

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

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**FISCAL YEAR 2024
QUARTER I
(OCTOBER–DECEMBER 2023) REPORT**



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FISCAL YEAR 2024
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PROJECT OVERVIEW

Program Name:		USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program
Reporting Period:		Fiscal Year 2024 Quarter I (October-December 2023)
Activity Start Date and End Date:		September 20, 2018–September 19, 2024
Name of Prime Implementing Partner:		Management Sciences for Health
Contract Number:		7200AA18C00074
MTaPS Partners:	Core Partners:	Boston University, FHI360, Overseas Strategic Consulting, Results for Development, International Law Institute-Africa Centre for Legal Excellence, AUDA-NEPAD
	Global Expert Partners:	Brandeis University, Celsian Consulting, Deloitte USA, Duke-National University of Singapore, El Instituto de Evaluacion Technologica en Salud, IC Consultants, MedSource, IQVIA, University of Washington
	Capacity Resource Partners:	African Health Economics and Policy Association, Ecumenical Pharmaceutical Network, U3 SystemsWork, University of Ibadan, African Collaborating Centre for Pharmacovigilance and Surveillance, Kilimanjaro School of Pharmacy, Muhimbili University, Pharmaceutical Systems Africa
	Collaborators:	International Pharmaceutical Federation, Howard University, University of Notre Dame, WHO, World Bank

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ACRONYMS AND ABBREVIATIONS

3HP	once-weekly dose of isoniazid and rifapentine for 12 weeks
3PL	third-party logistics provider
4PL	fourth-party logistics provider
ACIPC	Advisory Committee for IPC
ACTB	Alliance for Combating TB in Bangladesh
ADE	adverse drug event
ADR	adverse drug reaction
ADRAC	adverse drug reaction advisory committee
aDSM	active TB drug safety monitoring and management
AE	adverse event
AEFI	adverse events following immunization
AFROHUN	Africa One Health University Network
AMC	antimicrobial consumption
AMDF	Africa Medical Devices Forum
AMR	antimicrobial resistance
AMRH	African Medicines Regulatory Harmonization Initiative
AMR-TCC	AMR Technical Thematic Committee
AMS	antimicrobial stewardship
AMU	antimicrobial use
ANARME, IP	<i>Autoridade Nacional Reguladora de Medicamentos, Instituto Público</i> [National Medicines Regulatory Authority, Public Institute] (Mozambique)
ANEH	National Hospital Evaluation Agency (Mali)
ARC	antimicrobial resistance containment
ARV	antiretroviral
ARVs	antiretroviral medicines
ASEAN	Association of Southeast Asian Nations
ASM	active safety monitoring
ASO	AMS optimal access and use
ASRAMES	<i>Association Régionale d'Approvisionnement en Médicaments Essentiels</i>
AUDA-NEPAD	African Union Development Agency's New Partnership for Africa's Development
AWaRe	Access, Watch, and Reserve
BCZ/S	<i>Bureau central de la zone/de santé</i> (DRC)
BSC	balanced scorecard
CAPA	corrective and preventive action
CASIC	County Antimicrobial Stewardship Interagency Committee

CASS	communication and awareness intervention for school students
CCS	community care site (DRC); <i>Centro de Colaboração em Saúde</i> (Mozambique)
CDC	US Centers for Disease Control and Prevention, Communicable Disease Control (Bangladesh)
CDR	regional distribution center (DRC)
CGD	Center for Global Development
CHD	Center for Health Development (Philippines)
CHTF	child health task force
CIPCAC	County Infection Prevention and Control Advisory Committee
CMD	chief medical director
CME	continuous medical education
CMSD	Central Medical Store Depot (Bangladesh)
CNAMM	National Marketing Authorization Commission (Mali)
CODESA	health area development committee
COE	center of excellence
COR	contracting officer representative
COI	conflict of interest
COVID-19	coronavirus disease 2019
COVD	COVID-19 vaccine delivery
CPD	continuing professional development
CQI	continuous quality improvement
CSL	Commodity Security and Logistics
CSO	civil society organization
CYP	couple-years of protection
DAV	Drug Administration Department of Vietnam
DDA	Department of Drug Administration (Nepal)
DEPS	DRC Ebola post-mortem surveillance
DFDS	Department of Food and Drug Services (Nigeria)
DGDA	Directorate General of Drug Administration (Bangladesh)
DGFP	Directorate General of Family Planning (Bangladesh)
DGHS	Directorate General of Health Services (Bangladesh)
DGSHP	General Directorate of Health and Public Hygiene (Mali)
DGSV	General Directorate of Veterinary Services (Burkina Faso)
DH	district hospital
DHIS 2	district health information system version 2
DMHP	Directorate of Hospital and Proximity Medicine (Côte d'Ivoire)

DNAM	<i>Direcção Nacional de Assistência médica</i> [National Directorate of Medical Assistance] (Mozambique)
DNF	National Directorate of Pharmacy (Mozambique)
DOH	Department of Health (Philippines)
DOHS	Department of Health Services (Nepal)
DPCB	Disease Prevention and Control Bureau (Philippines)
DPM	Directorate of Pharmacy and Medicine (Mali and DRC)
DPML	Directorate of Pharmacy, Medicines, and Laboratories (Cameroon)
DPS	<i>Division Provinciale de la Santé</i> [Provincial Health Division] (DRC)
DQA	data quality assurance
DQSHH	Directorate for Quality, Security, and Hospital Hygiene (Senegal)
DRC	Democratic Republic of the Congo
DR-TB	drug-resistant tuberculosis
DTC	drug and therapeutics committee
DTG	dolutegravir
EAC	East African Community
eAMS	electronic asset management system
eLMIS	electronic logistics management information system
EML	essential medicines list
e-SPAR	Electronic State Parties Self-Assessment Annual Reporting Tool
EVD	Ebola virus disease
EVML	essential veterinary medicines list
EWG	expert working group
FA	framework agreement
FAIG	framework agreement implementation guidelines
FAO	Food and Agriculture Organization
FDA	US Food and Drug Administration, Philippines Food and Drug Administration, Rwanda Food and Drugs Authority
FG	focus group
FGD	focus group discussion
FP	family planning
FS	field support
GAP	global action plan
GBT	Global Benchmarking Tool
GCMN-RAM	National MSC Group on AMR (Mali)
GFF	Global Financing Facility
GHeL	Global Health e-Learning Platform

GHPP	good hospital pharmacy practices
GHSA	Global Health Security Agenda
GHSC-PSM	Global Health Supply Chain Program—Procurement and Supply Management
GOB	Government of Bangladesh
GOJ	Government of Jordan
GOU	Government of Uganda
GPB	government procurement bylaw
GPD	government procurement department
GPP	good pharmacy practices
GRP	good regulatory practice
GSDP	good storage and distribution practices
GPVP	good pharmacovigilance practice
GWG	gender working group
HA	health area/account
HAD	health affairs directorate
HAI	health care—associated/acquired infection
HCAC	Health Care Accreditation Council
HCAD	Health Communication and Awareness Directorate
HCAI	health care—associated/acquired infection
HCF	health care facility
HCP	health care provider/practitioner/professional
HCW	health care worker
HCWM	health care waste management
HEOC	health emergency operation center
HEU	health economic unit
HF	health facility
HH	hand hygiene
HHSAF	Hand Hygiene Self-Assessment Framework
HQ	headquarters
HSR 2022	Seventh Global Symposium on Health Systems Research
HTA	health technology assessment
HWDP	health workforce development plan
HZ	health zone
ICC	infection prevention and control committee
iCCM	integrated community case management
ICU	intensive care unit

IDDS	infectious disease detection and surveillance
IEC	information, education, and communication
IFRC	International Federation of Red Cross
IGAD	Intergovernmental Authority on Development
IHR	International Health Regulations
IMS	information management system
IMS	Ebola incident management structure (Senegal)
InaHTAC	Indonesia HTA Committee
INH	isoniazid
INRB	<i>Institut National de Recherche Biomédicale</i>
IP	implementing partner
IPC	infection prevention and control
IPCAF	Infection Prevention and Control Assessment Framework
IPCAT2	Infection Prevention and Control Assessment Tool 2
IPNET	Infection Prevention Network
IRB	institutional review board
IRIMS	Integrated Regulatory Information Management System
ISO	International Organization for Standardization
IVD	in vitro diagnostic
JEE	Joint External Evaluation
JFDA	Jordan Food and Drug Administration
JLN	Joint Learning Network
KAP	knowledge, attitudes, and practices
KMITS	Knowledge Management and Information Technology Service (Philippines)
KNMF	Kenya National Medicines Formulary
LCP	Lung Center of the Philippines
LGU	local government unit
LHSS	Local Health System Sustainability project
LMICs	low- and middle-income countries
LMIS	logistics management information system
LTAP	local technical assistance provider/programs (Philippines)
M&E	monitoring and evaluation
MA	marketing authorization
MAAIF	Ministry of Agriculture, Animal Industry, and Fisheries (Uganda)
MALAP	Maturity Level Action Plan
MALF	Ministry of Agriculture, Livestock, and Fisheries (Burkina Faso)

MCC	Multisectoral Coordinating/Coordination Committee
MCCH	maternal, child, and community health
MCDA	multicriteria decision analysis
MDA	ministries, departments, and agencies
MER	medicines evaluation and registration
MERL	monitoring, evaluation, research, and learning
MIC	middle-income country
MIHR	USAID MOMENTUM Integrated Health Resilience project
MIS	management information system
MKA	Momentum Knowledge Accelerator project
ML	maturity level
MMD	multimonth dispensing
MMS	medicines management supervisors
MNCH	maternal, newborn, and child health
MOES	Ministry of Education and Sports
MOH	Ministry of Health (sometimes MoH)
MOHCDGEC	Ministry of Health, Community Development, Gender, Elderly, and Children (Tanzania)
MOHFW	Ministry of Health and Family Welfare (Bangladesh)
MOHP	Ministry of Health and Population (Nepal)
MOPH	Ministry of Public Health
MPTF	Multi-Partner Trust Fund Office
MSC	multisectoral coordination
MSC-AMR	multisectoral coordination on AMR
MSH	Management Sciences for Health
MSR	medical and surgical requisites
MSSFPO	Momentum Safe Surgery in Family Planning and Obstetrics
MTaPS	Medicines, Technologies, and Pharmaceutical Services
MTC	medicines and therapeutics committee
NAMRAC	National Antimicrobial Resistance Advisory Committee
NAMRsC	national AMR subcommittee
NAP	national action plan
NAP-AMR	national action plan for AMR
NASIC	National Antimicrobial Stewardship Interagency Committee (Kenya)
NC-AMR	National Commission on AMR (DRC)
NCAT	National Committee for Antibiotic Treatment (Senegal)

NCD	noncommunicable disease
NCDC	Nigeria Center for Disease Control
NCDC	National Curriculum Development Center (Uganda)
NDA	National Drug Authority (Uganda)
NEML	national essential medicines list
NGO	nongovernmental organization
NMP	national medicines policy
NMRA	national medicines regulatory authority
NPC	National Pharmacy Council
NRA	national regulatory authority
NSP	national strategic plan
NTC	National Technical Committee (Bangladesh)
NTP	National Tuberculosis Control Program (Bangladesh)
OH	One Health
OHP	One Health Platform
OHS	Office of Health Systems
OHT	One Health Tool
OP	operational plan
OSH	occupational safety and health
PBF	performance-based financing
PCPD	Pharmacy and Clinical Pharmacy Directorate (Jordan)
PCR	polymerase chain reaction
PD	Pharmaceutical Division (Philippines)
PEA	political economy analysis
PERAC	pharmacovigilance expert review and advisory committee
PIES	provider integration and engagement system
PMDT	programmatic management of drug-resistant TB
PMED	Pharmaceuticals and Medical Equipment Directorate (Ethiopia)
PMS	post-market surveillance
POPCOM	Commission on Population and Development (Philippines)
PPB	Pharmacy and Poisons Board of Kenya
PPE	personal protective equipment
PPM	pooled procurement mechanism
PPS	point prevalence study/survey
PPSSP	<i>Programme de Promotion de Soins de Santé Primaires</i> (DRC)
PQM+	Promoting the Quality of Medicines Plus

PRH	population and reproductive health
PRIMS	Pharmaceutical Regulatory Information System
PS	procurement service
PSA	Pharmaceutical Systems Africa
PSCM	procurement and supply chain management
PSCMT	Procurement and Supply Chain Management Team (Philippines)
PSD	Procurement and Supply Directorate
PSS	pharmaceutical systems strengthening
PSU	pharmaceutical services unit
PSUR	periodic safety update report
Pusjak PDK	Policy Center of Health Financing and Decentralization (Indonesia)
PV	pharmacovigilance
PViMS	Pharmacovigilance Monitoring System
PY	program year
QMS	quality management system
RBC	Rwanda Biomedical Center
RDT	rapid diagnostic test
REC	regional economic community
RECO	community health worker (DRC)
REDISSE	Regional Disease Surveillance Systems Enhancement
RH	reproductive health
RHB	regional health bureau
RHMT	regional health management team
RMS	Royal Medical Services (Jordan)
RSS	regulatory systems strengthening
RUA	rational use of antimicrobials
RWE	real-world evidence
SADC	Southern African Development Community
SC	steering committee
SCM	supply chain management
SCMP	supply chain management portal
SCMS	Supply Chain Management Service (Philippines)
SDP	service delivery point
SDG	Sustainable Development Goal
SEARN	South-East Asia Regulatory Network
SHA	Systems for Health Accounts

SHD	School Health Directorate (Jordan)
SI	strategic information
SIAPS	Systems for Improved Access to Pharmaceuticals and Services Program
SMT	senior management team
SOP	standard operating procedure
SOW	scope of work
SPARS	supervision, performance assessment, and recognition strategy
SSI	surgical site infection
STG	standard treatment guideline
SWOT	strengths, weaknesses, opportunities, and threats
TA	technical assistance/advice
TB	tuberculosis
TLD	dolutegravir-based tenofovir + lamivudine + dolutegravir
TOE	table of organization and equipment
TOR	terms of reference
TOT	training of trainers
TPT	TB preventive treatment
TS	technical secretariat
TTC	technical thematic committee
TWC	technical working committee
TWG	technical working group
UAT	user acceptance testing
UHC	universal health coverage
UIMS	Upazila Inventory Management System (Bangladesh)
UNFPA	United Nations Population Fund
USAID	US Agency for International Development
USD	US dollar
USG	US government
VAMOHS	Voluntary Access Mechanism for Originator Health Supplies
VSS	vaccine safety surveillance
WAAW	World AMR Awareness Week
WASH	water, sanitation, and hygiene
WB	World Bank
WHO	World Health Organization
WIMS	Warehouse Inventory Management System
WOAH	World Organization for Animal Health

I. INTRODUCTION

A. PURPOSE

Funded by USAID and implemented by a team led by MSH, the purpose of the six-year MTaPS program (2018–2024) is to provide PSS assistance for sustained improvements in health system performance and to advance USAID’s goals of preventing child and maternal deaths, controlling the HIV/AIDS epidemic, combating infectious disease threats, and expanding essential health coverage.

B. MTaPS’ GOAL AND OBJECTIVES

The goal of the MTaPS program is to help LMICs strengthen their pharmaceutical systems to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medicines, vaccines, and other health technologies and pharmaceutical services. In this context, MTaPS uses the term “access” to refer specifically to affordability, acceptability (or satisfaction), geographical accessibility, availability, and equity (the extent to which pharmaceutical systems deal fairly with population subgroups differentiated along various parameters). The program’s utilization of “use” refers to prescribing, dispensing (or sale or supply to the user), and consumption (or end use).

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

C. MTAPS’ APPROACH TO STRENGTHENING PHARMACEUTICAL SYSTEMS

The program’s theory of change is based on USAID’s vision for PSS, which posits six functions of health systems that must be strengthened to achieve sustained and equitable access to essential, high-quality services: human resources, health finance, health governance, health information, medical products/vaccines/technologies, and service delivery. MTaPS has adapted this framework to the pharmaceutical sector as per figure 1, which illustrates a comprehensive set of dynamic relationships among a health system’s functions with an overarching focus on the role medical products are expected to play in improving health system performance.

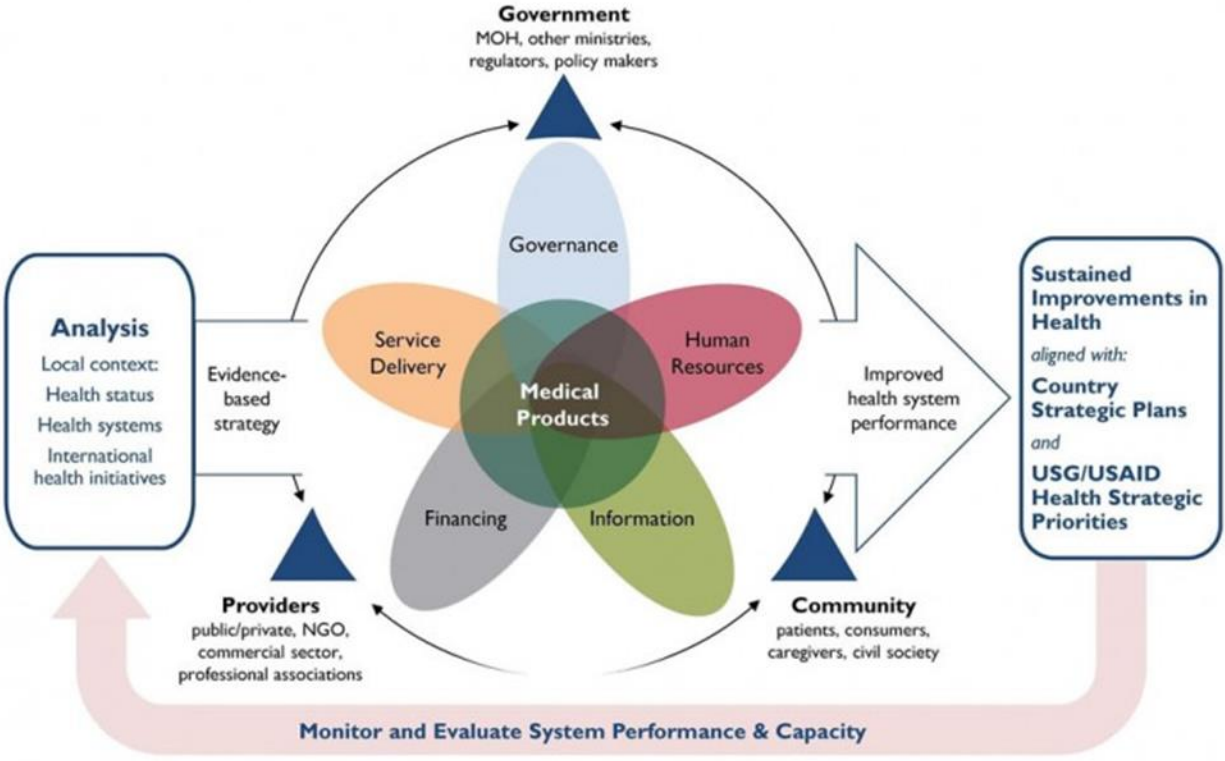


Figure 1. USAID pharmaceutical systems–strengthening approach

D. ABOUT THE REPORT

This report presents activity progress and achievements by portfolio for the first quarter of fiscal year 2024 (October–December 2023). It summarizes program performance and key challenges and is organized by program objectives, funding stream, country, and health element portfolios.

2. PROGRESS BY OBJECTIVES

A. OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

- **Sub-Objective 1.1:** Transparency and accountability of country pharmaceutical systems improved
- **Sub-Objective 1.2:** Evidence-based medicines policies, laws, regulations, guidelines, norms, and standards improved and enforced
- **Sub-Objective 1.3:** Stakeholder engagement and empowerment, including civil society and consumers, increased

OVERVIEW

Promoting transparency and accountability is a prerequisite for improving access to essential medicines and medical technologies, which is required to achieve UHC.¹ Poor governance in pharmaceutical systems can reduce access to pharmaceutical products, inflate medicine prices, and waste scarce health system resources.² Governance plays a critical role in minimizing opportunities for corruption and mitigating other system inefficiencies. It also shapes the ability of the health system to mature and respond to challenges. This section highlights select country progress to date and indicative activities undertaken during Q1, FY24.

CUMULATIVE PERFORMANCE TO DATE

Strong pharmaceutical-sector governance is fundamental to well-performing pharmaceutical systems. A key feature for improving these systems is the understanding that it takes time and significant engagement to review and improve governance components. Examples of MTaPS' cumulative work, aligned to local pharmaceutical systems priorities, are provided below.

SUB-OBJECTIVE 1.1: TRANSPARENCY AND ACCOUNTABILITY OF COUNTRY PHARMACEUTICAL SYSTEMS IMPROVED

Cameroon: Governance underpins the success of GHSA interventions. MTaPS supported the TS-MCC, OHP, and other departments of the MOPH to develop an NAP-AMR monitoring framework to monitor and track implementation progress of the plan across different health sectors. Under the leadership of the DPML, MTaPS has supported DTCs to take ownership over the implementation of their own AMS programs. These DTCs have implemented self-initiated AMS activities and continue to implement a CQI approach with incremental self-improvement targets.

Indonesia: HTA systems allows transparency in how government funding is used to support the introduction of medical products and technologies. MTaPS co-developed HTA processes and a manual by infusing MCDA and enhancing transparency in the HTA topic selection process.

¹ Wirtz VJ, Hogerzeil HV, et al. Essential medicines for universal health coverage. *The Lancet*. 2017. 389(10067):403–476.

² World Health Organization. 2013. *Good Governance in the Pharmaceutical Sector*. Geneva.

SUB-OBJECTIVE I.2: EVIDENCE-BASED MEDICINES POLICIES, LAWS, REGULATIONS, GUIDELINES, NORMS, AND STANDARDS IMPROVED AND ENFORCED

Burkina Faso: Agreed guidelines among sectors underpin the control of antibiotics to reduce AMR. MTaPS, in collaboration with the FAO and other partners, supported the DGSV to develop guidelines and draft a ministerial order regulating antimicrobial use in the animal sector. The ministerial order was then submitted to the Minister of Agriculture, Animal Resources, and Fisheries for approval and signature.

Rwanda: To strengthen the regulation of pharmaceutical products, MTaPS supported the Rwanda FDA to develop a four-year strategic plan (2021–2024); a costed five-year business plan (2021–2026); 12 regulations; and other pharmaceutical-sector regulatory documents (e.g., guidelines, manuals, SOPs) to guide delivery of effective regulatory services and adequate control of the pharmaceutical market.

Tanzania: To create awareness of bottlenecks, improve regulatory guidelines for ARVs and streamline import clearance procedures, and minimized wastage of essential HIV/AIDS and other disease management products, MTaPS facilitated a comprehensive process improvement mapping for the registration and importation of ARVs in the public sector. This initiative aimed to identify and address barriers and bottlenecks in the ARV supply chain by involving both the TMDA and medicines importers.

SUB-OBJECTIVE I.3: STAKEHOLDER ENGAGEMENT AND EMPOWERMENT, INCLUDING CIVIL SOCIETY AND CONSUMERS, INCREASED

Côte d'Ivoire: Formalized working groups empower wider stakeholder engagement in AMR. Since MTaPS' inception, Côte d'Ivoire has established an MSC mechanism for zoonotic diseases and a TS and TWGs to monitor AMR activities. Through a decree in April 2019, the Ivorian government formalized the OHP to institutionalize a national MSC mechanism to address public health threats, including AMR. MTaPS supported the country to establish an AMR TWG to monitor AMR activities. This TWG is connected to the OHP through a national coordinating body called the MSC Group. MTaPS helped to finalize the TOR and guidance manual for this body and its subcommittees.

Ethiopia: To strengthen the operational capacity of the NAMRAC, MTaPS facilitated its restructuring, including updating its membership to ensure broader stakeholder participation, revising its TOR, and developing TOR for its IPC and AMS TWGs. MTaPS also engaged various civil society organizations, including the women's federation, youth federations, and the Ethiopian Pharmaceutical Association for AMR awareness and sensitization forums.

QUARTER I/Y6 ACHIEVEMENTS AND RESULTS

The following country examples highlight the range of pharmaceutical governance activities conducted by MTaPS during the reporting period.

SUB-OBJECTIVE I.1: TRANSPARENCY AND ACCOUNTABILITY OF COUNTRY PHARMACEUTICAL SYSTEMS IMPROVED

NPSU Guidance: MTaPS is assessing the roles of National Pharmaceutical Services Units (NPSUs) and preparing guidance based on a global desk review and case studies in Nepal, Kenya, and Côte d'Ivoire. In

this quarter, MTaPS drafted the technical report and manuscript on the study. Preparations continued this quarter for a webinar to share the importance of NPSUs and guidance to support the scope and work of these important PS governance entities.

PSS Insight: Measuring PSS is critical for countries to monitor improvements and identify areas for improvement. During this quarter, MTaPS updated the technical report, seeking to finalize the list of indicators for PSS Insight v2.0, country reports of the pilot findings, and associated Performance Indicator Reference Sheets as annexes. The report will be finalized in January 2024.

MTaPS made further progress in the finalization of the digital PSS Insight tool, which will accompany the report.

Côte d'Ivoire: To further improve the accountability of antibiotic use, MTaPS supported the AMR TWG in organizing a workshop to revise the governance manual for the fight against AMR in Côte d'Ivoire. This workshop led to a change in the status of the MSC Group, which is no longer a member body of the AMR TWG but rather a consultative body that collaborates with the AMR TWG board for AMR containment. The body was also critical in establishing an AMR TWG board with monthly meetings to monitor activities.

Jordan: To enhance and expand the introduction of e-Procurement systems, MTaPS facilitated a series of technical workshops involving key stakeholders from the GPD, including the project management and information technology (IT) units, the Automation Advisory Committee, and the subcontracted IT company responsible for enhancing and expanding the existing Jordan Online E-Procurement System. Workshop participants identified procedures within the FA SOPs that could be automated and determined those to be performed offline. As a result, preliminary FA workflows were collaboratively developed.

SUB-OBJECTIVE 1.2: EVIDENCE-BASED MEDICINES POLICIES, LAWS, REGULATIONS, GUIDELINES, NORMS, AND STANDARDS IMPROVED AND ENFORCED

Bangladesh: To improve maturity of the DGDA toward ML3, MTaPS supported the DGDA to address GBT requirements, including the development of the 2024 action plan, drafting and reviewing the GRP guidelines, disseminating the Drugs and Cosmetics Act 2023, drafting a competency matrix, developing training modules/materials for both GVP and the national PV guidelines, and preparing DGDA regulatory personnel as trainers on both guidelines.

Nepal: To strengthen the regulation of pharmaceutical products, MTaPS and the DDA organized two rounds of meetings in November and December 2023 with the Nepal Law Commission; MOHP; Ministry of Law, Justice, and Parliamentary Affairs; and USAID Nepal to move the approval process of the drafted Drug Act forward to Parliament. Further, MTaPS reviewed the progress in implementing the institutional development plan with DDA staff in preparation for participation in the South-East Asia Region conference to discuss the *Model for effective regulation of medicines for NRAs with limited resources*, which took place October 23–25, 2023, at the WHO Regional Office.

Philippines: National PSCM strategies and clear warehouse procedures provide necessary elements to support national availability of medicines. MTaPS is supporting the DOH in developing a five-year (2024–2028) National Strategy for PSCM. MTaPS engaged a local organization, Procurement and Supply

Institute of Asia; conducted key informant interviews; and gathered information from DOH offices to analyze the current state of PSCM and the implementation progress of the 2019–2023 National Strategic Plan. Further, MTaPS drafted procedures on regular data analysis practices to be included in the warehouse operation manual focusing on the recently designed inventory control systems. In addition, MTaPS drafted storage considerations requirements for sites with insufficient warehouse capacity, particularly at LGUs. and rural health units.

SUB-OBJECTIVE 1.3: STAKEHOLDER ENGAGEMENT AND EMPOWERMENT, INCLUDING CIVIL SOCIETY AND CONSUMERS, INCREASED

DRC: MTaPS, in collaboration with WHO and the FAO, supported the NC-AMR and the faculties of Medicine and Pharmacy of the University of Kinshasa to organize the DRC’s celebration of WAAW. This support included organizing workshops to raise awareness and to sensitize more than 400 students, as well as scientific and administrative staff, on the risks presented by AMR. Organizers encouraged all participants to unite in the fight against AMR and to use antibiotics only as necessary and when prescribed by qualified health personnel. The theme of WAAW for 2023 remained “Preventing antimicrobial resistance together”, as it was in 2022.

Kenya: As part of a sustainability plan for the implementation of the NAP-AMR, MTaPS, in collaboration with the NASIC Secretariat, conducted an AMR stakeholder consultative meeting November 17, 2023, that mapped AMR stakeholders in the country. In attendance were 34 representatives from different organizations. MTaPS also supported Murang’a County with its 2nd AMR symposium November 22, 2023, that aimed at creating awareness on AMR and targeted community and religious leaders, youth, and agriculture and human health community workers; 36 participants (19 male, 17 female) attended. In collaboration with the Nyeri CASIC, MTaPS launched the next iteration of the CASIC work plan 2023–2025 on November 23, 2023, engaging 65 participants (34 male, 31 female) during the Nyeri close-out and dissemination meeting.

BEST PRACTICES/LESSONS LEARNED

- Improving pharmaceutical governance in countries requires tailoring interventions based on a detailed understanding of the context. Multiyear support and consistent, frequent engagement of all key stakeholders is necessary to ensure system improvement and sustainability. MTaPS’ multiyear support in Cameroon, Nepal, Jordan, Philippines, and Rwanda successfully demonstrate this approach and achievement across different areas of the pharmaceutical system.
- Creating, updating, and improving SOPs, guidelines, plans, policies, and other strategic documents are lengthy and involved processes that require the input and buy-in of multiple stakeholders, usually over a period of years as observed in Nepal and Rwanda. These documents are critical to ensuring the sustainability of PSS efforts and provide a legacy for the program that extends well beyond the life of MTaPS.

B. OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT AND SERVICES INCREASED, INCLUDING REGULATION OF MEDICAL PRODUCTS

- **Sub-Objective 2.1:** Innovative and proven approaches for human resource capacity building institutionalized
- **Sub-Objective 2.2:** Capacity of government to manage pharmaceutical systems strengthened
- **Sub-Objective 2.3:** Capacity of private-sector organizations to support pharmaceutical operations improved
- **Sub-Objective 2.4:** Medicine regulatory capacity strengthened, including through regional regulatory harmonization

OVERVIEW

Capacity strengthening of individuals and institutions is a critical aspect of sustainability within MTaPS. Sustainable pharmaceutical systems require more than just training. MTaPS focuses on capacity strengthening to ensure that the range of activities the program is involved in produces a legacy in areas that include integrating e-Learning materials into the learning system of ministries for ongoing use, supported TWGs functioning without ongoing support from MTaPS, and digital solutions that are seamlessly embedded into the workflows of pharmaceutical systems. MTaPS aims to enable mature pharmaceutical systems—including regulatory systems—in countries, leaving the responsibility for these systems in the hands of local counterparts.

CUMULATIVE PERFORMANCE TO DATE

This section documents progress in selected MTaPS institutional and human resource capacity strengthening activities from the start of the project to demonstrate improvements through the application of MTaPS' PSS approach. Institutional capacity strengthening to achieve stable and effective regulatory systems (sub-objective 2.4) is essential for sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medical products and pharmaceutical services that contribute to better health care delivery systems.

SUB-OBJECTIVE 2.1: INNOVATIVE AND PROVEN APPROACHES FOR HUMAN RESOURCE CAPACITY BUILDING INSTITUTIONALIZED

MTaPS' interventions to institutionalize pharmaceutical system improvements are systematic in nature and context specific. Cameroon provides an example of multipronged capacity strengthening interventions resulting in institutionalized IPC systems.

Cameroon: MTaPS supported an initial baseline assessment of IPC practices in 38 HFs, followed by the development of IPC training curricula; the establishment of IPC committees in 12 HFs; the development of the national IPC guidelines and action plan; the training of 174 health staff (79 female, 95 male) in IPC; CQI of IPC practices in 12 HFs; and the development of a national surveillance protocol to monitor HCAls. From these interventions, MTaPS has supported IPC committees to become more autonomous,

implementing self-initiated IPC activities and continuing to implement a CQI approach with incremental self-improvement targets to ensure effective activity progress using the WHO IPCAT2 and IPCAF tools, respectively, to identify areas still requiring action and updating national and facility IPC action plans.

SUB-OBJECTIVE 2.2: CAPACITY OF GOVERNMENT TO MANAGE PHARMACEUTICAL SYSTEMS STRENGTHENED

MTaPS is active in a variety of pharmaceutical systems areas. Philippines stands as an example of how MTAps' support over the life of the project has contributed to improved government ability to manage PSCM.

Philippines: MTAps provided TA to the DOH and the Commission on Population and Development to update and finalize a warehouse operation manual and train staff from different levels to roll out its use across the country. The NTP has successfully integrated 478 of 484 peripheral stores previously managed by implementing partners and outside upazila health complexes (UHCs). MTAps supported quantification guidelines and conducted a series of quantification training sessions for the DOH. As a result of these capacity-strengthening activities, the DOH has since been independent in processing stock data and oriented selected regions on stock data analysis. Due to these capacity-strengthening activities, the DOH has since been independent in processing stock data and oriented selected regions on stock data analysis.

SUB-OBJECTIVE 2.3: CAPACITY OF PRIVATE-SECTOR ORGANIZATIONS TO SUPPORT PHARMACEUTICAL OPERATIONS IMPROVED

Private-sector organizations are a key element in national pharmaceutical systems. This example from Côte d'Ivoire shows engagement with the private health sector as part of interventions to improve the use of pharmaceuticals, which is essential for quality patient care.

Côte d'Ivoire: MTAps supported a situational analysis of the capacity and functionality of ICCs and DTCs in four university teaching hospitals, 12 regional hospitals, and 4 private clinics in the human health sector, as well as in the veterinary clinic of the Ministry of Animal Resources and Fisheries' Regional Directorate of Bouaké and in the Antirabic Center of Cocody in the animal health sector. MTAps facilitated the development and validation of documents and training modules in IPC and AMS, training of HCPs, and the establishment of a CQI process in 20 HFs. The supported ICCs and DTCs are now functional, with clear TOR and capacity strengthening plans. Additionally, MTAps supported the development of e-Learning modules for training on IPC and AMS and assisted the AMR TWG to establish a regional pool of AMR trainers, including 18 master trainers and 36 regional AMR trainers, who will work across the public and private health sectors.

SUB-OBJECTIVE 2.4: MEDICINES REGULATORY CAPACITY STRENGTHENED, INCLUDING THROUGH REGIONAL REGULATORY HARMONIZATION

To strengthen regulatory systems in countries of interest, MTAps performed new assessments and reviewed previous assessments to determine the level of maturity of the regulatory system in five countries and to develop institutional development plans to address the gaps identified. MTAps worked with NRAs in Bangladesh, Burkina Faso, Cameroon, DRC, Kenya, Mali, Mozambique, Nepal, Philippines,

Rwanda, and Tanzania to assist in improving the maturity of these NRAs to acceptable levels. MTaPS collaborated with several continental and regional organizations (e.g., ASEAN, EAC, IGAD, SADC, SEARN) to support the convergence and harmonization of medical product regulation in product registration, PV, regulatory inspections, and regulatory information management systems. MTaPS offered technical assistance to validate and use the regional centers of regulatory excellence's M&E tool to measure the performance of 11 designated centers. This tool produced MTaPS baseline information on the status of the institutions and organizations that provide capacity development in medicine regulation.

Nepal: MTaPS made significant progress in several areas to improve the DDA's regulatory capability, including assisting in organizational restructuring of the DDA, strengthening regulatory systems to increase maturity levels, implementing OpenRIMS for medicine registration and PV, strengthening capacity and developing competence of personnel, and establishing QMS standards and practices. MTaPS provided technical assistance to the DDA in the implementation of the MALAP, which has enabled the authority to adequately address WHO GBT indicators linked to ML, with 64% of ML1, ML2, and ML3 indicators either implemented or awaiting approval. MTaPS is supporting the development of a new MIS known as the Drug Administration Management System 2 (DAMS2). With MTaPS' support, the DDA has addressed all 55 recommendations for ML1 and 2 indicators in the CAPA plan.

Asia Bureau: MTaPS used a mapping exercise to identify 18 key entities (initiatives, networks, and stakeholders), including ASEAN and the WHO Collaborative Procedure for Accelerated Registration, that strengthen pharmaceutical regulatory systems and potential opportunities for collaboration. Additionally, competency mapping for NRAs in Nepal, Bangladesh, and Philippines was conducted, aligning with the WHO global competency framework. Capacity strengthening plans were developed for these NRAs toward the achievement of ML3. MTaPS also facilitated technical capacity strengthening trainings on various aspects, including good manufacturing practice, vaccine dossier evaluation, and good review practices for medical products registration.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

SUB-OBJECTIVE 2.1: INNOVATIVE AND PROVEN APPROACHES FOR HUMAN RESOURCE CAPACITY BUILDING INSTITUTIONALIZED

This quarter, we highlight the integration of AMS and IPC e-Learning in Ethiopia in increasing access to and sustaining competency development in these two areas and the integration of the school AMR education program into government systems of Jordan.

Ethiopia: MTaPS, in collaboration with the MOH, launched digital versions of their IPC reference manual, AMS practical guide, and two e-Learning courses—one on IPC and the other on AMS—on the government e-Learning platform. The online IPC and AMS courses are seeing a significant increase in uptake since they were uploaded to the MOH website in July 2023. As of December 14, 2023, 446 participants were registered for the online course on IPC and 310 for the course on AMS, of whom 188 (42%) and 108 (35%) completed the courses and were certified, respectively.

Jordan: With MTaPS' support, the SHD has integrated the AMR CASS into its annual action plan, recognizing AMR awareness sessions for students as a new foundational activity. The MOH acknowledged CASS as a component of the awareness pillar in the updated AMR NAP for 2023—

2025. To implement and sustain CASS activities in additional schools, MTaPS will assist the SHD to organize TOT sessions for 40 health educators and school health supervisors from all Health Affairs Directorates (HADs) across Jordan, who will then conduct awareness sessions in additional schools beyond the life of the project.

SUB-OBJECTIVE 2.2: CAPACITY OF GOVERNMENT TO MANAGE PHARMACEUTICAL SYSTEMS STRENGTHENED

Procurement of medical products and technologies is a critical element within pharmaceutical systems. This quarter we highlight how MTaPS has been increasing the strength of procurement systems in Bangladesh.

Bangladesh: MTaPS conducted a two-day training for DGDA officials on the different steps of government procurement management process. Training materials were handed over to the DGDA for reference and future use. By using the training materials, procurement personnel will acquire valuable knowledge, advance their careers, and contribute more effectively to procurement activities used to purchase medical products. Successful procurement requires quality and timely data generated by eLMIS systems. In this quarter, MTaPS organized a collaborative meeting with MIS and CMSD to discuss the expansion of the eLMIS for the DGHS and the subsequent handover of the system to MIS, focusing on the transition process and the long-term sustainability of the system. MIS and CMSD reached consensus to assume responsibility for the eLMIS technical support and system operation, enabling system maintenance after MTaPS closes.

SUB-OBJECTIVE 2.3: CAPACITY OF PRIVATE-SECTOR ORGANIZATIONS TO SUPPORT PHARMACEUTICAL OPERATIONS IMPROVED

Tanzania: MTaPS worked with the MOH, AMS and Awareness and Education TWGs, University of Dodoma, Muhimbili University of Health and Allied Sciences, and St. John's University to train 116 participants (53 female) from 14 hospitals using the AMS curriculum and training manual developed by MTaPS during PY5. The participants included regional and district pharmacists and public-private-partnership focal persons from seven regions. PO-RALG and APHFTA members were engaged for their support in continuing the roll-out of AMS implementation to the subnational, primary, and private sectors.

SUB-OBJECTIVE 2.4: MEDICINES REGULATORY CAPACITY STRENGTHENED, INCLUDING THROUGH REGIONAL REGULATORY HARMONIZATION

Nepal: The document scanning and indexing work at the DDA pharmacy and industry registration section was completed, and the records and procedures were handed over to the DDA, which now has about 50,000 files recorded and stored in the new repository system. MTaPS facilitated training on basic awareness of QMS at all three DDA branch offices (Birgunj, Biratnagar, and Nepalgunj). The DDA is now ready for external audit toward ISO 9001:2015 certification.

Migration of selected DAMS data to DAMS2 has been completed. The DDA proposed 70 new requirements applicable to all 7 modules of DAMS2. In consensus, 19 requirements for the pharmacy

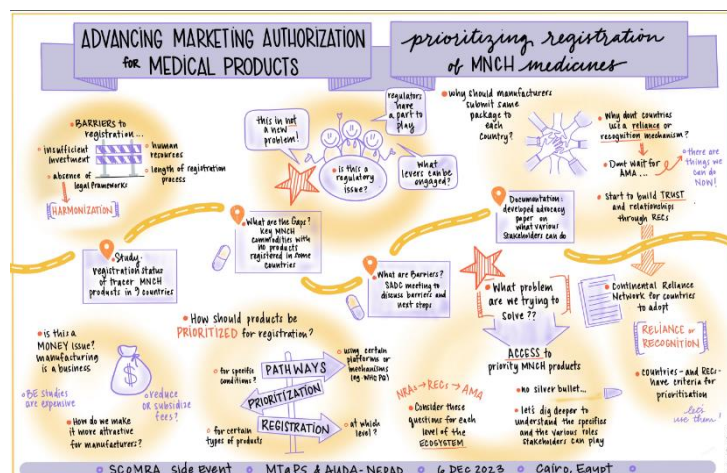
and wholesalers' registration module were considered critical, 15 of which were finalized, and work is ongoing on the remaining requirements.

Rwanda: In the first quarter of PY6, as part of PY5 activities, MTaPS collaborated with the Rwanda FDA to organize a three-week medicines dossier assessment workshop retreat. This initiative successfully reduced the backlog of pending medicine dossier applications, addressing 482 of more than 1,000 previously unassessed applications. This effort aimed to address the backlog and ensure readiness for the November 2023 WHO GBT assessment.

MTaPS collaborated with the Rwanda FDA and a software development consultant to operationalize and implement IRIMS. They successfully integrated IRIMS with national-level electronic systems and linked it to the e-signature platform through Rwanda Information Society Authority (RISA) digital certificates, enhancing license security and authenticity. To ensure sustainability, MTaPS assisted in drafting a service level agreement and facilitated its signing with the system developer, Softclans, for ongoing maintenance.

Regional African Regulatory Activity:

As part of the ongoing support to advance medicines regulation in Africa, MTaPS participated in the sixth Scientific Conference on Medicines Regulation in Africa (SCoMRA) December 4–8 in Cairo, Egypt. During the conference, the work supported the development of a Continental Reliance Framework and a strategy on digitalization of regulatory information management systems was presented. In addition, MTaPS hosted a side meeting for regulators, development partners, and implementing partners to advocate for prioritization of registration of MNCH medicines.



Sketchnote of the SCoMRA side meeting discussion, developed by Tobey Busch/USAID

Regional Asian Regulatory Activity: MTaPS engaged both the DGDA Bangladesh and the FDA Philippines to review the training plans and prioritization of topics for TA. MTaPS provided TA to SEARN through the guidance of SEARO to develop a capacity strengthening action plan and model for efficient regulations of medicines for NRAs with limited resources, while also developing regional guidance that can be applied by any NRA.

MTaPS engaged USAID and PPWG in a meeting organized by the ASEAN Secretariat on November 9, 2023, and presented the progress of agreed upon activities as well as the concept notes of planned activities for 2024.

BEST PRACTICES/LESSONS LEARNED

- To avoid delays in achieving project deliverables, it is vital to monitor changes in leadership of supported organizations and take proactive steps to orient new organizational leadership on existing

work plans and associated activities. When changes occurred in the AUDA-NEPAD/AMRH initiative, MTaPS successfully used this approach to ensure smooth continuing collaboration and avoid delays in implementation. Improving the capacity of governments to manage aspects of pharmaceutical systems (e.g., procurement in Bangladesh and Jordan; pharmaceutical regulation in Nepal, Rwanda, and Tanzania; antibiotic use in Ethiopia and Tanzania) requires multiyear PSS interventions planned and executed with local stakeholders to addressing governance, competency, and operating procedures.

- Government proactiveness and ownership significantly enhance enrollment in e-Learning courses. Issuing official notifications by relevant government authorities such as the DDGA in Bangladesh, as seen in the case of MTaPS-developed courses, positively impacts enrollment rates among government employees and other users.
- E-Learning platforms have rapidly grown and are increasingly common and sophisticated across the countries supported by MTaPS. The ubiquity of e-Learning provides the opportunity for continued training activities well beyond the project close out and enables local counterparts to more easily maintain, update, and administer capacity strengthening well into the future.

C. OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION FOR DECISION MAKING INCREASED AND GLOBAL LEARNING AGENDA ADVANCED

- **Sub-Objective 3.1:** Pharmaceutical management information systems that are interoperable and link patients and products effectively implemented
- **Sub-Objective 3.2:** Information on pharmaceutical systems available and used
- **Sub-Objective 3.3:** Pharmaceutical systems—strengthening research and global learning agenda advanced

OVERVIEW

MTaPS' overall strategic approach is to support governing bodies in using evidence-based recommendations and tested approaches to strengthen the pharmaceutical system. MTAps is providing technical assistance to ministries to build institutionalized and sustainable capacity, which is critical to achieving universal health coverage, the SDGs, and self-reliance.

CUMULATIVE PERFORMANCE TO DATE

SUB-OBJECTIVE 3.1: PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS THAT ARE INTEROPERABLE AND LINK PATIENT AND PRODUCTS EFFECTIVELY IMPLEMENTED

Bangladesh: In PY2, MTAps successfully expanded the eAMS to cover all 61 DHs nationwide. The organization collaborated with the NTP to create a phased transition plan, evaluating options for integrating storage systems for TB medicines. The NTP has successfully integrated 478 of 484 peripheral stores that were previously managed by implementing partners and situated outside upazila health complexes (UHCs). MTAps continued its support to the NTP by aiding in the recording and reporting of high-quality TB data. All 868 TB sites now submit necessary information electronically to the NTP using e-TB Manager. In PY3, e-TB Manager was improved to facilitate electronic reporting of aDSM and interoperability with the Janao app, enabling the capture of TB data from the private sector. In PY5, the system incorporated a dashboard with selected indicators to facilitate reporting analysis and prompt decision making. Collaborating with the NTP, MTAps introduced the eLMIS for TB commodities in all 64 districts and 485 sub-districts (upazilas) across the country.

Nepal: The DDA has experienced an expansion of its role and responsibilities across diverse domains such as medicines registration regulation, clinical trial oversight, PV, health technology product registration, and pharmacy and wholesaler inspection. To formalize and digitize these functions, MTAps has provided technical assistance in the development of a new MIS called the Drug Administration Management System 2 (DAMS2). This collaborative effort among MTAps, the DDA, and a local vendor involves data migration and customization of DAMS2, including the implementation of online payment functionalities. The initiative aims to modernize and streamline various processes within the DDA, enhancing efficiency and effectiveness in managing its expanding set of responsibilities.

Philippines: MTAps has played a crucial role in supporting the DOH in implementing an end-to-end eLMIS aimed at improving supply chain visibility and efficiency, particularly for COVID-19 vaccines. To

date, 214 warehouses, including central, regional, LGU, and service delivery point, have operational eLMIS. MTaPS collaborates with various agencies for eLMIS implementation, securing USD 949,405.45 from non-USAID sources. With MyCure and ReachHealth, MTaPS conducted UAT for the web-based PIES in the Mabini, Batangas City, Bauan, San Pascual, Sta Rosa City, Binan City, and Cabuyao City LGUs. The goal of the UAT was to introduce the system, test whether it was configured according to the requirements, and elicit feedback from users.

Rwanda: To increase efficiency of the Rwanda FDA's regulatory functions, MTaPS provided technical support in the implementation of the IRIMS, which was customized to the Authority's requirements and implemented with training of internal and external users. MTaPS worked with the Rwanda FDA to facilitate final hosting of the IRIMS in the country's National Data Center. The IRIMS has since gone live, enhancing the efficiency and accountability in regulatory service provision and access to information for decision making at the Authority. MTaPS strengthened PV in Rwanda by developing a costed multiyear national plan and training 19 participants from the National Pharmacovigilance Advisory Committee and Rwanda FDA. The electronic PViMS was adapted to facilitate reporting of AEs, including AEFI for Ebola and COVID-19 vaccines. From June 2021 to September 2023, 1,708 AEFI (776 serious) were reported, ensuring quick analysis by the Rwanda FDA and timely regulatory feedback. MTaPS also supported PViMS interoperability with WHO's VigiFlow using a specialized E2B format.

SUB-OBJECTIVE 3.2: INFORMATION ON PHARMACEUTICAL SYSTEMS AVAILABLE AND USED

Bangladesh: MTaPS supported the evaluation of 162 AE reports and at least 6 regulatory decisions for selected medicines, including all injectable antibiotics, for electronic reporting of aDSM. In PY5, the system was enhanced with a dashboard to provide a graphic and quantitative summary of selected indicators for reporting and decision making.

Mozambique: Using PViMS, 149 AEs were reported by 105 patients. The most frequently recorded AEs included headache, insomnia, nausea, and skin rash. The study, conducted by ANARME, IP, successfully achieved its objectives, which involved characterizing the AE profile among patients using TLD and estimating the incidence of AEs, including adverse pregnancy outcomes. MTaPS played a crucial role in supporting ANARME, IP by assisting in data cleaning to enhance the quality of the information gathered during patient follow-up visits. Unique patient records were then entered into PViMS. Additionally, MTaPS provided support for capacity building, particularly on causality assessment, and offered practical training on the use of PViMS. Nine individuals (five females and four males) were trained. In PY4, PViMS was updated to include TPT data collection forms, further enhancing its capabilities and relevance.

Philippines: Since the start of the PViMS rollout in PY3, MTaPS has been able to reach 100% (199) of TB facilities. To date, 597 AEs have been reported through PViMS, and causality assessments have been conducted for decision making. Additionally, MTaPS supported the DOH in analyzing stock information for key tracer TB, FP, and HIV commodities starting in PY3 to make informed decisions to ensure uninterrupted availability of key program commodities. MTaPS has enhanced PViMS to monitor patient safety, ensuring interoperability with VigiFlow.

Rwanda: The IRIMS application has gone live, enhancing efficiency and accountability in regulatory service provision and access to information for decision making. MTaPS supported the Rwanda FDA to

adapt PViMS for spontaneous reporting of AEs, including AEFI for Ebola and COVID-19 vaccines, and for active safety monitoring of DTG-based ARV therapy regimens. From June 2021 to September 2023, 1,708 AEFI (776 of which were serious AEs) were reported to the Rwanda FDA, which subsequently reported them to WHO. The use of PViMS ensures that medicine safety monitoring reports are quickly received and analyzed by the Authority, which can then provide regulatory feedback to clients, patients, and HFs in a timely manner.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

SUB-OBJECTIVE 3.1: PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS THAT ARE INTEROPERABLE AND LINK PATIENT AND PRODUCTS EFFECTIVELY IMPLEMENTED

Bangladesh: A joint consultative meeting between the CMSD and MIS unit of DGHS reviewed the successful implementation of the eLMIS at the CMSD with MTaPS' technical facilitation. As a result, it was agreed to expand the system to HFs in four selected districts, considering their performance and accessibility. This expansion aims to ensure effective and equitable use of health commodities for quality health care services. The system-generated real-time stock data will support evidence-based decision making for DGHS managers, including rational procurement plans and emergency supply replenishment. The activity aligns with the transition plan developed by the CMSD, MIS, and MTaPS in PY5, emphasizing collaborative efforts to enhance eLMIS efficiency in the health sector.

MTaPS and the DGFP collaborated on an eLMIS implementation plan, approved by the Director General, targeting seven maternal and child welfare centers in two districts. If successful, the DGFP plans to expand the system countrywide. The eLMIS captures real-time logistics and medicine data, aiding evidence-based decisions for equitable availability of FP and MCH commodities. The Logistics and Supply unit will spearhead nationwide scale-up, pending budget approval in the next Health Sector Program, aligning with the jointly developed transition plan in PY5.

The National Institute of Cancer Research & Hospital (NICR&H) was chosen as the pilot tertiary-level hospital for the eAMS rollout by Hospital Services Management (HSM) of the DGHS. A joint visit by HSM and MTaPS introduced eAMS to NICR&H authorities. To assess the NICR&H's asset/equipment management knowledge and practices, a situation analysis will be conducted, leading to a jointly developed implementation plan with HSM and the NICR&H for seamless implementation and government ownership. In the current quarter, one maintenance ticket from DHs remains unresolved. Of the 429 UHCs, 421 (98%) have started entering assets into eAMS, totaling 4,656 assets as of December 31, 2023. This aligns with the transition plan developed by HSM, DGHS MIS, and MTaPS in PY5.

MTaPS continues its collaborative efforts with government entities to facilitate the smooth transition of each developed system. In a recent meeting involving MTaPS, MIS, and the CMSD, discussions centered on expanding the eLMIS for the DGHS. The focus was on the subsequent handover of the system to MIS, emphasizing the transition process and ensuring long-term sustainability. Consensus was reached, with both MIS and the CMSD agreeing to assume responsibility for the eLMIS, including technical support and system operation.

Nepal: The installation of networking and intercom systems at the DDA continued following approval from USAID. A meeting with the Financial Comptroller General Officer was conducted to finalize the digital payment module in DAMS2 for pharmacy and wholesaler registration. A local vendor submitted a feasibility and complexity report for integrating local features into DAMS2, currently under review by MTaPS and the DDA.

Five helpdesk consultants at DDA central and branch offices actively supported applicants, and the migration of selected DAMS data to DAMS2 is complete. The DDA proposed 70 new requirements for all seven DAMS2 modules. In consensus, 19 of the new requirements for the pharmacy and wholesalers' registration module were deemed critical, with 15 finalized and ongoing work on the remainder. However, a critical request for multiple modifications in DAMS2 is pending, causing a delay in the go-live date. Developers estimate that resolving this issue may take up to three months, prompting a review of the implementation timeline to expedite necessary adjustments for DAMS2's official launch. The implementation of DAMS2 aims to enable comprehensive tracking and performance reporting of medicine registrations, pharmacy and wholesaler activities, and inspections for effective regulatory oversight and enhanced accountability in the health care system.

Philippines: MTaPS expanded the rollout of the eLMIS to 106 additional sites, bringing the total functional sites to 214, including central and regional warehouses, local warehouses, and service delivery points. Notably, the eLMIS was fully deployed in the CHD Davao region, providing real-time visibility of the supply chain. To support eLMIS utilization, MTaPS assisted the DOH in creating a monitoring checklist, which was piloted in CHD Davao, CHD Cebu, and selected LGUs. Lessons learned will inform checklist updates for advancing eLMIS implementation. Additionally, MTaPS drafted TOR for the transition from the Pharmaceutical Management Information System to eLMIS, preparing for phase 4 implementation to rural health units. Further support included updating the eLMIS FAQs; improving user experience; and enhancing online forms for optimized support activities, including the deployment master file and lessons learned repository.

Rwanda: MTaPS continued to work with the Rwanda FDA and the software development consultant to support IRIMS operationalization and implementation of critical system integrations with other Rwandan national-level electronic systems. In addition, the integration of the IRIMS with the e-signature platform through RISA digital certificate is now complete, making the licenses issued by the Rwanda FDA more secure and authentic. To ensure the sustainability of the system, MTaPS has continued to implement key transition activities, including supporting the Rwanda FDA in preparing a service level agreement and facilitated the signing of the agreement with the system developer, Softclans, for system maintenance. In collaboration with focal Rwanda FDA staff, system requirements specifications (SRS) for a QMS module were prepared in response to the Authority's need to integrate quality management with the IRIMS. The SRS will be used in the development of the QMS module in the next quarter.

SUB-OBJECTIVE 3.2: INFORMATION ON PHARMACEUTICAL SYSTEMS AVAILABLE AND USED

Bangladesh: All 485 upazila health complexes submitted indents for October–December 2023 through the eLMIS for TB commodities, and all 64 district health authorities approved them. The NTP's central warehouse received electronic indents and prepared issue vouchers electronically for all UHCs for the first time ever. This electronic system allows the NTP to visualize stock, requirements, and supply-related information, ensuring an uninterrupted supply of TB commodities in all UHCs.

To enhance supervision and monitoring, MTaPS created credentials for central, division, and district-level access to the TB eLMIS, collaborating with the NTP. Two day-long orientations on e-TB Manager and TB eLMIS data use and analysis for decision making were organized by the NTP in Rajbari and Gopalganj districts and facilitated by MTaPS. With this capacity-strengthening initiative, health managers are expected to contribute to ensuring data quality and to generating and submitting quarterly cohort reports on TB case detection, treatment outcomes, and sputum conversion electronically through e-TB Manager. Additionally, the health managers will facilitate data export to other systems such as DHIS2.

SUB-OBJECTIVE 3.3: PHARMACEUTICAL SYSTEMS STRENGTHENING RESEARCH AND GLOBAL LEARNING AGENDA ADVANCED

Please refer to Cross Bureau Activity 2 for a full description of progress on this activity.

BEST PRACTICES/LESSONS LEARNED

- Strong leadership, political will, and effective resource mobilization can expedite the implementation of activities and innovations. Utilizing resources from entities such as the Global Fund can fast track initiatives, as demonstrated in the expansion of eLMIS implementation in the Philippines.
- Adopting an evidence-based and multisectoral approach provides a deeper understanding of the causes of failures in supply chain logistics. This approach allows for more comprehensive analysis and targeted solutions to address challenges in procurement processes as found in the Philippines during eLMIS implementation.
- Knowing and engaging the right stakeholders is crucial for better activity design and implementation, showcasing the importance of strategic partnerships in project implementation. This has been demonstrated in the eLMIS activity in the Philippines by including key role players such the Global Fund, Philippine Business for Social Progress, and Philippines DOH.

D. OBJECTIVE 4: PHARMACEUTICAL-SECTOR FINANCING, INCLUDING RESOURCE ALLOCATION AND USE, OPTIMIZED

- **Sub-Objective 4.1:** Financial barriers to access to medicines reduced
- **Sub-Objective 4.2:** Evidence-based medicines strategies and pharmacy benefits programs developed and implemented
- **Sub-Objective 4.3:** Efficacy of pharmaceutical resource allocation and use increased
- **Sub-Objective 4.4:** Mobilization of additional and sustainable resources increased

OVERVIEW

Ensuring the availability and appropriate allocation and use of financial resources is critical for enhancing access to essential medicines and strengthening health systems to achieve UHC. Poor allocation and suboptimal use of existing resources, coupled with high financial barriers, can reduce access to medical products and diagnostics within health systems. Putting sound financing strategies into effect minimizes the incidence of stockouts and reduces the inefficient use of resources. MTaPS' objectives include building country pharmaceutical financing systems by strengthening their ability to institutionalize transparent and evidence-based decision making, building capacity to use robust information to define and cost pharmaceutical benefits coverage, promoting PE tracking to improve purchasing value, and strengthening pharmaceutical-sector governance.

CUMULATIVE PERFORMANCE TO DATE

This section presents selected MTaPS financing activities to illustrate cumulative performance progress in this objective from the start of the project.

SUB-OBJECTIVE 4.1: FINANCIAL BARRIERS TO ACCESS TO MEDICINES REDUCED

To reduce patient-side financial barriers to accessing medicines, MTaPS works to improve procurement processes, allowing governments to access lower prices and improving regulatory systems to protect patients from high prices at the point of care. Through the **VAMOHS** program, MTaPS explored feasibility of the mechanism to rapidly facilitate access to medical products at higher aggregate volumes and lower unit costs for purchasers and patients in developing countries, particularly MICs.

In **Asia**, MTaPS developed a report on the landscape analysis of country-level pricing policies and available pricing databases for pharmaceuticals in Asian countries in 2021. MTaPS documented publicly available unit price information paid by the public and private sectors for different medicines and reviewed the use of pricing indexes to standardize pharmaceutical purchase prices and negotiation of the best values. MTaPS published a blog in November 2022 on pharmaceutical pricing policies.

In **Nepal**, MTaPS supported the development of an evidence-based policy on a price control mechanism for pharmaceutical products. MTaPS prepared a concept note to describe the current legal provisions, price ceilings, and the pricing of pharmaceutical products. The government's Cabinet Secretariat provided approval to replace the current 1978 Drug Act. MTaPS collaborated with the DDA to draft six regulations, including the pricing regulation, and three codes necessary for the implementation of the updated Drug and Health Product Bill.

In **Mozambique**, MTaPS supported the DNF/ANARME, IP in 2021 in developing two regulations and two guidelines to operationalize Law 12/2017. MTaPS drafted the Guidelines for GRP and the Reliance Guidelines and developed the Price Control Regulation and the Regulation on Distribution, Import, and Export of Medical Products. The Price Control Regulation will enable DNF/ANARME, IP to control product price markups of medicines as they move through the supply chain, thereby stimulating wider availability of and access to medicines and other health products.

In **DRC**, MTaPS successfully advocated to the government to grant health products “social product status” instead of “business product status,” which has lower or no tariffs and taxes, resulting in a significant cost and price reduction.

SUB-OBJECTIVE 4.2: EVIDENCE-BASED MEDICINES STRATEGIES AND PHARMACY BENEFITS PROGRAMS DEVELOPED AND IMPLEMENTED

Resource allocation decisions are central to pharmaceutical financing, as countries are working with limited resources. HTA is a systematic and multidisciplinary evaluation of health interventions (test, device, medicine, vaccine, procedure, program, or system) to inform decision making to promote an equitable, efficient, and high-quality health system. HTA helps countries identify health interventions to be included in—or removed from—the benefits package and EML for national health insurance programs. The more advanced use of HTA allows countries to negotiate prices and manage market access for new technologies.

Supported through the **Asia Bureau** and **Cross Bureau** portfolios, MTaPS conducted a systematic review of over 18,000 resources. MTaPS collaborated with 16 authors from 10 institutions to develop the HTA road map document for policy action in LMICs. In **Asia**, MTaPS wrote a report exploring the feasibility of an HTA hub or collaborative institution in the region, stemming from a survey and interviews of over 50 stakeholders in Asia. MTaPS also assessed the progression of HTA implementation in 9 countries in Asia, which was published in the *International Journal of Technology Assessment in Health Care* in July 2022. MTaPS also finalized the HTA Institutionalization Canvas, adapted from Osterwalder’s business model canvas.

In **Indonesia**, MTaPS has supported the MOH in redefining the criteria for selecting HTA topics and drafted the HTA Topic Selection Operational Manual. MTaPS successfully encouraged a wider range of stakeholders to submit topics, from 19 topics in 2022 to 46 HTA topics for 2023, and 131 HTA topics for 2024—increasing the breadth of lifesaving technology options to be evaluated for coverage to Indonesians. MTaPS also organized a capacity-building session with HTA researchers from the MOH and Universitas Gadjah Mada and conducted a hands-on activity on incorporating real-world data into a Markov model evaluating trastuzumab, a breast cancer medicine.

In **Ethiopia**, under Cross Bureau funding, MTaPS’ manuscript entitled “Institutionalizing Health Technology Assessment in Ethiopia: Seizing the Window of Opportunity” was published in the *International Journal of Technology Assessment in Health Care*. The manuscript details the HTA setup mechanism and a survey to assess skills needed to perform HTA. Preliminary results show that stakeholders in Ethiopia do not have enough information on HTA. MTaPS outlined options for setting up an HTA agency in the Ethiopian context.

In the **Philippines**, MTaPS finalized the HTA Methodology Guidelines for Clinical Equipment and Devices outline with the HTA Division and HTA Council. Once finalized and approved, the guide will be used to inform decision making in selecting efficient, equitable, and innovative medical devices. MTaPS also shared best practices and experiences from Nepal on the creation of Technical Specifications Banak which would facilitate the Philippines' developing its own essential medical devices list.

SUB-OBJECTIVE 4.3: EFFICACY OF PHARMACEUTICAL RESOURCE ALLOCATION AND USE INCREASED

Many pharmaceuticals are costly but essential to target the growing burden of NCDs and infectious diseases. Tracking PE will allow health administrators to learn from past patterns and improve planning and resource allocation, increasing efficiency and accountability. Beyond expenditures, costing exercises look at broader economic resource use, including the labor required to administer the pharmaceuticals, which in turn helps governments better allocate their finite resources.

In **Asia**, MTaPS works to strengthen country capacities for defining and costing evidence-based pharmaceutical benefit programs. MTaPS delivered two training programs on how to use the OHT to cost pharmaceutical benefits, with attendees from Kyrgyzstan, Bangladesh, Nepal, and the Philippines, further resulting in Bangladesh's interest to use OHT to cost the Shasthyo Surokhsha Karmasuchi Social Health Protection Scheme benefits package. MTaPS developed a report entitled "Pharmaceutical Benefits and Benefits Packages in Asia: A Cross Country Mapping of Coverage Arrangements," a brief on defining pharmaceutical benefits packages, and a two-part report reviewing costing tools and offering guidance for costing pharmaceutical benefit packages using the OHT.

In **Nepal**, MTaPS evaluated the cost of implementing the SPARS pilot program in 12 districts, which in 44% of the 286 pilot facilities led to significant improvements of pharmaceutical management and resource use.

In **Bangladesh**, MTaPS worked with the MOHFW and others to adopt the international standard to track PE, resulting in a consensus with the HEU on a methodology for tracking MNCH commodities and initiated activities for its implementation. MTaPS supported the PE tracking exercise, documented standard processes on PE tracking for MNCH, and disseminated the progress of the work with the HEU with the participation of WHO and Data International. MTaPS assisted the HEU to complete the PE tracking exercise and develop the standard processes on PE tracking and customization of PE tracking training modules for MNCH commodities following the SHA 2011 guideline and the country context.

In **Indonesia**, MTaPS conducted a systemwide landscaping of existing and potential PE data sources and produced a summary document. MTaPS also collaborated with the Indonesian health accounts team to compile existing PE data from available national sources and drafted a final report on the implementation of the 2022 PE tracking. MTaPS facilitated a meeting on future management of data for PE tracking, including data cleaning, validation, mapping, and analysis, as well as the need for a PE tracking team decree. MTaPS also facilitated the PE tracking training workshop, which resulted in the development of the 2023 PE tracking implementation plan.

To support **COVID-19 immunization costing**, MTaPS reviewed 530 articles across 3 databases and conducted 2 online surveys (November 2021 and May 2022) of health experts working in 21 countries to gather real-time COVID-19 vaccine delivery data. MTaPS rolled out a third global survey with a focus

on integrating COVID-19 vaccination into immunization programs and primary health care, as well as country efforts to target sub-populations for vaccination. These activities feed into the MTaPS-adapted Harvard/COVAX costing model to estimate the cost of delivering COVID-19 vaccines under various scenarios. In **Malawi**, MTaPS collected vaccine delivery expenditure data in 4 districts through surveys and interviews in the national offices and 20 facilities and analyzed the COVID-19 costing data. MTaPS disseminated findings of vaccine delivery costing in Malawi at the Immunization Economics Special Interest Group Pre-Congress Session of the International Health Economics Association (IHEA) congress in Cape Town.

SUB-OBJECTIVE 4.4: MOBILIZATION OF ADDITIONAL AND SUSTAINABLE RESOURCES INCREASED

In addition to an improved understanding of current expenditures, costing data, and efficient allocation of resources, MTaPS also supports efforts to increase the efficiency of procurement through strategic purchasing; identifying additional financial sources, including public-private partnerships; and identifying and supporting applications for additional external funding.

In **Bangladesh** in Year 2, MTaPS assisted the NTP in preparing concept notes for funding through the Global Fund to Fight AIDS, TB, and malaria for 2020–2023.

In the **Philippines**, MTaPS supported identifying and allocating resources for PSCM through the national strategic plan implementation. MTaPS is advocating for leveraging private-sector capacity to outsource certain components of the PSCM, which is already part of the strategy for increasing PSCM efficiency in the national strategic plan. MTaPS also supported the DOH in developing guidelines for framework agreements to ensure that quality health commodities are procured efficiently. MTaPS facilitated a learning session on quantification of health commodities and on quantification systems, processes, and tools. The estimated quantities and budgets will be used for the DOH's application for multi-year contractual authority for FP and TB commodity procurement. This allows flexibility in the quantity of commodities, reducing the possibility of overstock or stockout.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

SUB-OBJECTIVE 4.1: FINANCIAL BARRIERS TO ACCESS TO MEDICINES REDUCED

In **Nepal**, MTaPS and the DDA held two meetings with key stakeholders, including the Nepal Law Commission, the MOHP, the Ministry of Law Justice and Parliamentary Affairs, and USAID Nepal, to advance the process of presenting the updated Drug and Health Product Bill, which includes pricing regulations, to parliament.

SUB-OBJECTIVE 4.2: EVIDENCE-BASED MEDICINES STRATEGIES AND PHARMACY BENEFITS PROGRAMS DEVELOPED AND IMPLEMENTED

MTaPS proposed an organized session at the upcoming HTAi conference highlighting the work establishing and strengthening priority setting and resource allocation in Ethiopia, Indonesia, and the Philippines. After a rigorous evaluation, HTAi accepted the proposed organized session, entitled “Advancing Health Technology Assessment (HTA) Worldwide: Insights from Global Initiatives.”

In **Asia**, MTaPS continues working with potential partners in the region to support HTAsiaLink to develop and serve as an HTA hub in the Asia region through an integrated regional strategy for building HTA capacity, improving the political economy for HTA, gaining buy-in from key policymakers, and providing targeted support to regional priorities.

In **Indonesia**, MTaPS' end-of project event highlighted MTaPS accomplishments on HTA, which included improving stakeholder engagement that resulted in a submission increase from 19 topics in 2022 to 131 HTA topics for 2024. This increased the breadth of lifesaving technology options to be evaluated for coverage to Indonesians. The event also highlighted MTaPS' collaboration on strengthening the MOH and local universities' capacity on conducting HTA, and MTaPS awards received at HTAsiaLink international conference for 2 consecutive years: on topic selection (2022, Pattaya, Thailand), and stakeholder engagement (2023, Malaysia).



MTaPS and USAID Philippines Mission staff receiving certificates of appreciation for supporting the development of the country's first specialized methods guide on HTA for medical devices, Manila, November 2023. Photo credit: MTaPS Philippines

In the **Philippines**, the MTaPS-supported HTA Method Guide for Clinical Equipment and Devices (CEDs) was finalized and shared with local stakeholders in a three-day workshop in Manila. This is the first specialized HTA methods guide in the country, supporting the Government of Philippines in allocating resources to expand access to lifesaving medical devices for its citizens.

SUB-OBJECTIVE 4.3: EFFICACY OF PHARMACEUTICAL RESOURCE ALLOCATION AND USE INCREASED

In **Asia**, MTaPS reviewed training materials and developed SOW for PE tracking training in Bangladesh. MTaPS developed a concept note on PE in Indonesia, Bangladesh, and Burkina Faso—to be developed as a peer-reviewed journal manuscript.

In **Nepal**, MTaPS drafted a manuscript evaluating the cost of implementing the SPARS pilot program in 12 districts; the program contributed to significant improvements in pharmaceutical management and

resource use in 44% of the 286 pilot facilities. The draft manuscript received positive feedback from USAID experts and government counterparts.

In supporting the COVID-19 global activity, MTaPS disseminated findings of vaccine delivery costing in **Malawi** with the Ministry of Health and USAID Malawi mission. MTaPS began drafting a peer-reviewed journal manuscript documenting the findings of the costing exercise. MTaPS also drafted a journal manuscript focusing on the third global survey, aimed at integrating COVID-19 vaccination into immunization programs and primary health care.

In **Bangladesh**, with continued MTaPS advocacy, the HEU managed to include the PE tracking budgetary provision in the government's next Health Sector Program Operational Plan. It is an important milestone toward institutionalization of PE tracking to the HEU.

SUB-OBJECTIVE 4.4: MOBILIZATION OF ADDITIONAL AND SUSTAINABLE RESOURCES INCREASED

No further activities planned for PY6.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

E. OBJECTIVE 5: PHARMACEUTICAL SERVICES, INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE TO ACHIEVE DESIRED HEALTH OUTCOMES, IMPROVED

OVERVIEW

Ensuring the availability and appropriate use of safe, effective, quality-assured, and affordable medicines and health technologies is critical for effective health outcomes. It requires integration with other objectives, including reliable data for decisions (Objective 3), addressing finances and the evidence-based selection of medicines and health technologies (Objective 4), stewardship to allocate resources efficiently (Objective 1), and institutionalizing best practices to improve pharmaceutical care (Objective 2) and patient safety.

CUMULATIVE PERFORMANCE TO DATE

SUB-OBJECTIVE 5.1: AVAILABILITY OF ESSENTIAL MEDICINES AND OTHER HEALTH TECHNOLOGIES IMPROVED

Bangladesh: MTaPS supported the development of a long-term procurement strategic plan. MTaPS developed the TOE for HFs and updated reference prices for the equipment list. The program also updated the full specifications of the MSR list and assisted the MSR List Updating Committee to develop a strategy to regularly assign and review standard reference prices to the list. With TA from MTaPS, the MOHFW and the DGHS's procurement oversight bodies have started implementing a system to monitor procurement performance using standard KPIs to improve procurement practices. MTaPS has been supporting the DGFP in using data generated through the MTaPS-developed eLMIS for decision making to ensure uninterrupted availability of FP commodities, maintaining a stock-out rate below 1% at SDPs (September 2018–September 2023) and saving financial resources. MTaPS completed scale-up of the eAMS in all 61 DHs countrywide, and the system has been in use in all DHs, allowing real-time assets tracking and making information easily available for rational procurement and timely maintenance. The MIS unit of the DGHS has initiated implementation of the eAMS at sub-district level hospitals using government funds. MTaPS aided the NTP in formulating a transition plan, offering various options for storage integration after evaluating the peripheral storage system for TB medicines. The NTP has successfully integrated 478 of 484 peripheral stores that were previously managed by implementing partners and situated outside upazila health complexes (UHCs). MTaPS also supported a capacity assessment of procuring entities, developed key recommendations, and submitted the final draft of the procurement handbook to strengthen the procurement capacity of the DGHS. In PY5, MTaPS focused on developing transition plans with government stakeholders. The overarching aim was to ensure the sustainability of the strengthened systems.

Jordan: MTaPS successfully assisted the JFDA and MOH in achieving procurement reforms to facilitate supplier market entry and product availability. Following the reforms, the GPD, with support from MTaPS, developed FA, implemented guidelines, trained public-sector procurement personnel, and developed procurement negotiation guidelines. To improve procurement and supply chain practices, MTaPS assisted the MOH's PSD to complete a comprehensive assessment of the pharmaceutical supply chain, the findings and recommendations of which were used in the development of the PSD's

Operational Plan 2023–2025 and priority SCM policies. MTaPS supported the PSD to develop six priority procurement and supply management policies, which were granted official approval from the MOH; the development and submission of the final versions of FA SOPs; and the procurement negotiation SOPs for final approval and dissemination.

Philippines: MTaPS supported the DOH in developing a three-year supply chain strategy, facilitated the inclusion of articles into UHC regulation to ensure policy support for supply chain reforms, and developed a supply chain road map for UHC law implementation. In addition, MTaPS supported the long-term estimations for TB, HIV, and FP commodities to facilitate budgeting and procurements. MTaPS also provided TA in the development of quantification guidelines and conducted a series of quantification training sessions for the DOH, CHDs, LGUs, and hospitals. With MTaPS' support, the DOH independently processed and analyzed stock data of tracer products and oriented staff from selected regions on the same. The DOH has included TLD and PrEP in the National Formulary and has updated the warehouse operation manual. MTaPS supported the DOH to complete the multiyear quantification of HIV, FP, and TB commodities, the results of which are used for fund management and procurement. MTaPS supported the DOH to design an inventory control system that has determined the flow of commodities and established optimal inventory levels throughout the supply chain. In addition, MTaPS analyzed the country's CYP for the public and private sectors and provided analysis and recommendations to decision makers.

SUB-OBJECTIVE 5.2: PATIENT-CENTERED PHARMACRUTICAL CARE IMPROVED

Nepal: MTaPS worked with the DDA to conduct a baseline assessment that informed the development of guidelines and tools, an e-Learning course, and IEC materials for GPP and GDSP. A GHPP situational analysis led to the formation of a TWG to revise hospital pharmacy guidelines, and a capacity-strengthening program for public-sector hospital pharmacists was initiated to improve GHPP.

Rwanda: To improve pharmaceutical services, MTaPS collaborated with the MOH, Rwanda FDA, and NPC to develop pharmaceutical service accreditation standards and a plan for their implementation. Subsequently approved by the MOH and aided by MTaPS, these standards were disseminated with medicine safety information to 440 health care providers (145 female).

SUB-OBJECTIVE 5.3: PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS ENSURED

Bangladesh: MTaPS has strengthened the PV system of the DGDA by implementing PVIMS in hospitals and MAHs; scaling up PV to more than 30 government and private HFs by providing training and creating PV units to institutionalize PV-related initiatives; developing and implementing risk management and investigation procedures to identify, analyze, and mitigate medicines safety risks; and supporting periodic evaluation of ADE safety data and submitting data to the WHO Uppsala Monitoring Center. MTaPS supported the DGDA in achieving the highest GBT score for PV among the implemented institutional development plan.

Jordan: MTaPS supported the MOH to establish and implement a targeted spontaneous reporting system on the safety of COVID-19 vaccines. MTaPS supported systematic sample randomization of vaccinated individuals, standardization of the information collection processes, and analyses of multiple data sets from the COVID-19 vaccines AEFI surveillance system. It also generated and submitted

comprehensive reports and key messages to be approved and disseminated by the MOH's national PV center as health communication messages to encourage vaccine uptake.

Mozambique: MTaPS supported ANARME, IP in the institutionalization of PV and the utilization of PViMS for both active and passive surveillance. This included active surveillance of TLD and TPT; training ANARME, IP personnel to act as trainers on the protocol and SOPs; supporting the ANARME, IP in the analysis of active surveillance data, including causality assessment and report writing; training of provincial and district focal persons, who cascaded similar training to facility HCWs at the TLD and TPT sites; enrolling study participants; and conducting of follow-up visits, including support supervision to the sites.

Nepal: MTaPS supported the DDA with a situational analysis of the PV system in the country. Based on the findings of this analysis and on WHO's best PV practices and GBT assessment, PV regulations, guidelines, risk management plans, and SOPs for regulation and reporting were developed. MTaPS supported the DDA to establish a PV and drug information working group that helped the DDA become a member of the International Society of Pharmacovigilance. MTaPS also supported capacity strengthening for the DDA through training on signal detection, analysis, and risk management in PV.

Philippines: MTaPS supported the implementation of PViMS for active surveillance for TB medicines in all 199 TB facilities and the causality assessment of the AE reports submitted through PViMS and enhanced PViMS to ensure interoperability with WHO VigiFlow. To date, 597 AEs have been reported through PViMS and causality assessments have been conducted for decision making. MTaPS finalized and shared two versions of the PV e-Learning course with the FDA: Principles and Concepts of Pharmacovigilance and Reporting in Pharmacovigilance.

Rwanda: MTaPS supported the Rwanda FDA in institutionalizing PV through development of a PV national plan; capacity strengthening of FDA personnel and national pharmacovigilance advisory committee and AEFI committee members; creating PV awareness through IEC materials; adapting PViMS for spontaneous and active reporting of AEs, including AEFI for Ebola and COVID-19 vaccines; conducting active surveillance of DTG-based ARV regimens and causality evaluation of safety reports; developing a costed multiyear national PV plan; and ensuring interoperability of PViMS with VigiFlow.

Tanzania: MTaPS supported the revision of the TOR for the National PV Safety Advisory Committee; developed safety monitoring guidelines for the pediatric population; and trained Vigilance Technical Committee members on medicines, vaccines, medical devices, and diagnostics, which has helped the assessment of AEs associated with ARVs and other medicines. MTaPS built the capacity of TMDA staff on the assessment of PSURs and risk management plans for ARVs and other medicinal products through practice-based training.

IGAD: MTaPS provided TA to the IGAD Secretariat to operationalize the IGAD EWG-PV by supporting the review and validation of the TOR; developing a harmonized plan of activities; convening quarterly meetings (including for the EAC); drafting a harmonized PV training curriculum, training package, and costed work plan; training regional PV experts and cross border HFs; conducting a baseline assessment of PV systems; and supporting NMRAs, specifically the PPB of Kenya, to analyze data for decision making through capacity strengthening of the PERAC. MTaPS, in collaboration with the EAC Secretariat and

EAC states, developed and validated harmonized SOPs for the implementation of the EAC PV compendium.

SUB-OBJECTIVE 5.4: ANTIMICROBIAL RESISTANCE CONTAINMENT SUPPORTED

Jordan: MTaPS helped operationalize the NAP-AMR (2018–2022), conduct an AMR/AMS stakeholder analysis, and implement AMS programs in two pilot HFs. MTaPS also supported the development of a national policy to combat multidrug-resistant organisms and launch a certified IPC training course. MTaPS-led CASS initiatives were integrated into the NAP-AMR to raise AMR awareness. Additionally, protocols, audit tools, and KPIs were developed for the rational use of antibiotics in ICU infections, surgical procedures, and UTIs. MTaPS supported the PCPD to take the lead in initiating national IPC assessments in dental settings.

Philippines: MTaPS aided the DOH in finalizing and disseminating an HF IPC checklist tool and TOT materials for IPC and HCWM guidelines and supported IPC assessments in 30 HIV facilities and training on using the materials developed.

Rwanda: Following the first NAP-AMR (2020–2024), MTaPS collaborated with the MOH, Rwanda FDA, and stakeholders to develop a multisectoral communication strategy for AMR. MTaPS Rwanda also helped integrate the AWaRe categorization of antibiotics into the NEML and develop an MTC manual and accompanying training guide and job aids.

Nepal: To map the Government of Nepal’s previous and ongoing AMR-related activities, the MOHP, One Health partners, and MTaPS Nepal conducted an AMR landscape analysis that helped inform the development of an AMR training curriculum for journalists and IEC materials on AMR containment.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

SUB-OBJECTIVE 5.1: AVAILABILITY OF ESSENTIAL MEDICINES AND OTHER HEALTH TECHNOLOGIES IMPROVED

Bangladesh: MTaPS focused on assisting government counterparts to implement transition plans that were jointly developed in PY5. MTaPS facilitated a consultative meeting in which representatives from the CMSD and MIS unit of the DGHS decided to expand the DGHS eLMIS to HFs in four districts, based on the positive review of the eLMIS implementation at the CMSD. In addition, a consultative meeting among the Logistics and Supply unit and other relevant units of the DGFP identified the logistics-related information needed to be captured in the system for piloting the use of the DGFP eLMIS at seven maternal and child welfare centers. The pilot and the DGFP’s plan to eventually roll it out to the remaining districts was approved by the Director General of DGFP. This quarter, one maintenance ticket was raised by the DHs and has yet to be resolved. Among sub-district-level hospitals, 98% (421 out of 429) have started entering assets into the eAMS, and information on 4,656 assets has been entered. The National Institute of Cancer Research & Hospital (NICR&H) was selected as the tertiary-level hospital to roll out the eAMS as a pilot by the Hospital Services Management (HSM) of the DGHS. A joint visit by HSM and MTaPS was conducted to the NICR&H to formally introduce the eAMS to the management (Director, Deputy Director, and Assistant Directors). An NTP-led quarterly quantification exercise with the use of the QuanTB was successfully conducted for TB medicines, and

the NTP developed a comprehensive report. MTaPS assisted the NTP to form a sub-group on quantification and EWS with TOR. MTaPS supported procurement entities under the MOHFW and DGHS to review procurement documents and to use the annual procurement plan. All procurement entities under the DGHS submitted their annual procurement plans on time this quarter.

Jordan: MTaPS facilitated a series of technical workshops involving key stakeholders from the GPD, including the subcontracted IT company responsible for enhancing and expanding the existing Jordan Online E-Procurement System (JONEPS). Workshop participants identified procedures within the FA SOPs that could be automated. MTaPS has developed a preliminary draft of the FA procedures workflows based on the workshop results. These workflows will serve as blueprints for the subsequent stages of integrating the FA SOPs into JONEPS, which will contribute to institutionalizing and sustaining the implementation of the FA SOPs by the GPD. In addition, MTaPS completed the recruitment of the legal and procurement consultants to support the GPD in drafting the policy for evaluating suppliers' performance and developing standard bidding documents, which will be followed by a thorough review and validation process with stakeholders.



GPF participants in Jordan engage in review of the initial draft of workflows during the FA Procedures on Automation workshop, October 25, 2023, Amman, Jordan. Photo credit: MTaPS

Philippines: MTaPS coordinated with ReachHealth and the MyCure system provider, Team O.P.S., to pilot test the MyCure system to digitally integrate the care provider networks in Batangas and Laguna through the PIES initiative. The system has been deployed in 13 facilities in Batangas and Laguna, but none of the sites are utilizing it. Challenges in adoption included lack of hardware and technical support. MTaPS and ReachHealth are working to resolve the challenges.

SUB-OBJECTIVE 5.2: PATIENT-CENTERED PHARMACEUTICAL CARE IMPROVED

Nepal: MTaPS supported the printing and dissemination of manuals and training guides for GPP and GSDP. MTaPS also helped DDA inspectors inspect pharmacies and wholesalers using the new GPP and GSDP guidelines and the electronic inspection tools developed with MTaPS' support. MTaPS supported

the Curative Service Division to train 64 hospital pharmacists (8 female) from two provinces in hospital pharmacy management; in addition, MTaPS supported TWG engagements with the MOHP to finalize the updated hospital pharmacy directive and the new GHPP guidelines.

SUB-OBJECTIVE 5.3: PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS ASSURED

Bangladesh: MTaPS continued to support the implementation of PViMS with 84 AE reports submitted this quarter. MTaPS also conducted a TOT on PViMS for 27 MAHs, 1 hospital, and DGDA staff.

Mozambique: ANARME, IP, in coordination with MTaPS, conducted the last round of site visits to the five study sites to close out the active monitoring on 3HP for TPT, complete data collection and data quality checks to verify completeness of information on the forms, and collect the study materials. MTaPS continued to provide guidance to the ANARME, IP and HIV team to manage the data on PViMS, including data cleaning, periodic review, analysis of the collected data, and undertaking causality assessment process using PViMS.

Nepal: Approved PV IEC materials were printed by MTaPS in Nepali and distributed to HFs. Displaying PV IEC materials at HFs is intended to create public awareness, which plays a crucial role in ensuring the safe and effective use of medicines by monitoring, detecting, managing, and preventing ADEs.

Rwanda: MTaPS collaborated with the Rwanda FDA to revise the draft communication strategy for AE awareness and other regulatory functions. The revised strategy includes an implementation plan and recommendations to address various GBT vigilance indicators and sub-indicators identified during a recent assessment. These indicators include ensuring documented procedures for stakeholder involvement and coordination (VL02.02), appropriately communicating vigilance activities to the public (VL06.01), establishing mechanisms for regular feedback and risk communication (VL06.02), and sharing vigilance data with relevant regional and international partners (VL06.03).

SUB-OBJECTIVE 5.4: ANTIMICROBIAL RESISTANCE CONTAINMENT SUPPORTED

Nepal: MTaPS supported two AMR sensitization workshops for 57 media personnel (10 female); the program later assessed the impact of the workshops on 38 media personnel (19 female). MTaPS also participated in a rally organized by the MOHP and One Health stakeholders as part of the 2023 WAAW and took a lead in preparing and distributing AMR containment awareness placards during the rally. With MTaPS' support, the MOHP advocated for endorsement of the NAP-AMR (2023–2028) in a presentation to Parliament.

Jordan: MTaPS supported the MOH to lead an orientation workshop on antibiotic prophylaxis/treatment priority protocols for 52 physicians, nurses, and pharmacists (24 female) from two pilot HFs. In addition, MTaPS helped the RMS AMS committee begin implementing the treatment protocols for 27 priority ICU infections, which were previously developed with MTaPS' support. To strengthen IPC, MTaPS collaborated with the Health Care Accreditation Council and the MOH Infection Prevention and Control Directorate to train 28 IPC focal points (17 female) from several MOH hospitals across Jordan using the Healthcare Infection Preventionist course. Additionally, MTaPS supported the IPC Directorate to customize a tool to assess IPC in dental settings and recruited a technical subcontractor to coordinate the assessment. MTaPS also worked with the Health

Communication and Awareness Directorate to review, revise, and finalize AMR awareness messages previously developed with MTaPS' support. Lastly, the MOH SHD integrated the MTaPS-led AMR CASS into its annual action plan, thereby recognizing AMR awareness sessions for students as a new foundational strategy for capacity strengthening.

BEST PRACTICES/LESSONS LEARNED

- Identifying and involving the appropriate stakeholders opens avenues for enhanced design and implementation of project activities. As an illustration, the collaboration between MTaPS and the Philippine Pharmacist Foundation within the LTAPs framework is contemplating the creation of a new certification course for pharmacists.

3. PROGRESS BY HEALTH AREA/FUNDING STREAM

A. GLOBAL HEALTH SECURITY AGENDA/ANTIMICROBIAL RESISTANCE (GHSA/AMR)

OVERVIEW

Until recently, MTaPS was providing AMR-related GHSA support to 13 partner countries; however, Mozambique and Uganda GHSA activities closed in September 2023, and therefore, the report for this quarter includes progress from only 11 countries (Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, DRC, Ethiopia, Kenya, Mali, Nigeria, Senegal, and Tanzania). MTaPS' GHSA approach is to help countries enhance their ability to effectively implement NAPs-AMR and reach higher IHR capacity levels as measured by JEE scores in the three mandated areas of MSC-AMR, IPC, and AMS.

CUMULATIVE PERFORMANCE TO DATE

As of September 2023, with the support of MTaPS, 13 countries have made significant progress toward achieving sustainable capacity in line with the WHO IHR benchmarks (2019). Specifically, an average of 52% of benchmark actions (405 out of 785 targeted benchmark actions of all collaborating countries) have been partially or fully supported, showcasing substantial strengthening of health care systems and emergency preparedness.

EFFECTIVE MSC-AMR: EXAMPLES FROM TWO COUNTRIES

MTaPS has helped improve **Kenya's** JEE scores by fully or partially supporting completion of 50% (2/4) of capacity level 2 actions; 50% (2/4) of capacity level 3 actions; 100% (4/4) of capacity level 4 actions; and 60% (3/5) of capacity level 5 actions in MSC as of September 2023. MTaPS supported MSC activities at the national level and in 4 focus counties. For example, to enhance scale-up and sustainability of MSC, MTaPS' support strengthened MSC structures at not only the national (NASIC) but also at the county (CASIC) levels to decentralize MSC. MTaPS supported the finalization and dissemination of a standardized AMR communiqué and CASIC orientation package and bulletins to One Health stakeholders. MTaPS also supported the review of the NAP-AMR (2017–2022) to assess the planned activities' level of completion and the subsequent iteration of the NAP-AMR (2023–2027) and its M&E indicators, costing, and launch. This new NAP contains locally tailored actions beyond the GAP, which demonstrates ownership and the capacity needed to localize and sustain AMR containment.

In **DRC**, as of September 2023, MTaPS had fully or partially supported 75% (3/4) of capacity level 2 actions, 100% (4/4) of capacity level 3 actions, 75% (3/4) of capacity level 4 actions, and 40% (2/5) of capacity level 5 WHO benchmark actions for MSC. Although not yet made official, MTaPS helped **DRC** to establish the NC-AMR, which coordinated the implementation and update of the country's NAP. MTaPS also supported the NC-AMR in establishing three thematic TWGs for IPC, the rational use of antimicrobials, and AMR detection and surveillance. MTaPS consistently supported the NC-AMR and its TWGs to carry out NAP activities and make progress in the MSC, AMS, and IPC technical areas. MTaPS' support empowered the NC-AMR to spearhead the annual Tripartite Country Self-Assessment Surveys

(TrACSS). Through MTaPS support, the country now has functional committees that can comfortably lead and coordinate AMR containment efforts utilizing a One Health approach in conjunction with the national One Health platform. This is a promising sign of ownership and sustainability of AMR containment in the country.

IPC IMPROVED AND FUNCTIONAL

In **Nigeria**, as of September 2023, MTaPS had contributed to increasing the country's JEE scores for IPC at the last assessment by supporting the country fully or partially to accomplish 3 of the 5 benchmark actions (60%) in level 2, all (100%) of the 6 actions in level 3, and 4 (80%) actions in level 4. With MTaPS' technical assistance to the national AMR TWG secretariat, a national IPC strategic plan, viral hemorrhagic fever manual, local data on HCAI, and a national protocol for bloodstream infection surveillance are now publicly available and are enhancing HCAI surveillance and IPC in the country. With MTaPS' support, 7 private and public HFs in Enugu and Kebbi States appropriately implemented most aspects of the IPC core components, because they all progressed from "inadequate" IPC capacity at their baseline assessments in FY22 using the WHO IPCAF to "intermediate" on reassessment in FY23. To prepare the health care workforce to sustain their IPC advances, MTaPS' technical assistance strengthened local competencies of HCWs through in-person, competence-based, and cascaded training; mentorship; and monitoring and audits of IPC practices and providing feedback to enhance technical capacity to initiate IPC compliance assessments and corrective action. The state MOHs and facility management are using these competences to perpetuate IPC improvements.

In **Tanzania**, as of September 2023, MTaPS had fully or partially supported 80% (4/5) of capacity level 2, 100% (6/6) of capacity level 3, 100% (5/5) of capacity level 4, and 100% (5/5) of capacity level 5 WHO benchmark actions for IPC. With MTaPS' technical assistance to the MOH, updated IPC guidelines and a training curriculum and e-Learning course on IPC are accessible to all HCWs in Tanzania and to the public, thereby institutionalizing IPC and AMR containment. Additionally, the country now regularly reports on IPC indicators through DHIS2 and has put in place a functional system for HCAI surveillance in HFs. Integrating these achievements into the health system contributed to the country's developed capacity scores in IPC in the last JEE and laid the groundwork for ownership and sustainability that will lead to further progress.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED: EXAMPLES FROM TWO COUNTRIES

MTaPS' support to **Ethiopia** had contributed to its improved AMS capacity through the completion of 100% (4/4) of capacity level 2, 67% (4/6) of level 3, and 29% (2/7) each of level 4 and level 5 benchmark actions as of September 2023. Even though Ethiopia showed no progress in AMS in the last JEE, MTaPS' support contributed to the country's holding steady at limited capacity using the more stringent JEE framework. Institutionalizing AMS in the country included an updated NEML, a practical guide on AMS, and national STGs that incorporate the WHO AWaRe categorization of antibiotics, made available with MTaPS support; HCWs and other stakeholders are using them as part of their routine AMS practices and operation. Five hospitals demonstrated improvement in antibiotic use for surgical prophylaxis, thereby providing an opportunity for other HFs in the country to benchmark on AMS best practices. Ethiopia's HCWs have access to e-Learning modules on AMS, which provides a knowledge base for sustained AMS implementation. Additionally, HFs regularly report on AMS and IPC indicators in DHIS2,

further institutionalizing AMS and IPC implementation. These efforts laid a strong foundation for the country's ownership and sustainability of AMS capacity strengthening and beyond.

To strengthen governance for AMS in **Senegal**, MTaPS support has enabled the country to complete 75% (3/4) of level 2 actions and 50% (3/6) of level 3 actions as of September 2023. Through MTaPS' technical assistance to the National Committee for Antibiotic Treatment and its TWGs, the country is implementing an updated national antibiotic policy and STGs that incorporate AWARe categorization and establish appropriate antibiotic use in HFs and communities. Additionally, MTaPS helped transfer AMS capacity to select HCWs at the national and HF levels to create a pool of trainers and mentors who are available to cascade training on AMS. These achievements contributed to the country's moving from no capacity to limited capacity in the last JEE assessment. The National Committee for Antibiotic Treatment and the One Health platform adopted the STGs as a tool to reorganize AMS at all levels in the country.

QUARTER I/YEAR 6 ACHIEVEMENTS AND RESULTS

GLOBAL THOUGHT LEADERSHIP

During the reporting quarter, MTaPS published three peer-reviewed journal articles sharing experiences, lessons learned, and expert opinions on topics related to the use of antibiotics for surgical prophylaxis, national antimicrobial consumption surveillance, and strengthening AMR awareness in the public. Furthermore, MTaPS published four technical briefs and one end-of-project report highlighting best practices and experiences on IPC, AMS, and MSC-AMR. The Uganda team presented a poster at the 3rd International Conference on Public Health in Africa in November 2023 to share MTaPS' work related to AMS. As well, Mali's GCMN-RAM presented achievements made with MTaPS support along with key experiences and lessons learned at the 6th Conference of the African Epidemiology Association and the 1st Congress of the Malian Society of Epidemiology. Lastly, the MTaPS GHSA program in Ethiopia ended in December 2023, with end-of-project presentations made to the USAID Mission and Washington.

RAISING AWARENESS AND STRENGTHENING EFFECTIVE MSC-AMR

Celebrating WAAW: MTaPS supported various WAAW 2023 celebrations in **Senegal, DRC, Côte d'Ivoire, Bangladesh, Kenya, Tanzania, Mali, and Ethiopia**. In **Kenya**, the new NAP-AMR (2023–2027) and its M&E framework, both technically and financially supported by MTaPS, were launched during WAAW. In **Senegal**, MTaPS supported a 3-day science fair at the University of Saint-Louis to increase AMR awareness, and it subsequently supported the Saint-Louis Regional One Health Platform to draft TORs establishing the AMR Regional TWG in Saint-Louis. In **Tanzania**, MTaPS supported a 2-day multisectoral AMR symposium and delivered a presentation on enhancing IPC training through e-Learning. During the symposium, the MOH awarded MTaPS a certificate recognizing the excellent support to the country's NAP-AMR implementation. MTaPS **Mali** collaborated with the One Health platform, GCMN-RAM, and other partners to organize a televised opening ceremony for the WAAW with 120 people (33 female) attending in-person. In **Ethiopia**, MTaPS supported a number of activities: training mass media professionals; sending mass SMS (short message service) messages to the public; posting and disseminating AMR messages on social media; providing AMR sensitization training at selected high schools; drafting a press release; organizing a panel discussion; launching AMR documents, including an IPC reference manual, AMS practical guide, and two e-Learning courses; visiting the

Ethiopian Agriculture Authority's quality control laboratory; and providing virtual CME sessions. **DRC**, **Côte d'Ivoire**, and **Bangladesh** organized conferences targeting both pre-service and in-service professionals involved in the fight against AMR. MTaPS Bangladesh also helped the country celebrate International One Health Day 2023 in November.



Community sensitization on AMR conducted during WAAW with MTaPS support under the aegis of the One Health Secretariat, Saint-Louis, Senegal. Photo credit: USAID Breakthrough ACTION

Strengthening MSC governance structures and functions: In **Ethiopia**, MTaPS helped organize multisectoral committees with TORs, which contributed significantly to the improved recent JEE outcomes in MSC, IPC, and AMS. The notable advancement in MSC (demonstrated capacity level 4) signals that the country is taking full ownership of multisectoral organization of AMR containment. MTaPS **Kenya** team supported CASICs to review progress of their work plans. These decentralized committees are now able to draft, implement, and revise AMR containment plans, which are key elements of ownership and sustainability of AMR containment efforts.

Important activities achieved through MSC meetings: MTaPS provided logistics support to the One Health Secretariat in **Bangladesh** to prioritize and finalize actions on the AMS plan and draft a national IPC plan. In **Senegal**, the AMR TWG established a committee to finalize the new NAP-AMR, and MTaPS collaborated with other GHSA partners to support its meetings. In **Tanzania**, MTaPS supported M&E, AMS, and IPC TWG meetings to draft the M&E framework for the NAP-AMR (2023–2028) and to address gaps from the recent JEE 3.0 assessment. At the invitation of the FAO, MTaPS **DRC** provided technical support to the government during the country's recent JEE conducted in October 2023 and supported the National Pharmaceutical Regulatory Authority (ACOREP) and the NC-AMR to organize their quarterly MSC meeting. MTaPS worked with the **Côte d'Ivoire** AMR TWG to organize a workshop to revise the governance manual for AMR containment. MTaPS also helped the IPC MTC (MTC4) to hold an orientation workshop for MTC4 members on JEE 3.0 indicators and later supported a repeat JEE assessment using JEE 3.0. MTaPS collaborated with the One Health Platform Technical

Secretariat in **Burkina Faso** to organize the AMR-TTC semiannual meeting, which covered key achievements for 2021–2023 and plans for 2024 activities. These activities indicate committees' readiness to lead AMR containment working with implementing partners.

Drafting or updating multisectoral policies, plans, or guidelines: In **Nigeria**, MTaPS supported the development of priority activities for the six thematic areas of the next NAP-AMR, including governance, awareness, stewardship, surveillance, research, and IPC. The monitoring framework and activity costing for the new plan were finalized with MTaPS' support. Nigeria has now built local human resources (HR) capacity to draft operational documents that are key in lobbying for and implementing AMR containment activities. MTaPS supported the review and finalization of **Kenya's** national IPC and HCAI surveillance guidelines, which were launched during the WAAW in November 2023. These guidelines will continue to guide country counterparts to conduct IPC and HCAI surveillance in the country.

IPC IMPROVED AND FUNCTIONAL

Strengthening facility IPC governance structures and functions: MTaPS **Senegal** worked with the DQSHH to conduct national IPC supervision in 5 regions. The HF ICCs will update their respective improvement action plans based on the results of the supervision visits. These visits also helped to institutionalize HF self-assessments, thereby localizing IPC monitoring and improvement planning as MTaPS exists. These HF ICCs now have the capacity to draft, implement, and monitor action plans that other facilities in the country can use as benchmarks. In addition, with MTaPS' technical assistance, a HCAI surveillance system was established at the *Hôpital Général Idrissa Pouye* (HOGIP), beginning with data collection on HCAI in surgical wards. In **Kenya**, MTaPS supported IPC end-term assessments in 16 HFs to measure progress—preliminary findings showed that all 16 HFs were using standardized tools for monitoring IPC and had cumulatively implemented 49% of planned CQI activities. MTaPS supported the DGSHH in **Mali** to organize a virtual meeting for MTaPS-supported HFs to monitor IPC practices. This activity created a community of practice that can be expanded to other HFs, and with the use of a virtual platform, MTaPS created an easy yet effective way for these facilities to learn from each other. In **Côte d'Ivoire**, MTaPS assisted its 20 supported HFs to carry out self-assessments using the WHO IPC assessment framework—minimum requirements (IPCAF-MR) tool, with 5 HFs scoring over 70% and 5 HFs scoring under 50%.

Developing individual and local training capacities: To enhance capacity of IPC trainers in **Tanzania**, MTaPS collaborated with the MOH and the University of Dar es Salaam to conduct a TOT for 23 participants (10 female) on the IPC M&E system. The trainers will train HCWs; supervise and monitor IPC activities in the HF; and help conduct IPC data management, monitoring, evaluation, and reporting through DHIS2. The trained experts were then supported to cascade this capacity to 61 (32 female) other HCWs in Dodoma. They can continuously be relied on to sustain HR capacity building in the country. In **Ethiopia**, an integrated IPC-AMS training was provided with MTaPS' support for 25 (13 female) health professionals at Tirunesh Beijing Hospital, who also drafted the hospital's annual IPC action plan. MTaPS **Côte d'Ivoire** supported the Directorate of Pharmaceutical Activities to finalize and upload the IPC and AMS modules onto its e-Learning platform, thereby creating a state-owned platform to continuously support the country's HR capacity building. MTaPS **Bangladesh** facilitated the upload of the e-Learning course on IPC standards guidelines, translated into Bangla, onto the Muktopaath platform

for access by HCWs. As of December 31, 2023, 632 (198 female, 432 male, 2 other) participants successfully completed the course.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Developing and implementing AMS policies, plans, and guidance documents, including AWARe classification: The MTaPS **Kenya** team, in collaboration with the MOH Directorate of Health Products and Technologies (DHPT), finalized the reviews of the Kenya Essential Medicines List (KEML) 2023 and the KNMF 2023, which both incorporated AWARe categorization. Both documents were launched by the President of Kenya. By adopting AWARe categorization, Kenya now moves into the pool of the few countries that are on the path to preserve antibiotic effectiveness. MTaPS also supported the NASIC to finalize the AMR and AMS IEC materials and SOPs. In **Nigeria**, at a NEML review meeting, the first edition of a NEML for children was assessed for inclusion, and the case was made for incorporating a WHO AWARe list for children to reduce misuse of antibiotics in patients where antibiotics have been gravely misused. MTaPS **Tanzania** worked with the MOH, the AMS TWG, and the Awareness and Education TWG to train 116 (53 female) participants from 14 hospitals on stewardship practices using the AMS curriculum and training manual developed with MTaPS' support. Tanzania now has a pool of experts that can be used for scaling up HR capacity in AMS.

Assessing AMS capacity at the national and local levels and developing action plans: MTaPS **Senegal** participated in the review and validation of tools to collect national AMC data, ahead of the training for data collectors. These new tools add to the set of tools that the country can use to monitor and improve AMC. MTaPS supported the review of CQI plans for AMS in supported HFs in **DRC**. In **Côte d'Ivoire**, MTaPS supported the AMS MTC to hold two meetings to finalize the protocol for the point prevalence survey of antibiotic use and discuss potential sources of funding for the assessments. MTaPS **Burkina Faso** collaborated with the DGSV to organize an official handover ceremony for the standard guidelines to regulate the rational use of antimicrobials in livestock, which MTaPS helped develop. Historically, antibiotic use in livestock has not been given the attention it deserves in many countries; Burkina Faso's efforts support food security and also minimize the human-animal AMR transfer interface. Furthermore, MTaPS supported the Directorate of Hospital Pharmacy and selected regional hospitals to organize a workshop to develop a list of authorized prescribers, define prescribing criteria, and develop a guide to regulate visits from pharmaceutical company representatives to promote their products at the facility. In **Bangladesh**, MTaPS supported the AMR focal point to validate the prioritized activities from the AMS national action plan for short-term implementation. MTaPS also conducted supervision visits to its 9 supported HFs. During the visit, the MTaPS team met with the facility teams to discuss how they can sustain their AMS activities easily when MTaPS closes. MTaPS conducted an AMS end-term assessment at 15 MTaPS-supported HFs in **Kenya** to determine the status of AMS program implementation over the 5-year program period and the results. The findings were disseminated during the MTaPS close-out and dissemination meetings with the counties.

Strengthening individual and local capacity in AMS: In **Senegal**, MTaPS supported the training of 23 members (8 female) of the Hospital Medical Committee at Kaffrine Hospital to strengthen prescribers' capacities. The training was facilitated by a trainer from the national pool of trainers and a member of HOGIP's medical committee, all trained with MTaPS support. This leaves the country with stronger HR capacity that can cascade training to other personnel. The MTaPS **Burkina Faso** team shared the

results and lessons learned from the antibiotic use audits conducted at supported facilities to raise awareness on antibiotic misuse and to foster behavior change on prescribing. MTaPS also participated in a roundtable discussion during an Inter-University Diploma course on antimicrobials hosted by the NAZI BONI University of Bobo-Dioulasso. This discussion involved technical experts on AMR from Africa speaking to 71 university students from 12 countries in sub-Saharan Africa. Focusing on pre-service training supports the creation of a new pool of professionals that is cognizant of their role in AMR containment. In **Côte d’Ivoire**, MTaPS helped the AMS MTC organize a training session for DTC members from 20 MTaPS-supported facilities on how to collect AMS data with WHO evaluation tools and the drug committee supervision grid.

BEST PRACTICES/LESSONS LEARNED

- HCWs are more committed to acquiring knowledge through peer learning than solely from an expert teacher. Programs should thus support centers of excellence that can be used for benchmarking and support peer-to-peer learning among HCWs. In Bangladesh, peer-to-peer learning has continued to impact AMS practices following visits among HCWs.
- Standard tools can be effectively customized to local tools and contexts to address local situations or apply in new settings, e.g., adapting IPCAT2/IPCAF for the animal sector. In DRC, the IPCAF tool was modified to assess IPC at farms, while in Ethiopia, the standard IPCAF tool was customized to country context. Both countries have continuously used these tools for routine assessment. Ethiopia has further incorporated this assessment into DHIS2 to increase and sustain facility-level reporting on IPC.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	
Global	<ul style="list-style-type: none"> ▪ Provide feedback to USAID on JEE 3 and how IHR benchmarks will be reported
MSC	<ul style="list-style-type: none"> ▪ Continue facilitating meetings of MSC-AMR bodies and/or their TWGs (Senegal, Tanzania, Mali, Côte d’Ivoire, Nigeria, DRC) ▪ Finalize and launch the new NAP-AMR and M&E frameworks (Nigeria) ▪ Train M&E officers from the quadripartite ministries (Nigeria) ▪ Organize HCAI surveillance manuscript development meeting (Nigeria) ▪ Support NC-AMR in conducting joint MSC field supportive supervision and help conduct the annual TrACSS (DRC) ▪ Provide technical assistance to develop and disseminate IEC materials related to AMR containment (DRC) ▪ Help establish an e-Learning platform to continuously train and update NC-AMR members and professionals (DRC) ▪ Support 30 participants from each MTaPS-supported health facility to take e-Learning courses (Côte d’Ivoire) ▪ Support the AMR TWG in organizing a lessons learned and experience-sharing workshop (Côte d’Ivoire)
IPC	<ul style="list-style-type: none"> ▪ Help conduct a locally led second assessment of the national IPC program using IPCAT2 (Côte d’Ivoire) ▪ Conduct mentoring visits to health facilities (Tanzania, Côte d’Ivoire) ▪ Undertake AMS Extension for Community Healthcare Outcomes (ECHO) mentorship (Tanzania) ▪ Support the IPC-WASH group to develop an IPC operational plan for the human health sector (Mali)
AMS	<ul style="list-style-type: none"> ▪ Support the national antimicrobial consumption and use survey (Senegal) ▪ Help the DPM to disseminate IEC materials on AMS (Mali) ▪ Continue providing supportive supervision to facilities (Mali) ▪ Support dissemination of the national stewardship and clinical treatment guidelines that include the WHO AWaRe categorization of antibiotics (DRC) ▪ Help conduct a national-level AMS capacity assessment (Côte d’Ivoire)

B. COVID-19

COVID-19 RESPONSE AND VACCINE INTRODUCTION

In May 2023, WHO declared that COVID-19 no longer represented a global health emergency. Most MTaPS countries reported a noticeable decline in COVID-19 cases and shifted the health priorities from pandemic response to strengthening the preparedness based on COVID-19 lessons learned. The governments are looking into health system improvements based on the innovations and lessons from the pandemic response and building on OHPs. This marked the conclusion of the COVID-19-specific activities in most of the MTaPS countries in quarters 3 and 4, including Bangladesh, Burkina Faso, Mali, Mozambique, Nigeria, the Philippines, Senegal, and Tanzania, with five countries—Cameroon, Côte d'Ivoire, Kenya, Madagascar, and Rwanda—continuing activities in PY6. In these countries, MTaPS supports COVID-19 vaccination integration into national immunization programs, targeting vulnerable and hard-to-reach populations, actively promoting vaccine safety M&E-based information, and engaging private-sector providers and communities.

MTaPS COVID-19 activities are fully aligned with the objectives and result areas of the USAID Implementation Plan for the US COVID-19 Global Response and Recovery Framework, published in October 2021. The MTaPS COVID-19 interventions support two USAID objectives and eight result areas, as described below.

USAID OBJECTIVE 1: ACCELERATE WIDESPREAD AND EQUITABLE ACCESS TO AND DELIVERY OF SAFE AND EFFECTIVE COVID-19 VACCINATIONS

- Result area 1.2: Cold chain and supply logistics
- Result area 1.3: Human resources for health
- Result area 1.4: Service delivery
- Result area 1.5: PV and safety monitoring

USAID OBJECTIVE 2: REDUCE MORBIDITY AND MORTALITY FROM COVID-19, MITIGATE TRANSMISSION, AND STRENGTHEN HEALTH SYSTEMS, INCLUDING TO PREVENT, DETECT, AND RESPOND TO PANDEMIC THREATS

- Result area 2.1: Risk communication and community engagement
- Result area 2.4: Infection prevention and control
- Result area 2.5: Case management
- Result area 2.6: Coordination and operations

CUMULATIVE PERFORMANCE TO DATE: HIGHLIGHTS FROM THE COUNTRIES THAT COMPLETED ACTIVITIES BEFORE YEAR 6

In Bangladesh, at the start of the pandemic, MTaPS, in conjunction with DGHS, rapidly produced information and communication materials on COVID-19 for the population, developed guidelines for health care settings, and trained 5,101 HCWs (1,679 female) on IPC precautions. To avoid the stockouts of vital IPC products at the peak of the pandemic, MTaPS supported the DGHS in developing and rolling out the COVID-19 eLMIS to monitor stock status of emergency IPC commodities in real

time across all HFs and medical stores. Stock data can now be managed through the CMSD online portal (cmsd.gov.bd) for both COVID and non-COVID health commodities. Another element of the DGHS's integrated MIS supported by MTaPS was the COVID-19 Vaccine Logistic Management System (vLMIS). Together with the MTaPS-supported COVID-19 vaccine safety surveillance system, which responded to over 4,500 AEFI reports, this TA contributed to achieving an impressive 82% COVID-19 vaccine coverage in Bangladesh.

In Burkina Faso, MTaPS supported the Directorate for Vaccine Prevention in the development of microplans related to the implementation and management of COVID-19 vaccination activities at the regional and district levels and their dissemination through workshops to 585 (80 female) participants. MTaPS trained 888 (405 female) HCWs and supported the launch of an IPC e-learning platform in collaboration with the Ministry of Health's Directorate of Health Information Systems to provide free access to IPC training for all health workers and to promote continuous IPC refresher training for health workers.

In Cameroon during the peak of the COVID-19 pandemic, MTaPS helped the MOH to develop a pocket guide for risk communication and community engagement to contain transmission and mitigate the pandemic impact. MTaPS led the development of SOPs and trained 1,534 health care and community workers (828 female) on IPC precautions and waste management. When vaccines became available, MTaPS supported the Expanded Program of Immunization (EPI) in conducting COVID-19 vaccination campaigns including selected hard-to-reach areas in the three supported regions (Center, Littoral, and West). Overall, 683,589 people received recommended COVID-19 vaccine doses in Cameroon with MTaPS support, including 576,850 during phase 1 and 106,739 during phase 2, by mobile teams, data managers, and supervisors supported by MTaPS.

In Côte d'Ivoire in response to the pandemic, MTaPS supported the Directorate General for Health in strengthen the capacity of 3,599 (1,130 female) health workers nationwide on IPC COVID-19 skills through direct training and training of 12 national-level and 36 regional-level master trainers for cascaded knowledge transfer; skills included COVID-19 precautions, triage, safety of injection practices, disinfection, and waste management. MTaPS also helped strengthen COVID-19 IPC compliance capacity in 39 hospitals, innovating and promoting the use of WHO Afro IPC scorecards for performance monitoring and using a supportive-supervision approach—which achieved 89% compliance (a 14% improvement) across 36 facilities—and provided waste management training and materials to 17 regional referral hospitals and the Bouake University teaching hospital. When vaccines became available in Côte d'Ivoire, the MTaPS team assisted the Directorate of Coordination of the Expanded Immunization Program with training of 2,017 HCWs and vaccinators (616 female) on topics related to storage, handling, delivery, and waste management of COVID-19 vaccines and trained 1,681 vaccinators (435 female) on topics related to IPC, which enhanced the efficiency and safety of vaccine delivery.

In Ethiopia, 2,481 (782 female, 1,699 male) health workers working in 122 isolation, quarantine, and treatment facilities received training on COVID-19 IPC with MTaPS support. The training played a critical role in equipping frontline workers with essential skills to contain and manage the spread of the virus. MTaPS supported the development of the National Preparedness and Response Plan and 24 regional and facility IPC guidelines and SOPs for COVID-19, including on a local solution to improve

supply of hand hygiene products (alcohol-based hand rubs) to combat the spread of COVID-19 infection in hospitals.

In Madagascar, MTaPS supported the MOPH in the development of an action plan for networking of peripheral laboratories with the Central Medical Laboratory of Madagascar (LA2M) to streamline the diagnostic process for COVID-19 and other communicable diseases. MTaPS developed training materials for laboratory quantification and supply management, a COVID-19 RDT and testing techniques, including the GeneXpert platform, and the use of harmonized electronic registers and data entry into the DHIS2 system.

In Mali, MTaPS assisted the MOH and the Directorate General for Health and Public Hygiene with launching an [e-learning platform](#) with 10 standard IPC and 6 COVID-19 IPC modules, increasing access to IPC training in a sustainable way. MTaPS directly trained 289 (237 male, 52 female) master trainers and HCPs from 41 HFs at the district level on implementation of and monitoring compliance with the IPC guidelines, including for cleaners, ambulance drivers, and morgue attendants, to protect themselves and their community from infection risks. MTaPS helped the MOHSD strengthen the capacity of 383 health workers (287 male, 96 female) in vaccine-related topics, including vaccine waste collection, transport, and disposal; vaccine safety surveillance; and AEFI reporting and investigation.

In Mozambique, with MTaPS support, more than 6,600 HCWs received training on COVID-19-related IPC and WASH, and COVID-19 e-learning modules were developed to support ongoing education, skill enhancement, and preparedness to effectively manage and mitigate the spread of COVID-19. MTaPS supported the MOH in the development of a COVID-19 IPC emergency supply chain management strategy, which was crucial for ensuring the timely distribution of essential medical supplies. MTaPS supported the MOH in strengthening IPC for the COVID-19 vaccination campaign by developing training materials and conducting cascade trainings for 130 HCWs (69 male, 61 female) in Maputo City and Maputo Province on COVID-19 vaccination-related IPC and waste management, thus enhancing the safety and efficiency of the national vaccination campaign.

In Nigeria, MTaPS supported the government to expand equitable access to COVID-19 vaccines through the engagement of private clinics and pharmacies and communication with communities in the states of Oyo, Akwa-Ibom, Cross River, Rivers, Kaduna, and Federal Capital Territory. MTaPS worked collaboratively with the state primary health care boards, the professional associations for pharmacists and doctors, and other implementing partners involved in COVID-19 vaccination, such as WHO, UNICEF, and Breakthrough ACTION Nigeria, to develop and implement a vaccination training manual, SOPs, standard criteria, and minimum requirements for private community pharmacies to participate in the program. MTaPS, in collaboration with the Association of Community Pharmacists in Nigeria, the Trans-Generational Pharmacies Development Foundation, the University of Lagos, the Mercer University, and the Pharmacy Council of Nigeria, trained 948 (296 male, 652 female) private HCPs on all aspects of COVID-19 immunization. As a result of the private-sector engagement in the six supported states, more than 120,000 doses of COVID-19 vaccine—primary series and boosters—have been delivered to 62,011 females and 60,163 males through 82 community pharmacies and 64 private hospitals in the supported states, showcasing a successful public-private partnership in the COVID-19 pandemic response.

In the Philippines, within the first six months of the pandemic, MTaPS conducted wide-scale emergency trainings of 14,076 (including 10,028 female) health workers and military personnel on IPC, HCWM, and emergency supply chain management for COVID-19, utilizing all available means for virtual training. MTaPS then transferred the training materials to the DOH Academy's e-learning platform, where an additional 15,600 learners completed the courses. During the same period, MTaPS provided direct technical assistance to 42 hospitals, improving their compliance with good COVID-19 IPC and HCWM practices and thereby safeguarding patient and hospital staff health. With MTaPS' support, COVID-19 vaccine management has been integrated into the national eLMIS, which helped streamline real-time tracking and distribution of vaccines and ensure efficient and transparent management of vaccine inventory. The system was expanded to include tracking of mechanical ventilators and medical devices at the hospitals and transitioned to the DOH supply chain management service. MTaPS also supported the DOH in the development of the terms of reference for engaging third-party logistics providers for COVID-19 vaccines to ensure that these service providers meet compliance standards at both the central and local government unit levels, which improves reliability in the distribution and handling of COVID-19 vaccines and is particularly critical for vaccines that require specific temperature conditions.

In Rwanda, MTaPS supported the Rwanda FDA in the development of the "Guidelines for Surveillance of Adverse Events following Immunization" (2021), which included COVID-19 vaccines. MTaPS then partnered with the National Pharmacovigilance Centre Lareb (Netherlands) to support the Rwanda FDA, the National Pharmacovigilance Advisory Committee, and the AEFI Committee in strengthening the capacity of 23 (14 male, 9 female) of their staff/members on AE signal detection, prioritization, validation, and analysis, including COVID-19 vaccines. MTaPS also trained 103 health workers (37 female, 66 male) on COVID-19 vaccine PV; these health workers reviewed more than 670 AEFI reports following COVID-19 vaccination, including 79 serious events. Additionally, MTaPS supported the Rwanda FDA with the deployment of the IRIMS. The IRIMS supports registration of COVID-19 vaccines and related market authorizations, among other things. With MTaPS' support, the Rwanda FDA conducted good clinical practice inspections in 10 clinical trial sites to review quality assurance tools, SOPs, and staff competencies, including 2 sites which administered COVID-19 vaccines to pregnant women.

In Senegal, to minimize stigmatization of households and families visited during the sessions, MTaPS, in conjunction with regional hygiene brigades and the National Hygiene Service, carried out [communications campaigns](#) on COVID-19 to promote safe behaviors for individuals, families, and groups. MTaPS helped the MOH to strengthen capacity for decontamination and dealing with infections at the community level by developing SOPs on IPC precautions, use of PPE, decontamination of treatment centers, households, and nonhospital facilities, and waste management and by supporting 985 decontamination and disinfection sessions in Dakar, Thiès, and Diourbel. Overall, MTaPS trained 1,512 people (768 female) on IPC for COVID-19. When vaccines became available in Senegal, MTaPS supported the MOH in development and implementation of 13 COVID-19 vaccination microplans at the regional and district levels. Microplanning proved to be an efficient tool for delivering vaccines to the population, resulting in the MOH's Expanded Vaccination Program decision to roll out microplanning nationwide.

In Tanzania, to support the national response to the pandemic, MTaPS developed, revised, and distributed SOPs on COVID-19, trained 1,373 (640 male, 733 female) workers on COVID-19 IPC, and

provided technical assistance on IPC strengthening to 193 HFs. When vaccines became available in Tanzania, MTaPS supported the Tanzania Medicines and Medical Devices Authority (TMDA) in strengthening the AEFI surveillance system for COVID-19 vaccine safety monitoring and trained 424 HCWs (172 male, 252 female) on topics related to recording and monitoring COVID-19 vaccination and AEFIs. This support resulted in the reporting of 887 COVID-19 AEFIs to the TMDA during the project period, including 6 serious events that triggered TMDA investigation, and led to a regulatory response including feedback letters to health providers, increased supervision, and better facility equipment with AEFI kits.

In Uganda, a national COVID-19 IPC training manual was developed with MTaPS support to provide a standardized resource for HCPs to guide on effective IPC practices across the country to combat the pandemic. MTaPS supported a mentorship program that created 45 district COVID-19 IPC committees and trained 486 mentors linked to 858 HFs in 5 regions, who trained 5,452 HCWs on IPC for the COVID-19 response. Overall, 5,148 mentorship visits were conducted over the 12 months of the program.

QUARTER 1/Y6 HIGHLIGHTS FROM THE MTAPS COUNTRIES THAT CONTINUED TO IMPLEMENT ACTIVITIES THIS QUARTER

In Cameroon, MTaPS supported the EPI in organizing a workshop November 22–24, 2023, for 40 participants (21 female) from the Center, East, and South regions on the management of safe destruction of biomedical waste. The workshop was built upon the MTaPS-developed SOP manual on biomedical waste management. The workshop resulted in the development of regional waste management action plans to address improvement in handling waste from routine immunization and campaigns.

Cote d'Ivoire has the most COVID-19 funding of the MTaPS countries and a diverse program of activities focusing on the improvement of access to the vaccination services and supporting the national OHP to strengthen public health emergency coordination, including for COVID-19.

In quarter 1, MTaPS supported the Directorate of Coordination of the Expanded Immunization Program in the implementation of the national operational plan for the integration of COVID-19 and routine immunization following the declaration by the National Security Council of April 14, 2023. MTaPS facilitated the supervision of COVID-19 vaccination actors during the EPI vaccination intensification campaigns in October and November 2023 by training and supporting 28 national supervisors (4 female, 24 male) to improve vaccination coverage in 38 metabolic disease management units (UPECs). Over the course of the vaccination campaign, vaccination coverage of the target population by the supported UPECs increased from 9% (September 2023) to 54% (December 2023). Challenges related to the integration of vaccination in nonsupported UPECs include a lack of human resources to reach out to people in the risk groups (those with hypertension, diabetes, etc.) and challenges in sharing vaccination data between the clinical side (UPEC—General Hospital) and the public health authorities (health districts). Another strategy to increase vaccination coverage included the introduction of vaccination services in private clinics and pharmacies. MTaPS signed a new contract with EnovPharm to conduct accelerated training to ensure the successful implementation of the VACCIPHA initiative, including the support to VACCIPHA focal points (VFPs) to assume operational responsibilities and ensure

sustainability at the district level. Ten VFPs (5 male, 5 female) were supported in 10 districts in Abidjan, including Adjamé Plateau Attécoubé, Cocody-Bingerville, Abobo Ouest, Koumassi, Treichville-Marcory, Port Bouet Vridi, Abobo Est, Yopougon Est, Yopougon Ouest-Songon, and Anyama. The initiative has facilitated 3,828 vaccinations, demonstrating its potential for long-term impact.

MTaPS supported the OHP in strengthening public health emergency coordination, including for COVID-19. MTAps provided technical and financial support for the 6th National One Health Day, held on November 3, 2023, at the Institut Nationale de Santé Publique. A total of 261 participants (165 male, 96 female), attended the event. The theme of the day was "From words to actions."

In quarter 1, MTAps provided technical and financial support to the OHP in carrying out a workshop, followed by internal and external evaluations of IHR (2005) capacities using the JEE version 3 tool. The JEE highlighted the considerable progress made by the Republic of Côte d'Ivoire in health security and response to public health emergencies in recent years, including in the three technical areas supported by MTAps: for both MSC-AMR and optimizing the use of antimicrobial agents in human health, the score shifted from 1 (no capacity) in 2016 to 3 (developed capacity) in 2023, and for IPC programs, the score went up from 1 (no capacity) in 2016 to 2 (limited capacity) in 2023. The evaluation will inform the development of the One Health Strategic Plan 2023–2027 and the National Health Security Action Plan (PANSS) 2023–2027.

In Kenya, in quarter 1, MTAps received COVID-19 funding (CN240) for implementation of target activities focusing on PV and clinical trials and aimed at strengthening Kenya's capacity through the PPB and the National Quality Control Laboratory to attain WHO ML 3 status. MTAps developed a work plan which was approved by USAID. Implementation will start in quarter 2, with staff recruitment already done.

In quarter 1 in Madagascar, MTAps continued the activities focusing on strengthening the diagnostic network. MTAps supported the assessment of three recently established medical laboratories of Madagascar (LA2M) in Fort-Dauphin, Toliary, and Fianarantsoa using the WHO laboratory assessment tool. MTAps contributed to the establishment of the LA2M by supporting the transportation of the diagnostic equipment to the sites and the training logistics for the laboratory staff. MTAps also supported the MOPH through the Directorate of Pharmacy, Laboratory and Traditional Medicine in orienting 27 participants (14 male, 13 female), among them regional training office members, on the manual for management of laboratory supplies (including COVID-19 diagnostic tests). This orientation workshop took place from December 17 to 23, 2023, in Antsirabe. MTAps held technical meetings with LA2M and the studies, planning, and information systems directorate to assist the MOPH through those directorates to select the management software to be used for the LIS of LA2M.

For more information about MTAps' COVID-19 activities, [click here](#).

Table I. MTaPS COVID-19 Quarter I, FY24, indicators³ (detailed breakdown can be found in annex 3)

Indicator and Disaggregation		Q1 FY24	Total from March 2020
Objective 1. Accelerate widespread and equitable access to and delivery of safe and effective COVID-19 vaccinations			
CV.1.3-3 Number of people trained on COVID-19 vaccine-related topics with MTaPS' support			
Number of people trained		210	11,546
Sex	Male	30	6,156
	Female	8	5,198
	Unknown sex	172	192
CV.1.4-5 Number of vaccination sites supported by USG during the reporting period			
Number of vaccination sites supported		182	26,810
Types of sites	Fixed sites	38	11,310
	Community-based outreach vaccination sites	144	12,979
	Mobile team (or clinic) or transit team strategy	0	1,097
	Mass vaccination sites/campaigns	0	1,424
	Unknown	0	0
Objective 2. Reduce morbidity and mortality from COVID-19, mitigate transmission, and strengthen health systems, including to prevent, detect, and respond to pandemic threats			
CV.2.3-15 Number of health workers trained in COVID-19 testing or specimen transport with USG support			
Number of health workers		27	90
Sex	Male	14	47
	Female	13	43
	Unknown sex	0	0
CV.2.6-22 Number of policies, protocols, standards, and guidelines across any of the result areas developed or adapted with MTaPS' support			
Number of policies, protocols, standards, and guidelines		1	123

³ In Cameroon, COVID-19 activities were implemented but did not correspond to any indicators. The Kenya and Rwanda work plans had not yet been approved during PY6 quarter I so these countries did not implement any COVID-19 activities on which data can be reported for quarter I. The Philippines and Tanzania COVID portfolios closed at the end of PY5, and thus, there are no data to report for PY6.

COVID-19 IMMUNIZATION COSTING

OVERVIEW

LMICs have been facing an incredibly challenging vaccine rollout and COVID-19 vaccine delivery, and the cost to deliver these vaccines is highly uncertain. According to WHO, as of June 2023, just 37% of Africa's population had completed their primary vaccination series, compared with a coverage of 70% at the global level.⁴

Data on the actual costs of delivering COVID-19 vaccines in LMICs are limited. As the supply of vaccines increases, it is important to know how much is spent to deliver the vaccine to inform strategies and plans and identify funding sources and gaps. Although existing data, including pre-COVID-19, on the costs of routine immunization, immunization campaigns, and other health campaigns can be used to generate plausible estimates of these costs, targeted data collection efforts are necessary to refine these estimates and ensure that they remain grounded in the realities faced by LMICs.

There are some resources, such as tools and guidance developed by WHO and its partners, which can be helpful in generating estimates of COVID-19 vaccine delivery costs. The modeled, top-down work conducted by the COVAX Working Group on vaccine delivery costs produced a single estimate of USD 1.41 per dose. Importantly, the COVAX Working Group also limited its early cost estimates work to 20% coverage of the population, even though coverage rates in LMICs continue to languish far below 20%. It is important to build a model that takes a broader perspective on how and where the population will get vaccinated.

CUMULATIVE PERFORMANCE TO DATE

Modeling the cost of delivering COVID-19 vaccines

To date, MTaPS has assessed the available modeling tools and determined that the Harvard/COVAX model has the granularity and features that can be fit for purpose. MTaPS conducted a model adaptation and developed a scenario builder on the various cost estimates for delivering COVID-19 vaccines under different assumptions. The scenario builder was used four times.

Costing study, Malawi

MTaPS has been gathering more detailed vaccine delivery expenditure data in Malawi. MTaPS designed a protocol for the country studies based on the guide *How to Cost Immunization Programs*, WHO's COVID-19 vaccine introduction and deployment costing tool, and ThinkWell's COVID-19 Vaccine delivery costing protocol.

In Malawi, MTaPS sought and was granted IRB approval. Data collectors have been gathering expenditure data through surveys and interviews in the national office, supplemented by facility-level secondary data collection from 20 facilities. After MTaPS received IRB approval from the National Health Sciences Research Committee of Malawi, a team of experts immediately started the data collection efforts in the Mangochi, Mwanza, Mzimba South, and Lilongwe districts. Data collection was

⁴ <https://ourworldindata.org/covid-vaccinations>

completed by the end of February 2023. The data cleaning and analysis were carried out and completed by the end of June 2023.

Although the global COVAX model was a powerful tool to estimate the cost to deliver COVID vaccinations at a time of great uncertainty, the real cost of delivering the COVID-19 vaccine at 20 HFs in Malawi was found to be much higher than the modeled estimate, mostly due to hidden expenses, such as the time health workers had to dedicate to the vaccination effort.

Global surveys

Global estimates require assumptions, which would benefit from in-country intelligence. MTaPS conducted online surveys of health experts working in each of its countries to gather real-time COVID-19 vaccine delivery data, including human resources, types of delivery sites/methods, availability of supplies, capacity of cold chain, implementation of demand generation campaigns, and integration of vaccine services into the health systems. Two surveys, completed in November 2021 and May 2022, identified evolving trends in vaccine delivery at the country level. MTaPS conducted a third online survey of health experts working in each of its countries to gather real-time COVID-19 vaccine delivery data throughout the changing dynamics of the pandemic.

Additional work

Findings from both the country study and the global surveys were presented at the Immunization Economics Special Interest Group (SIG) Pre-Congress Session of the International Health Economics Association (IHEA) Congress in Cape Town in July 2023 and to USAID in September 2023. The findings of two rounds of global surveys were published by the journal *Vaccine* in September 2023.

Lastly, MTaPS has supported ad hoc requests beyond the scope mentioned in the work plan. In January–February 2022, MTaPS conducted a desk review across 4 databases, screened 530 articles, and identified 20 studies relevant to social mobilization (14) and campaign/outreach strategies (6). The purpose of this exercise was to gather insights to improve the MTaPS-adapted Harvard/COVAX costing model.

MTaPS has conducted assessment of Cooperative for Assistance and Relief Everywhere (CARE) studies on the cost of COVID-19, conducted comparative assessment with Access to COVID-19 Tools (ACT) Accelerator studies, and led two large presentations with major stakeholders at the USAID-UNICEF-led Funders Forum and the USAID COVID-19 Task Force Leadership.

QUARTER I/YEAR 6 ACHIEVEMENTS AND RESULTS

In quarter I of year 6, the team presented the findings of costing data of the vaccine delivery in Malawi to the USAID Malawi mission. Together with USAID, the team has been working on dissemination of the findings to the MOH in Malawi.

Sharing the findings from our work is crucial for the final stages of the project. Two manuscripts are being developed to present the results from the third global survey and the findings from the costing work in Malawi.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Present the findings of costing data of the vaccine delivery in Malawi to the Malawi MOH	January 2024
Publish the results of the global survey	March 2024
Publish the results of the Malawi study	March 2024

C. MATERNAL, NEONATAL, AND CHILD HEALTH (MNCH)

OVERVIEW

The goal of the MTaPS MNCH core-funded portfolio is to ensure the availability and appropriate use of safe, effective, and quality-assured medical products and effective pharmaceutical services to reduce maternal, newborn, and child mortality by strengthening pharmaceutical systems. Strengthening pharmaceutical systems is essential to achieving SDG 3 targets 3.1 and 3.2 for MNCH and requires a holistic look beyond product availability and logistics to additionally strengthen other system components—such as governance, regulation (including PV), financing, information, human resource capacity, and pharmaceutical services—that affect access to and appropriate use of medicines, technologies, and supplies.

CUMULATIVE PERFORMANCE TO DATE

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE INCREASED

Sub-objective 1.3: Stakeholder engagement and empowerment, including civil society and consumers, increased for access to medicines, technologies, and supplies for women, newborns, and children

In PY3, MTaPS developed a [discussion paper](#) and an accompanying [summary brief](#) of key messages and action points on engaging civil society in social accountability to improve access to and appropriate use of safe, effective, and quality-assured MNCH medical products and services. In Q3 of PY5, MTaPS and the MOMENTUM Knowledge Accelerator cohosted a knowledge exchange on best practices in social accountability for more than 60 experts from other USAID-funded projects to discuss the lessons learned from the MTaPS discussion paper, underscoring similarities across varied contexts in the challenges and approaches to addressing social accountability.

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT AND SERVICES, INCLUDING REGULATION OF MNCH PRODUCTS, STRENGTHENED

Sub-objective 2.1: Regulatory system for MNCH medical products improved

As a follow-on to the PY2 [mapping of challenges in registering MNCH medical products](#) in nine countries, MTaPS supported Mozambique's regulatory authority, ANARME, IP, to build [capacity of 13 assessors from ANARME, IP in the assessment of bioequivalence studies](#) for generic oral medicines and helped ANARME, IP to increase the visibility and transparency of registration procedures through a [workshop with 70 manufacturers, importers, and distributors](#). In PY4, MTaPS held a regional knowledge exchange with regulators from SADC member states and selected manufacturers of MNCH medicines on the optimization and prioritization of MNCH medical product registration. MTaPS has developed an advocacy document for NMRAs to prioritize the registration of MNCH medicines in their countries. A summary of this work was presented at the International Maternal and Newborn Health Conference in Cape Town in May 2023.

Additionally, to strengthen the regulation of MNCH medical devices and ensure their quality, safety, and effectiveness, MTaPS supported the AMDF to develop a [guideline on specific considerations for](#)

[regulating MNCH medical devices, which was disseminated across the continent through a virtual orientation hosted by AMDF.](#)

OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION ON MNCH MEDICINES FOR DECISION MAKING INCREASED AND GLOBAL LEARNING AGENDA ADVANCED

Sub-objective 3.1: PSS global learning agenda advanced for MNCH

In PY1, MTaPS seconded a pharmaceutical advisor to the GFF who developed resources for GFF country focal points and country teams on the management of medicines and supplies and guidance on quality in medicine procurement. MTaPS conducted webinars for GFF country teams on the importance of prioritizing a robust pharmaceutical system to support MNCH interventions and successfully advocated for inclusion of a section on managing medicines in the GFF annual report. As a result of the secondment, the GFF recruited a pharmaceutical advisor as staff.

In Liberia, the MTaPS senior principal technical advisor seconded to the GFF supported the MOH and the WB PBF team to establish an FA for county procurement of specific MNCH medicines and supplies from approved wholesalers when the Central Medical Stores are unable to supply them. The FA is a means for counties implementing PBF to ensure availability of quality medicines.

As part of the global learning agenda on pharmaceutical systems for MNCH, MTaPS developed a microlearning seminar series to raise awareness and understanding of why PSS is important for women's and children's health outcomes. [Three microlearning videos](#) complement MTaPS' training programs on PSS and are posted as a key part of the [PSS 101 e-Learning course](#).

In PY2, MTaPS described the subnational procurement practices in Liberia, Nigeria, and Tanzania in a technical brief highlighting key areas that should be considered to ensure the quality of products procured. In Nepal, through a mapping conducted in PY2 and PY3 and disseminated in PY4, MTaPS supported the MOHP in understanding the challenges of subnational procurement of essential medicines, including for MNCH. MTaPS also supported the MOHP in identifying key interventions to improve the quality of and access to medicines procured at subnational levels and including those interventions in annual budgets and plans at the national and subnational levels. Building on the mapping of subnational procurement practices in Nepal, MTaPS developed a [global guidance document on best practices in subnational procurement of MNCH commodities](#) in the public sector.

OBJECTIVE 5: PHARMACEUTICAL SERVICES FOR WOMEN, NEWBORNS, AND CHILDREN—INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE—IMPROVED

Sub-objective 5.1: Availability of essential medicines, supplies, and other health technologies for MNCH improved

In PY2, MTaPS updated the 2016 forecasting supplement for lifesaving essential reproductive, maternal, newborn, and child health (RMNCH) commodities aligning it with updated WHO recommendations. The updated [RMNCH forecasting supplement](#), available in English and French, has been disseminated through several webinars to more than 160 people and eight country teams and is referenced in the recent Global Fund (GF) guidance to countries to consider the inclusion of nonmalaria commodities in their GF proposals. To support countries to include nonmalaria commodities for the community level in their GF funding requests, MTaPS developed tools for countries to estimate their needs and facilitate

completion of the commodities gap analysis table required for GF funding requests. MTaPS participated in the mock TRP for malaria in Dakar and Ethiopia, engaging with countries submitting funding requests in windows 2 and 3. MTaPS worked with seven countries (Angola, Ethiopia, Gambia, Kenya, Liberia, Madagascar, and Rwanda) to consider including nonmalaria iCCM commodities in their GF funding request, and three countries included nonmalaria commodities.

After identifying a gap in support for countries to ensure quality of medical oxygen, MTaPS developed a [technical resource document for the quality assurance of medical oxygen](#) from source throughout the distribution chain to delivery to the patient, through a consultative process. This was disseminated in a well-attended virtual event, with panelists and oxygen champions from across Africa reflecting on the importance of ensuring oxygen quality and how to do it.

Sub-objective 5.2: Pharmaceutical services for women and children improved

In PY1, MTaPS updated a set of [job aids and dispensing envelopes](#) for HCPs and caregivers to promote adherence to correct treatment protocols for amoxicillin dispersible tablets (WHO-recommended first-line treatment for pneumonia in children under 5 and, in combination with gentamicin, for possible serious bacterial infections in newborns). Following preparations in PY3, MTaPS in PY4, in collaboration with UNICEF, USAID, GHSC-PSM, and PQM+, held a series of [consultative meetings](#) with wide stakeholder engagement to address bottlenecks in access to and appropriate use of amoxicillin and gentamicin. Key points are summarized in a [call-to-action paper](#) that provides actionable solutions for countries and was widely disseminated for example at the 2nd Global Pneumonia Forum in Madrid in April 2023 and during webinars for USAID missions and with the CHTF to spark action at the country level.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT AND SERVICES, INCLUDING REGULATION OF MNCH PRODUCTS, STRENGTHENED

Sub-objective 2.1: Regulatory system for MNCH medical products improved

Supporting regional collaboration to regulate MNCH medical devices: MTaPS supported the AMDF to hold an in-person capacity building workshop for assessment of technical files for MNCH medical devices. The workshop was held in Dar es Salaam October 31–November 2, 2023, and hosted by the TMDA. There were 25 participants (13 male and 12 female) from 10 countries—representing each of Africa’s economic regions—the AMDF leadership team, and MTaPS. The aim of the workshop was to provide capacity building for the assessment of MNCH medical device technical files for medical device assessors. The workshop included an orientation on the AMDF regulation guidelines and resource document of considerations for regulating MNCH medical devices, developed with support from MTaPS. Participants also reviewed technical files for three MNCH medical devices (fetal monitor, ultrasound, and ventilator) that were pending TMDA review as a learning exercise. The participants appreciated the opportunity to review technical files of MNCH medical devices together to learn from the process and how to apply the specific guidance that the AMDF had published with MTaPS’ support.



Participants and facilitators during the November capacity building workshop on the regulation of MNCH medical devices in Dar es Salaam (Photo Credit: Christina McHau, MTaPS)

Building capacity for regulating medical devices in a region, with a focus on MNCH medical devices: MTaPS is providing support to the TMDA to improve the regulation of medical devices, with a focus on devices for MNCH, to position the agency to be considered as a regional center of excellence once the criteria have been established by the AMDF. An exchange visit of TMDA staff to a strong regulatory authority for medical devices is planned for February 2024. The Saudi Arabia regulatory agency, a WHO collaborating center for medical device regulation, has agreed to host the two nominated TMDA staff. The TMDA has developed a concept note to orient the Saudi regulatory agency on the specific issues the TMDA wants to improve, with a focus on regulating MNCH medical devices.

MTaPS is also coordinating with AUDA-NEPAD for the TMDA to host regulators from a few African countries for a twinning visit to gain capacity to mentor and build the capacity of the visiting regulators. The AMRH Secretariat has made recommendations for the choice of countries and has approached the agency heads to nominate staff to participate in the visit.

Implementing a regional approach to support national regulatory authorities to streamline registration of MNCH medicines in countries: MTaPS and SADC held the ZAZIBONA special session on joint review of MNCH medicines October 10–12, 2023. There were 28 participants (11 male and 17 female), with two participants from eight active SADC countries, one each from the other seven nonactive countries, and four facilitators. The reviewers for the selected products (misoprostol tabs, tranexamic acid inj., magnesium sulphate inj., and calcium gluconate) presented their assessments of the technical files, and the group compiled further information that is required from the manufacturers to approve the products for registration. MTaPS continues to follow up with the NRAs who presented the MNCH medicine dossiers regarding the manufacturers' response to the outstanding questions and the final outcome of the joint review. The assessment reports were uploaded to the ZAZIBONA file sharing platform for reference by other NRAs. During the session, MTaPS presented the document to help NRAs advocate for the prioritization of registration of MNCH medicines. The document was well received and was revised as a result of the discussions.

Supporting the streamlining of registration of MNCH medicines at the continental level: MTaPS continues to discuss with the technical committee responsible for the evaluation of medical

products (EMP TC) and the focal point in the AMRH on opportunities for prioritizing registration of MNCH medicines, MTaPS is planning a meeting with the Africa CDC to advocate for the inclusion of MNCH tracer medicines in the priority list of medical products to be considered for continental assessment. MTaPS attended the 6th Biennial Scientific Conference on Medical Products Regulation in Africa (SCoMRA) in Egypt in December and presented a poster on prioritizing registration of MNCH medicines. During the conference, AUDA-NEPAD and MTaPS cohosted a side meeting on the prioritization of registration of MNCH medicines. The meeting was well attended, with approximately 60 attendees. MTaPS presented the document to help NRAs advocate for prioritization of registration of MNCH medicines, which stimulated rich discussion. MTaPS will collaborate with the AMRH Secretariat to finalize and disseminate the document based on the discussion.

OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION ON MNCH MEDICINES FOR DECISION MAKING INCREASED AND GLOBAL LEARNING AGENDA ADVANCED

Sub-objective 3.1: PSS global learning agenda advanced for MNCH

Developing and disseminating global guidance on local procurement: MTaPS held an external webinar on December 7 to discuss subnational procurement in different contexts and disseminate the [global guidance document](#) on best practices in subnational procurement of MNCH commodities in the public sector. The program featured speakers from MTaPS, USAID, and GHSC-PSM, as well as from decentralized settings in Kenya and Nepal. A total of 119 participants (41% women) joined the webinar, and 376 people had registered. Participants were engaged and active in the chat throughout the webinar with questions and comments. Additionally, a summary of the guidance document, in English and French, has been included as an annex in the [PSM manual on procurement of MNCH medicines](#).

Providing global technical leadership on pharmaceutical systems issues impacting MNCH:

MTaPS attended the Reproductive Health Supplies Coalition general members meeting in Ghana in October, delivering a presentation entitled *Improving Access to Maternal Health Medical Products through Optimization of Product Registration* as part of a panel on maternal health products manufacturing and regulatory concerns. The session generated much discussion on how to streamline registration when there are many different reliance mechanisms open to countries, which can make navigating them challenging. The importance of strong regulatory systems was clear. In November, MTaPS presented posters on subnational procurement and social accountability at the Global Health Supply Chain Summit in Kenya. MTaPS also actively participated in the WHO Technical Convening on Prioritizing WHO-Recommended Maternal and Newborn Health Commodities in Geneva October 30–November 1, 2023. Throughout the three-day meeting, it was stressed that strong systems are needed to ensure the quality and availability of maternal and newborn health medical products and that continued support and investment are needed.

OBJECTIVE 5: PHARMACEUTICAL SERVICES FOR WOMEN, NEWBORNS, AND CHILDREN—INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE—IMPROVED

Sub-objective 5.1: Availability of essential medicines, supplies, and other health technologies for MNCH improved

Technical support to countries to implement GF guidance for procurement of nonmalaria commodities for community case management: During this quarter, MTaPS continued to follow up with countries to

provide support to revise their proposals in line with GF comments. MTaPS received confirmation that neither Rwanda nor Ethiopia included nonmalaria commodities, as the budget was too limited for the malaria items they needed. In Madagascar, MTaPS supported the team to revise the estimate for nine regions and provided guidance on justifying the choice of regions and the funding gap.

MTaPS prepared to present during a webinar on January 23, hosted by the commodities subgroup and iCCM subgroup of the Child Health Task Force with GHSC-PSM on supply chains for CHWs. The intervention will focus on the opportunity for countries to use the GF to finance commodities for community use, the importance of being able to estimate the needs at the community level, and financing of the rest of the supply chain and not just the procurement. The iCCM tools are now available on the [MTaPS website](#).

Improving systems for managing and administering oxygen and other medical devices in the respiratory ecosystem: MTaPS supported the RBC to hold a workshop on quality assurance (QA) of oxygen November 21–23, 2023. During the workshop, participants reviewed the status of QA practices of medical oxygen in the country, used the MTaPS QA of oxygen technical resource and visited health facilities to observe medical oxygen systems practices, and reflected on how they can be modified and/or improved. By the end of the three-day workshop, 42 participants (35 male, 7 female)—spanning all applicable sectors and cadres—developed a draft QA framework for medical oxygen systems in Rwanda. The framework was presented to the oxygen technical working group the day after the workshop and will be incorporated into the national oxygen strategy and roadmap, which are currently being updated.



Workshop participants with MTaPS staff Kate Kikule and Jean Baptiste during the field visit to the CHUK medical oxygen generation facility (Photo credit: Jean Mirimo, MTaPS Rwanda)

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Plan for the exchange visit for TMDA staff to SFDA and for the TMDA to host the twinning visits from the continent	Jan–March 2024
Share the advocacy document on prioritization of registration of MNCH medicines with the EMP TC for dissemination on the continent	March 2024
Present at the community supply chains webinar	Jan 2024
Explore with countries and GF to inform development of a lessons learned document on the use of GF for iCCM commodities	March 2024
Develop draft caffeine implementation guide	March 2024
Plan country activities to increase uptake of amoxicillin	March 2024

D. OFFICE OF POPULATION AND REPRODUCTIVE HEALTH (PRH), COMMODITY SECURITY AND LOGISTICS (CSL)

OVERVIEW

USAID's CSL division promotes the long-term availability of a range of high-quality contraceptives, condoms, and other essential RH supplies and strengthens global and country systems, from manufacturers to service sites. MTaPS, with CSL funds, contributes to the division's goal of promoting the long-term availability of, and improving accessibility to, a range of essential FP/RH commodities by analyzing and recommending approaches for increasing financing and strengthening supply and logistics services.

MTaPS' strategic approach is based on the understanding that implementing a systems-strengthening approach in a country will lead to better commodity security. If MTaPS effectively engages with the various entities in a country—including the private sector, providers, and other community stakeholders—through targeted advocacy and evidence-based technical assistance, government financing of FP/RH commodities will increase. This will contribute to stronger supply and logistics services that will result in the improved availability of, and access to, these commodities at service delivery points.

CUMULATIVE PERFORMANCE TO DATE

INCREASING GOVERNMENT FINANCING OF FP COMMODITIES AND SUPPLY CHAIN IN A DECENTRALIZED HEALTH SYSTEM: A PEA

MTaPS conducted a PEA in Uganda to examine the factors that influence domestic financing of FP products and associated supply chain costs and may shape decisions around increasing government financing within the country's decentralized health system. The PEA enabled the MOH, USAID, and other stakeholders to be better informed about the factors that influence priority setting and financing and procurement allocations for FP commodities, essential medicines, and health products more broadly (at different levels of the system), possible entry points, and interventions. In addition, the PEA is a useful contribution to the development and implementation of a 10-year supply chain roadmap aimed at supporting the GOU to achieve self-reliance in supply chain and securing essential medicines and supplies. Based on the analysis of the desk review and PEA interview data, along with a stakeholder validation meeting, MTaPS developed a policy brief: "[Increasing Government Financing and Resource Allocation for FP Commodities and Supply Chain Operations in Uganda: A Political Economy Analysis.](#)" MTaPS also developed a module that will allow others to apply the [streamlined PEA methodology](#) that MTaPS found effective. The PEA in Uganda was included in a webinar entitled "[How Can Thinking and Working Politically Strengthen Your Health Commodity Supply Chain?](#)," which was organized by the USAID LHSS, and the policy brief and methods module were referred to in the USAID LHSS primer entitled "[The importance of political economy analysis for strengthening health commodity supply chains.](#)"

ADVOCACY FOR GOVERNMENTS TO LEVERAGE PRIVATE-SECTOR LOGISTICS CAPABILITIES TO INCREASE ACCESSIBILITY AND AVAILABILITY OF FP COMMODITIES

In 2021, MTaPS—in collaboration with government counterparts—undertook the first phase of a project to leverage the capabilities of best practice third-party logistics (3PL) service providers and lead logistics service providers (LLPs). Political economy, operational capability, and cost-benefit analyses were conducted in Nigeria and the Philippines. Following analyses of evidence and deliberations, MTaPS developed and disseminated technical reports for Nigeria and the Philippines describing study results and recommendations. In addition, MTaPS produced two advocacy briefs—one for each country—entitled “Building a More Efficient Public-Health Supply Chain through 4PL.” MTaPS also facilitated a webinar for USAID staff in July 2022 on leveraging best practice 3PL or 4PL providers. As part of this phase of the activity, MTaPS developed and used an outsourcing decision framework. This tool could help public-sector decision-makers navigate critical factors and steps to leverage private-sector service providers in supporting the public health supply chain.

USE OF RETAIL PHARMACIES AS A SOURCE OF FP PRODUCTS AND OTHER ESSENTIAL MEDICINES FOR PUBLIC-SECTOR CLIENTS IN LMICs: A THOUGHT LEADERSHIP PAPER

MTaPS developed a [thought leadership paper](#) on using retail pharmacies as a source of FP products and other essential medicines for public-sector clients in LMICs. The paper identified and documented examples of high-income countries and LMICs using private-sector outlets to serve public-sector clients with FP and other essential medicines. MTaPS developed an analytical framework to guide the assessment on how the public sector in high-income countries incorporates retail pharmacies in the provision of FP and essential medicines and mitigates risks associated with the engagement of private-sector pharmacies. MTaPS developed country case reports from three high-income countries (Spain, Sweden, and the United Kingdom) and three LMICs (Namibia, Ghana, and South Africa) and a thought leadership paper highlighting the key considerations, advantages, and disadvantages of engaging retail pharmacies as a source of essential medicines and FP products in LMICs along with lessons learned in the context of COVID-19. The paper was disseminated in an internal USAID webinar and a [global learning series webinar](#) and was [published in the Journal of Pharmaceutical Policy and Practice](#).

EVALUATING THE EFFICACY OF USING A DIGITAL CONSUMPTION TRACKING AND WORKFLOW MANAGEMENT TOOL TO DECREASE UNMET DEMAND AND FOSTER CONTRACEPTIVE CONTINUOUS USE AT LAST-MILE POINT OF CARE

MTaPS started an impact evaluation of a client, stock, and workflow management application (Open SRP) on unmet FP need at the last mile in Luapula Province, Zambia. MTaPS equipped community-based distributors (CBDs) with tablets configured with the application and using an experimental design to:

- Assess the impact of the intervention on satisfaction and continued use of modern FP methods among people with childbearing potential at the last mile
- Understand the impact of the intervention on CBDs’ FP stock management and dispensing
- Understand the key drivers of the stock management, dispensing, quality service provision, and clinical outcomes associated with the implementation of OpenSRP at the last mile

After securing ethical clearance from ERES Converge in Zambia and the Boston University School of Medicine Institutional Review Board, as well as study approval from Zambia’s Ministry of Health and National Health Research Authority, the MTaPS team completed baseline data collection in PY5 Q1 with a sample of 221 active CBDs at 40 study sites. The MTaPS team conducted physical stock counts at each study site and each CBD to assess stock availability and stock management practices at baseline. The team also conducted phone surveys with 1,139 clients using FP products to determine the level of unmet FP needs and satisfaction with FP counselling. After analyzing the data, a baseline report of the findings was produced, which showed that one-third of sampled clients have reported recent lapses in their FP methods, frequent FP stock-outs at HFs, and generally poor FP stock recordkeeping among CBDs. The development of the workflow management application and the procurement and configuration of the requisite devices and accessories have been completed. Implementation of the intervention started with a two-week training in April 2023 of four cohorts of CBDs (a total of 104 participants; 63 female, 41 male) on using the application.

The team launched the live application in May 2023. CBDs in four districts of Luapula province have been using the application, and the team has been conducting in-person supervisory visits and remote monitoring, resolving any issues that have arisen along the way.

DISABILITY INCLUSION IN THE HEALTH SUPPLY CHAIN WORKFORCE

MTaPS started a study to understand the status of disability inclusion in the health supply chain labor market in LMICs to provide recommendations on strategies for improving inclusive employment practices in the health supply chain. MTaPS formed a TWG to facilitate and guide the study, including identifying key stakeholders and nascent disability inclusion efforts in the various contexts with which TWG members are familiar. The TWG met three times, providing feedback and recommendations on preliminary findings and steps for the study. MTaPS completed a landscape analysis, a global survey on disability inclusion efforts disseminated in English and French to health supply chain stakeholders, and a case study in Ethiopia. A key finding was that although countries are becoming increasingly aware of the importance of disability inclusion in the labor market, no specific efforts for the health supply chain relative to the broader labor market are underway. The number of related policies and guidelines developed may have increased, but implementation, enforcement, and monitoring remain a key challenge.

ENGAGING 3PLS/4PLS TO SUPPORT THE PUBLIC HEALTH SUPPLY CHAIN

In 2022–2023, MTaPS focused on implementation of some of the major recommendations from the first phase of the activity in Nigeria. MTaPS—in close collaboration with the National Products Supply Chain Management Program (NPSCMP), state health supply chain management teams, and development partners—produced an implementation guide, “Operationalizing a Third-Party Logistics Service Provider (3PL) or a Lead Logistics Service Provider (LLP) Supply Chain Model,” that is expected to be incorporated into a larger government document to guide outsourcing of components of the health product logistics services to the private sector. The guide is expected to facilitate the operationalizing of the FMOH’s policy on engaging with private-sector service providers. Kaduna State was chosen for further assessment and technical assistance from MTaPS. Consequently, MTaPS—in collaboration with national- and state-level stakeholders—developed service specifications and a performance management

plan to increase the effectiveness and efficiency of engagement of best practice 3PL and LLPs for outsourcing the distribution of health commodities, including FP products, in Kaduna State. Though the documents focus on Kaduna State, the general approaches can easily be modified to be used in any state for any single element of a supply chain or the entire end-to-end supply chain operations. In addition, MTaPS facilitated two face-to-face advocacy and learning workshops in Nasarawa, Nigeria, involving 38(10 female and 28 male) stakeholders from NPSCMP, the MOH, and state and development partners. The workshops were used to create awareness, strengthen local capacity, and advocate for more effective and efficient leveraging of private-sector capabilities to support public-sector health commodity logistics management. The resources developed for national- and state-level use were also validated during the workshops.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

ACTIVITY 1: EVALUATING THE EFFICACY OF USING A DIGITAL CONSUMPTION TRACKING AND WORKFLOW MANAGEMENT TOOL TO DECREASE UNMET DEMAND AND FOSTER CONTRACEPTIVE CONTINUOUS USE AT LAST-MILE POINT OF CARE

MTaPS collected endline data in October and November of 2023. Data collection included stock assessments at the 40 health facilities and 170 affiliated CBDs in Mansa, Kawambwa, and Samfya. In addition, the team conducted 54 key informant interviews and 1,377 client surveys, with a success rate of 52% based on 2,632 total call attempts. The team has completed audio file transcriptions and begun data cleaning.

The MTaPS team participated in three conferences this quarter and presented the following:

- “Building community health workers’ capacity for service provision and stock management at the last mile: development and implementation of a digital tool” as an oral presentation and “Situational analysis of family planning services availability at the last mile in Luapula Province, Zambia” as a poster at the Global Health Supply Chain Summit held November 14–16, 2023, in Nairobi, Kenya.
- “Predictors of Interruptions in Family Planning Use for Clients in Luapula Province, Zambia” as a poster at the American Public Health Association Meeting held November 12–15, 2023, in Atlanta, Georgia.
- “Building community health workers’ capacity for service provision and stock management at the last mile: A digital tool deployment” as a poster at the 2023 Global Digital Health Forum held December 4–6, 2023, in Washington DC.

MTaPS also had an abstract entitled “Strengthening community health workers’ capacity for stock management and service provision at the last mile” accepted as an oral presentation at the People that Deliver Global Indaba scheduled for March 6–8, 2024, in Bangkok, Thailand.

ACTIVITY 2: DISABILITY INCLUSION IN THE HEALTH SUPPLY CHAIN WORKFORCE

In October 2023, MTaPS submitted the report on the Ethiopia case study findings to USAID. The team subsequently incorporated feedback from USAID’s review and resubmitted the report. The manuscript draft is under development. MTaPS also presented the disability inclusion work as both a poster and an oral presentation entitled “Making the health supply chain workforce inclusive for persons with

disabilities” at the Global Health Supply Chain Summit in Nairobi in November 2023. The work has also been accepted as a poster at the People that Deliver Global Indaba 2024.

ACTIVITY 3: ENGAGING 3PLS/4PLS TO SUPPORT THE PUBLIC HEALTH SUPPLY CHAIN

This quarter, MTaPS finalized the three main deliverables of the activity—service specification, performance management plan, and training report based on a second round of review and feedback. In addition, we have developed a short report that summarizes phase 1 and phase 2 of the activity. The documents are currently under editorial review and finalization. MTaPS, with the objective of posting the resources developed for this activity on the MTaPS website, has begun working on a one-pager on the activity and is preparing a presentation for a USAID CSL Topical Tuesday event. MTaPS also met with the Africa Resource Center (ARC) representative, who stated that there is a Bill and Melinda Gates Foundation activity in Nigeria in the area of strengthening outsourcing of logistics activities, and he shared relevant contact information for the Gates Foundation project director. The team has scheduled a meeting with her for January 2024.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Complete data cleaning and start analysis of the Open SRP study	February 2024
Finalize the draft manuscript on disability inclusion in the supply chain workforce	February 2024
Finalize one-page flyer and the presentation on the Nigeria 3PL/4PL work in preparation for an internal USAID webinar	March 2024
Finalize and share the final versions of the deliverables with the Nigeria teams	March 2024
Meet with ARC Nigeria to further explore areas of collaboration and continuation of the activity	January 2024

E. OFFICE OF HEALTH SYSTEMS, CROSS BUREAU

OVERVIEW

USAID's OHS works across the Bureau for Global Health's programs and is responsible for technical leadership and direction in strengthening health systems, enabling countries to address complex health challenges and protect against extreme poverty. PSS is one of its areas of work. MTaPS uses OHS Cross Bureau funds to demonstrate and advance technical leadership in PSS, in line with the program's overall goal and objectives. Through the Cross Bureau portfolio, MTaPS works to develop evidence-based approaches and tools and identify best practices in PSS that address emerging health problems. MTaPS collaborates with regional and global stakeholders to shape the norms and discourse on pharmaceutical systems and coordinate efforts to identify and promote best practices. The tools and best practices developed or documented by this effort are intended to be adopted and applied at the regional and/or country level in LMICs. Ultimately, Cross Bureau activities aim to identify innovative strategies and tools to advance USAID's technical leadership in PSS and improve equitable access to and appropriate use of medical products and pharmaceutical services, especially for preventing child and maternal deaths; controlling the HIV/AIDS epidemic; and combating infectious diseases, including the COVID-19 pandemic.

CUMULATIVE PERFORMANCE TO DATE

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT AND SERVICES INCREASED, INCLUDING REGULATION OF MEDICAL PRODUCTS

MTaPS has been engaging with AUDA-NEPAD on medical product regulation on the African continent—especially in the wake of the COVID-19 pandemic—and has participated in advocacy initiatives for the creation of the African Medicines Agency (AMA) for improved regulation of medical products in Africa. MTaPS also supported AUDA-NEPAD to conduct a quality review of the AMRH program management guidance tool to streamline regulatory harmonization program implementation and strengthen the impact and sustainability of program results and outcomes. In collaboration with the USAID PQM+ Program, MTaPS developed a set of minimum common standards for regulatory IMS, which the programs validated through a consultative process with key global stakeholders and representatives from national regulatory authorities. MTaPS and PQM+ also developed an advocacy brief and finalized a guidance document to promote and guide adoption of the standards in LMICs. As part of the dissemination strategy, MTaPS and PQM+ have shared the standards and supporting documents with partners, including WHO, USAID Missions, and regulatory networks such as the AMRH IMS technical committee. MTaPS has also been working with the AMRH Secretariat to develop, for AMA's consideration, a continental reliance framework and strategy for digitalization of the regulatory IMS. MTaPS has worked with various AMRH technical committees, such as the African Medical Devices Forum, Evaluation of Medical Products, IMS, and Medicines Policy and Regulatory Reforms, to strengthen and harmonize regulatory systems on the continent.

OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION FOR DECISION MAKING INCREASED AND GLOBAL LEARNING AGENDA ADVANCED

MTaPS has advanced the global PSS learning agenda through several efforts, including launching the PSS 101 and Good Governance courses on the USAID-supported GHeL platform. Through the GHeL, the program issued 6,583 certificates between October 2022 and December 2023 to participants across the globe for completing [PSS 101](#) (1,143 certificates), [Good Governance in the Management of Medicines](#) (803 certificates), [Antimicrobial Resistance \(Part 1\)](#) (3,098 certificates), and [Antimicrobial Resistance \(Part 2\)](#) (1,539 certificates).

Previously, the program conducted two peer-to-peer learning exchanges: one on medical products pricing strategies and the other on preventing and managing conflicts of interest in national pharmaceutical committees. Together, the two learning exchanges engaged approximately 60 government officials from more than 30 countries. MTaPS has submitted more than 130 global conference abstracts and has published 21 peer-reviewed manuscripts since the start of the project.

OBJECTIVE 4: PHARMACEUTICAL-SECTOR FINANCING, INCLUDING RESOURCE ALLOCATION AND USE, OPTIMIZED

MTaPS developed and successfully launched a policy and guideline document entitled “Practical Guide for Systematic Priority Setting and Health Technology Assessment (HTA) Introduction in LMICs” which provides a stepwise approach for HTA implementation. MTaPS has also collaborated with the USAID LHSS project to develop an approach for tracking pharmaceutical expenditure using the SHA2011 framework. The team drafted a pharmaceutical expenditure tracking guide and, following pilots in two countries, developed two policy briefs that will serve as resources for countries to capture population per-capita pharmaceutical expenditure per disease or drug therapeutic class more accurately. The team also published a manuscript entitled “Institutionalizing health technology assessment in Ethiopia: seizing the window of opportunity” in the International Journal of Technology Assessment in Health Care. The paper outlines a problem-driven policy analysis for the formulation, adoption, and implementation of HTA and an evidence-informed priority setting approach in Ethiopia.

OBJECTIVE 5: PHARMACEUTICAL SERVICES, INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE, TO ACHIEVE DESIRED HEALTH OUTCOMES IMPROVED

MTaPS collaborated with the West African Health Organization and the 15 Economic Community of West African States member states to develop and successfully launch a web-based platform for improving PV systems in the region. The platform will allow member states to share PV data and support the strengthening of PV systems in the region. MTaPS also completed a case study in Bangladesh to identify gaps in the integration of IPC/WASH critical conditions into the quality of care and quality improvement tools and processes. In PY5, MTaPS developed a chapter entitled “Institutional and Individual Capacity Building in Pharmacovigilance” for inclusion in a book on PV, which is with the publishers.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

ACTIVITY 3.3.1. DELIVERY OF PSS 101 COURSE

The team finalized plans for the course's virtual offering through USAID University, scheduled for March 18–22, 2024. This will include the newly developed module on combatting AMR. The team also finalized the French translation of the AMR module and started the process of getting both the English and French versions uploaded to the GHeL platform. The GHeL team completed its accessibility review of the module in November and MTaPS started its revisions in December for a planned finalization and integration on the platform in early Q2.

In October, MTaPS completed a round of promotion through social media and professional channels to advertise the availability of PSS courses on the GHeL. The GHeL PSS 101 and Good Governance courses saw 230 and 198 certificates, respectively, earned this quarter. The AMR (Part 1) and AMR (Part 2) courses saw 871 and 414 certificates earned, respectively.

ACTIVITY 3.3.2. MTAPS CLOSEOUT ACTIVITIES

Sub-activity 3.3.2.1: Journal special issue

MTaPS developed a proposal for a special issue in the *Journal of Pharmaceutical Policy and Practice*. The objectives of the special issue are to:

- Clarify fragmented thinking regarding medicines in health systems and urge adoption of a more unified systems thinking approach framed within the concept of a pharmaceutical system (as a subsystem of the broader health system)
- Delineate the components of a pharmaceutical system
- Introduce an approach for measuring PSS
- Share various system-based approaches the program has used to strengthen national pharmaceutical systems
- Contribute to the evidence base on the value of systems strengthening interventions for improved performance and better health outcomes

The editor approved the proposal. The team also identified potential guest editors for the issue and convened the first editorial meeting in October, where participants agreed on the roles of the six editors and the submission and potential publication timeline. The list of target manuscripts has been finalized, and MTaPS has begun drafting the manuscripts with submission anticipated to begin on a rolling basis in March 2024.

Sub-activity 3.3.2.2: Francophone PSS skills exchange

In October, the team held an initial meeting with Francophone technical leads. The team worked with internal technical leads to update the English briefs (developed in PY5), and French translation is underway. Virtual workshop delivery is planned for early April 2024, and presenters for each topic are confirmed.

Sub-activity 3.3.2.3: Collaboration with one global initiative to integrate PSS into its scope

In December, MTaPS attended the [Knowledge Lab for Innovation Community \(KLIC\) 2023](#), a new health system innovation initiative for LMICs designed to inform countries about available innovations and accelerate evidence-based innovation use at the country level. MTaPS participated in the technical preparation and delivery of the interactive KLIC workshop December 5–7, 2023. MTaPS engaged directly with country-level organizations that have a focus and mandate to improve immunization systems and leveraged the program’s PSS learnings across other donors and partners, including GAVI, immunization-focused implementers, and the private sector.

Sub-activity 3.3.2.4: Global event participation

Through the Cross Bureau portfolio, MTaPS coordinated 15 poster and oral presentations at five global meetings and eight abstract submissions to two global meetings. Seven of the nine abstracts submitted last quarter were accepted for the People that Deliver Global Indaba scheduled for March 6–8, 2024, in Bangkok, Thailand. MTaPS also developed a proposal for a side event at the Indaba, which the organizing committee approved. The side event, a close-out event, seeks to engage Indaba participants on the intersection of regulatory systems strengthening and health supply chains, disseminate the various tools and resources we have developed during the program, and advocate for PSS as a critical capacity for the health supply chain workforce.

EXTENDED YEAR 5 ACTIVITIES

ACTIVITY 2.4.6: SUPPORT AUDA-NEPAD IN THE ONGOING CREATION AND OPERATIONALIZATION OF THE AMA

In October, MTaPS presented the final draft of the Continental Reliance Framework to the AMRH Secretariat for review and endorsement. MTaPS received feedback from the AMRH Secretariat and responded to the queries raised. The final draft Continental Reliance Framework will be discussed in the Evaluation of Medicinal Products (EMP) Technical Committee meeting in January 2024. The AMRH Secretariat presented the MTaPS-supported work on the framework development at the Scientific Conference on Medical Products Regulation (SCoMRA) in Egypt in December during a session entitled *Advancing Regulatory Reliance in Africa: Progress, Challenges and the Path Forward*.

MTaPS collaborated with PQM+ to finalize the strategy document for the digitalization of regulatory information management systems for the AMRH Program by addressing feedback from various stakeholders. The draft, entitled *Strategy on Digitalization of the Regulatory Information Management System for African Medicines Regulatory Harmonization Program*, will be submitted to the AMRH Secretariat and USAID for final review before dissemination in Q2. The work was acknowledged at the SCoMRA conference during a session entitled *Digitalization for advancing regulation of medical products in Africa*.

ACTIVITY 3.3.1: MEASURING PSS, INCLUDING ACCESS TO MEDICINE

MTaPS updated the technical report, incorporating feedback from the COR team. The report included the finalized list of indicators for PSS Insight v2.0, country reports of the pilot findings, and associated Performance Indicator Reference Sheets as annexes. The report will be finalized in January 2024 for submission and circulation. Further engagement with WHO is pending the finalization of the technical

report. MTaPS outlined and began drafting the manuscript, with a working draft expected for circulation in January 2024. The team presented a poster on PSS Insight v2.0 at the Global Health Supply Chain Summit in November 2023.

The team also completed the migration of the PSS Insight tool to the MSH internal server and undertook quality assurance checks. MTaPS demonstrated the web-based tool and functionality for the COR team. Procurement for the development of the PSSInsight.org website is ongoing.

ACTIVITY 3.3.4: PSS LEARNING SERIES WEBINARS

The team coordinated with internal technical leads to identify speakers and develop content for the five webinars in the series. The first webinar will focus on the importance of PSS for MNCH and is scheduled for February 1, 2024.

ACTIVITY 3.3.5: HIGH-PERFORMING HEALTH CARE (HPHC) TOOL IMPLEMENTATION

In Bangladesh, MTaPS developed a report and prepared a presentation for a half-day dissemination workshop. The Mission attempted to schedule a meeting to brief the government on the tool implementation and findings, a necessary step in seeking approval to publicly disseminate the findings. However, the process has faced numerous delays because of leadership changes in the relevant directorates and, more recently, national elections.

In Tanzania, MTaPS successfully recruited a consultant to support local tool implementation. The USAID Mission has spearheaded engagement with the President's Office, Regional Administration and Local Government Tanzania (PO-RALG), our entry point for implementing the tool, and the MOH. The team has adapted the protocol for the Tanzanian context and in preparation for ethical review, which is slated for January 2024. The team is tentatively scheduled to meet with PO-RALG and MOH representatives again in January 2024 to finalize plans for data collection.

EXTENDED YEAR 4 ACTIVITIES

ACTIVITY 2.2.1: DEVELOPING A METHODOLOGY FOR ASSESSING THE ROLES OF NATIONAL PHARMACEUTICAL SERVICES UNITS (NPSUS) AND THEIR CAPACITY TO FULFILL THEIR MANDATE

MTaPS drafted the technical report and manuscript on the study, which are under revision. Preparations continued this quarter for a webinar on the importance of NPSUs in achieved UHC as part of the SDGs. The webinar will be part of the PSS learning series of webinars.

ACTIVITY 5.4.1: TESTING BEHAVIORAL NUDGES FOR AMS

In November, the team completed follow-up data collection one-month post-intervention in all five hospitals. Analysis and interpretation of the data continued in December, and a draft of the manuscript is expected for review in February 2024.

BEST PRACTICES/LESSONS LEARNED

- The NPSU study found that regardless of an NPSU's position in the ministry's organizational hierarchy, it is critical that the unit has a legal or administrative framework that gives it the authority to exist and function with an articulated mandate. Furthermore, different units typically perform medicines regulation, procurement and supply chain management, and pharmacy practice regulation, but pharmaceutical policy and governance is somewhat diffused across units.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 3.3.1. DELIVERY OF PSS 101 COURSE <ul style="list-style-type: none"> ▪ Deliver the course via USAID University ▪ Complete integration of the AMR module into the course on the GHeL platform 	March 2024
Sub-activity 3.3.2.1: JOURNAL SPECIAL ISSUE <ul style="list-style-type: none"> ▪ Start manuscript submission 	March 2024
Sub-activity 3.3.2.2: FRANCOPHONE PSS SKILLS EXCHANGE <ul style="list-style-type: none"> ▪ Complete French translation of materials and finalize preparations for workshop delivery in April 2024 	March 2024
Sub-activity 3.3.2.4: GLOBAL EVENT PARTICIPATION <ul style="list-style-type: none"> ▪ Finalize preparations for side event and presentations at the PtD Indaba 	March 2024
Activity 2.4.6: SUPPORT AUDA-NEPAD IN THE ONGOING CREATION AND OPERATIONALIZATION OF THE AMA <ul style="list-style-type: none"> ▪ Discuss reliance framework with the EMP technical committee and finalize for dissemination ▪ Finalize strategy for dissemination 	February 2024 March 2024
Activity 3.3.1: MEASURING PSS, INCLUDING ACCESS TO MEDICINE <ul style="list-style-type: none"> ▪ Complete procurement and start website development ▪ Finalize and circulate PSS Insight v2.0 technical report to COR team and WHO counterparts ▪ Complete manuscript draft for PSS Insight v2.0 	January 2024
Activity 3.3.4: PSS LEARNING SERIES WEBINARS <ul style="list-style-type: none"> ▪ Host MNCH and NPSU webinars and finalize plans for the remaining ones in the series 	March 2024
Activity 3.3.5: HIGH-PERFORMING HEALTH CARE (HPHC) TOOL IMPLEMENTATION <ul style="list-style-type: none"> ▪ Finalize data collection plans and implement the tool in Tanzania 	February 2014
Activity 2.2.1: DEVELOPING A METHODOLOGY FOR ASSESSING THE ROLES OF NATIONAL PHARMACEUTICAL SERVICES UNITS (NPSUS) AND THEIR CAPACITY TO FULFILL THEIR MANDATE <ul style="list-style-type: none"> ▪ Complete technical review and submit manuscript as part of the special journal series 	March 2024
Activity 5.4.1: TESTING BEHAVIORAL NUDGES FOR AMS <ul style="list-style-type: none"> ▪ Complete data analysis and manuscript for submission 	March 2024

F. GENDER

OVERVIEW

The goal of the MTaPS gender core-funded portfolio is to address both the biological (sex) and social differences (gender) that impact equity in pharmaceutical systems. This focus is critical to MTaPS' goal of ensuring sustainable access to and effective use of affordable medicines that are equitable for all sexes and genders. A pharmaceutical system consists of people, resources, processes, and interactions within the broader health system to ensure access to and appropriate use of safe, effective, quality-assured, and affordable medical products and related services to improve health outcomes. Each of these conditions requires that sex and gender be integrated to improve outcomes for all sexes and genders.

These outputs support the broader cross-cutting goal of ensuring that MTaPS' activities are sex- and gender-responsive to promote equitable access to medicines.

CUMULATIVE PERFORMANCE TO DATE

Core-funded gender activities focused on bringing gender to the forefront of MTaPS through the following activities:

In Year 2, the GWG helped to connect those across the different MTaPS portfolios in discussions of gender activities and areas of possible collaboration and learning. In addition, the GWG has been used to discuss and get feedback on document development and utility. Active as needed in Years 2 and 3, the working group was only held as needed in Year 4 due to the concern of line-item funding for participation in this group by other members.

In coordination with the monitoring, evaluation, and learning team, the MTaPS gender advisor provided key inputs and recommendations for useful gender indicators, which resulted in two indicators specifically measuring gender inclusion across the program: number of pharmaceutical sector–related policy, legislation, regulation, or operational documents with gender inclusive language that are developed or updated with technical assistance from MTaPS, and number of gender-related technical guidance documents and other capacity-building products produced by MTaPS. These gender-specific indicators will be used going forward and assist the entire program in measuring progress against these two broad indicators.

Three key capacity building documents and presentations stand out as key successes in Year 2. The first, entitled “A Checklist for Gender Considerations for Pharmaceutical Systems,” was developed in collaboration with LeaderNet, an online learning and exchange platform managed by MSH for global health professionals working to strengthen health systems in low- and middle-income countries. Another key capacity-building document entitled “MTaPS Gender Guide for Work Planning” was developed by the MTaPS gender advisor with inputs from the SMT and disseminated to all program staff to assist their gender inclusion activities into third-year work plans. Last was a presentation entitled “Transforming Health and Pharmaceutical Policies to be Gender Inclusive” given by the MTaPS gender advisor during one of the biweekly MTaPS staff meetings in August 2020. This presentation gave an overview of what a gender-inclusive policy entails across distinct levels within a health system, why it is a critical element of gender mainstreaming, and provided context-specific examples of how gender-

inclusive policies fit across MTaPS' five program objectives. Each of the above key activities built on and increased MTaPS' gender capacity and learning within the program as well as integrated MTaPS gender indicators.

The Year 3 focus for core-funded gender activities was to better define the impacts of not just gender, but also sex, on PSS health outcomes and to find better ways of bringing sex and gender to the forefront of MTaPS. To understand the gaps in understanding of how sex and gender impact PSS, a survey was developed and launched to assess the use and usefulness of the gender integration guide (developed in Year 2) for Year 3 work planning. The survey, developed and led by MTaPS' partner Overseas Strategic Consulting with input from the SMT, was distributed to all staff. In brief, only one-third of respondents had a good understanding of sex and gender considerations in PSS. Important findings of the survey included that the guide was understandable, easy to read, of the right length, and had relevant entry points. However, it was less useful for work planning and training was needed to utilize the guide efficiently. Only one-third of respondents used the guide, and only 25–30% of respondents added sex/gender-specific activities to Year 3 work plans. And, if gender activities were added, they focused largely on “equal” participation and did not consider important sex/gender pharmacodynamics, especially within the GHSA portfolios. A review of approved Year 3 work plans found that 75% did not include any sex/gender activities, and there were many missed opportunities for sex/gender activities. Based on survey findings, it was determined that training was necessary for MTaPS staff on sex/gender considerations in PSS, and practical examples would be helpful for staff to integrate sex/gender into work planning.

Based on survey results—and to address MTaPS staff's lack of understanding of how sex and gender need to be integrated into PSS—the gender advisor started an informational series called the “Gender Gist” blog, geared for field practitioners on sex and gender considerations important to PSS that are tied to MTaPS activities. The Gist includes useful, concise, and practical information for different topics in PSS. Five blog posts were published in Year 3.

- Lawry LL, Creating Sex/Gender-Responsive Health Supply Chains: COVID-19 Reminds Us Again. <https://www.mtapsprogram.org/news-blog/creating-sex-gender-responsive-health-supply-chains-covid-19-reminds-us-again/>
- Lawry LL, The Importance of Being Gender Responsive for COVID-19 Vaccine Introduction: Build It Right or They Won't Come. <https://www.mtapsprogram.org/news-blog/build-it-right-or-they-wont-come-being-gender-responsive-for-covid-19-mass-vaccination/>
- Lawry LL, How Sex and Gender Impact Antimicrobial Resistance Risk. <https://www.mtapsprogram.org/news-blog/how-sex-and-gender-impact-antimicrobial-resistance-risk/>
- Lawry LL. Sex, Gender, and Vaccines: Considerations for COVID-19. <https://www.mtapsprogram.org/news-blog/sex-gender-and-vaccines-considerations-for-covid-19-vaccine-immunity/>
- Lawry LL. We Can Only Fix What We Know About—Why Sex-Disaggregated Data in Pharmaceutical Systems is Crucial. <https://www.mtapsprogram.org/news-blog/we-can-only-fix-what-we-know-about-why-sex-disaggregated-data-in-pharmaceutical-systems-is-crucial/>

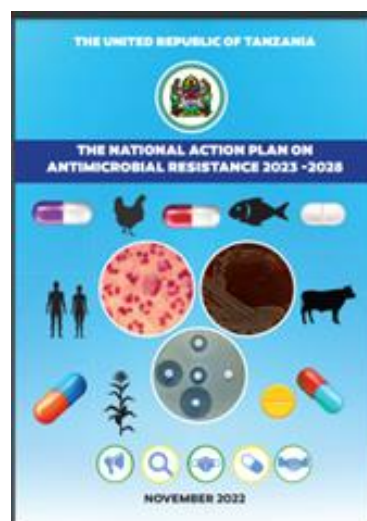
To reinforce the necessity of sex and gender integration in PSS, USAID MTaPS Knowledge Exchange Series and staff meetings presentations were given to the COR and MTaPS staff.

Throughout Year 3, MTaPS' gender advisor identified opportunities for interventions to mitigate sex and gender disparities within pharmaceutical systems and their beneficiaries within technical activities that were country-specific and/or cross-cutting to the project such as for AMS under the GHSA. In addition to the blogs, presentations, and contributions to the journal article, "Point prevalence survey of antibiotic use across 13 hospitals in Uganda," one-on-one meetings were conducted with country teams to educate, mentor, and assist in developing sex and gender activities for Year 4. Finally, technical reviews of the Year 4 work plans for MTaPS countries were conducted and the gender advisor finalized sex and gender indicators in MERL plans with careful review to ensure that sex and gender differences were noted and accounted for in relevant indicators.

The Year 4 focus for the core-funded gender portfolio included country-specific sex and gender activities and continuing the momentum of bringing sex and gender to the forefront of MTaPS through scholarly activity, education, and mentorship. Capitalizing on gains in sex and gender awareness, Year 4 included the development of knowledge products such as IEC materials and e-Learning modules; writing and publishing academic products such as a journal articles to address the need for standardized PSS tools to incorporate sex-disaggregated data; and the development of technical guidance on incorporating sex-disaggregated data and gender considerations as part of AMS interventions and MTaPS-supported MIS. To continue building sex and gender awareness in MTaPS, the gender advisor gave Knowledge Exchange and webinar presentations to staff, the COR, and partners and presented a module in PSS 101 for USAID staff. A panel presentation in support of the GHSA action package on AMR entitled "GHSA-Supported AMR Investments: Results and Lessons Learned in Strengthening Infection Prevention and Control (IPC); Enhancing Inclusion; and Enabling Rapid COVID-19 Response and Future Pandemic Preparedness" was presented at the 2022 Global Health Security Conference in June/July 2022 in Singapore. MTaPS published a Gender Gist blog following the conference to add to the series from previous years. These blogs remain among the top pages viewed on the MTaPS website. At the end of Year 4, due to new requirements of the Philippine DOH, the sex/gender-related e-Learning modules developed in Quarter 3 required additional knowledge checks and pre/post test questions.

In Year 5, MTaPS capitalized on normalizing sex and gender impacts as a cross-cutting issue in program countries and across PSS activities. One of the most important successes for this year is the successful inclusion of sex and gender concepts into Tanzania's National Action Plan on Antimicrobial Resistance 2023–2028.

Tanzania's National Action Plan on Antimicrobial Resistance 2023–2028, which includes sex and gender concepts



The highly successful Gender Gist blog continued, with a blog post published in the first and third quarters:

- Lawry LL. Where the Wild Things Are: Missing the Forest for the Trees. The Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program. October 18, 2022. <https://www.linkedin.com/feed/update/urn:li:activity:6998747695725121536/>
- Lawry LL. I Bang My Head Less Often: Reflections on Integrating Gender in Pharmaceutical Systems Strengthening. The Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program. August 28, 2023. <https://www.mtapsprogram.org/news-blog/i-bang-my-head-less-often-now-reflections-on-integrating-gender-in-pharmaceutical-systems-strengthening/?fbclid=IwARIGHhEdSTaRV4uiY7BOnCHx-pVSFRnb3f-aoa94L5wGZKkin00oCih2bV8>

The year consisted of finalizing/publishing technical documents like the MIS guidance and Philippines workforce development plan written during Quarter 1. Finalizing the animation of the e-Learning modules for the Philippines and using a blended learning approach to provide training on gender to participants from DOH, CHDs and LGUs through webinars and the e-Learning module on DOH Academy will be a key focus for Year 6. The gender advisor worked with Nepal on surveying and educating journalists on sex and gender AMR-specific reporting. The PSS 101 course, as with the previous year, included a sex and gender section for the courses and included participatory exercises to illustrate sex and gender concepts in the small groups. Peer-reviewed publications in Year 5 that included or were solely focused on sex and gender in PSS included the following:

- Lieberman Lawry LL, Konduri N, Gitonga N, Kiggundu R, Mbaye M, Stergachis A. Gaps in data collection for sex and gender must be addressed in point prevalence surveys on antibiotic use. *Frontiers in Antibiotics*. 2023; volume 2. [doi: 10.3389/frabi.2023.1154506](https://doi.org/10.3389/frabi.2023.1154506)
- Waswa JP, Kiggundu R, Konduri N, Kasujja H, Lieberman Lawry LL, Joshi MP. What is the appropriate antimicrobial use surveillance tool at the health facility level for Uganda and other low- and middle-income countries? *Journal of Global AMR*. 2023. [doi: 10.1016/j.jgar.2023.07.003](https://doi.org/10.1016/j.jgar.2023.07.003)

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

During this quarter, the gender advisor reviewed final comments and edits for finalization of the eLearning sex and gender slides for the Philippines Department of Health. The Q4Y5 quarterly/annual report was drafted along with the end of project gender portfolio summary. The gender advisor participated in biweekly staff meetings during this quarter and on the PSS 101 read-out. Plans for close-out of gender activities in the Philippines started during the quarter.

BEST PRACTICES/LESSONS LEARNED

- A typical gender analysis ignores biological differences that matter in pharmaceutical systems; therefore, an adapted gender analysis (really a sex and gender analysis) for PSS should be done during the design of a PSS program to understand the sex and gender dynamics within a community that impact PSS. The results can then be used to make sure the program benefits sex and genders equitably, and any sex and/or gender impacts that might cause negative outcomes are mitigated.

- Sex and gender impacts need to be relevant to pharmacokinetics, pharmacodynamics, and pharmacovigilance with easy-to-understand examples to explain concepts and their importance in programming.
- Repetition is key—frequent discussions and presentations on simple sex and gender concepts need repetition to reinforce how important these concepts are to program activities.
- Multiple modalities for learning need to be incorporated to allow different learners to take up these concepts (blogs, webinars with activities, e-Learning, exercises).

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Finalize the Y6 Q1 quarterly report	January 2024
Finalize the Gender Portfolio Summary	January 2024
Participate in biweekly staff, quarterly technical, and expanded COR meetings	January–March 2024
Participate in the gender and development focal point meeting (Philippines)	January 12, 2024
Participate in the PSS Skill 101 course	March 2024

4. PROGRESS BY COUNTRY

A. BANGLADESH

FIELD SUPPORT ACTIVITIES

OVERVIEW

The goal of the MTaPS Program in Bangladesh is to strengthen pharmaceutical systems to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable medical products and related pharmaceutical services, aligned with the Government of Bangladesh's health objectives and commitment to achieving UHC. MTaPS' overall strategic approach is to support the GOB and its strategic partners to strengthen pharmaceutical services and the supply chain management system.

CUMULATIVE PERFORMANCE TO DATE

In PY1, MTaPS supported the government to develop a long-term procurement strategic plan. In PY2, MTaPS developed the TOE, a prescribed standard of organization, staffing, and equipment of units for health facilities, and updated its reference prices in PY4. The program updated the specifications of the MSR list in PY2 and assisted the MSR List Updating Committee to develop a strategy for regularly reviewing standard reference prices on the updated list in PY3. With TA from MTaPS, the procurement oversight bodies at the MOHFW and the DGHS started implementing a system to monitor procurement performance including standard key performance indicators through quarterly assessments. With MTaPS' assistance, enhanced offline versions of the UIMS and WIMS were incorporated into the eLMIS in PY1 to streamline the functionalities of the two inventory management systems, ensure real-time logistics transactional data, and contribute to better management of supply chain functions.

MTaPS supported FP warehouses to ensure uninterrupted availability of FP commodities, maintaining a stockout rate below 1% at service delivery points (May 2019 to September 2023) and saving financial resources. MTaPS completed scale-up of the eAMS in all 61 DHs countrywide in PY2. MTaPS supported NTP to develop a phased transition plan with options for storage integration following an assessment of the peripheral storage system for TB medicines. A total of 478 (out of 484) peripheral stores located outside of the upazila health complex and managed by the implementing partners are currently integrated in the complexes according to the plan. MTaPS continued assisting the NTP in recording and reporting quality TB data with all 868 TB sites reporting required information paperless to the NTP using the e-TB Manager. In PY3, e-TB Manager was enhanced for electronic reporting of aDSM and interoperability with the Janao app to capture TB data from the private sector. In PY5, the system was enhanced with a dashboard of selected indicators for easier reporting analysis and timely decision making. The transition plan for sustainability of e-TB Manager is being implemented by the NTP. MTaPS, in collaboration with the NTP, rolled out the eLMIS for TB commodities in all 64 districts and all 485 subdistricts (upazilas) across the country.

For improved patient safety, MTaPS supported the evaluation of more than 4,000 AE reports with more than 30 regulatory decisions since PY1.

MTaPS assisted the DGDA to develop an inspection strategy to help ensure good pharmacy practices in PY2 and launched an electronic inspection and licensing system for pharmacies in PY3, in collaboration with the Better Health Bangladesh project. In PY4, MTaPS supported the DGDA in addressing the WHO GBT assessment gaps, including establishing an effective QMS and employing regulatory convergence and good review practices. In PY5, MTaPS assisted with training and dissemination of the DGDA 5-year strategic plan (2022–2026) along with the implementation of the DGDA Regulatory Information Management System (DGDA-RIMS) for online registration of vaccines and biosimilars, and PVIMS for online AE reporting. In PY3, MTaPS supported the DGDA in achieving the highest GBT score for PV function, including development of the good pharmacovigilance practices (GVP) guidelines and updating the national PV guideline endorsed by the MOHFW in PY5.

In support of the implementation of pharmaceutical-related components of the Bangladesh Health Care Financing Strategy (HCFS) (2012–2032), in PY1, MTaPS developed a situational analysis report to identify the potential gaps in the pharmaceutical-related components of the HCFS. This would also propose intervention and areas of collaboration and support in coordination with the MOHFW and other stakeholders. In PY4, the MOHFW’s HEU developed standard processes for pharmaceutical expenditure (PE) tracking, conducted PE tracking for selected MNCH commodities, and customized procedures with training modules in PY5 with MTaPS support.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED



Training on Procurement Management for DGDA Officials, 12–13 October 2023. Photo Credit: Laskar Ikramul Kabir, MTaPS

Activity 1.1.1: Provide technical assistance to the MOHFW and the DGHS to improve procurement functions of different procuring entities.

MTaPS continued support to procurement entities under the MOHFW and the DGHS to review procurement documents and provided technical guidance to use formulated Annual Procurement Plan (APP) templates and assisted implementing the APP approved activities. All procurement entities under DGHS submitted their APP on time and the APP were reviewed and approved by

the Director General Head of Procuring Entity (HOPE), DGHS. MTaPS conducted a two-day training for DGDA officials on the different steps of government procurement management process. MTaPS handed over the training materials to the DGDA for reference and future use. The training materials will help

procurement personnel acquire valuable knowledge, which will allow them to advance their careers and contribute more effectively to procurement activities.

Activity 1.2.1: Assist the DGHS and the CMSD in implementing the comprehensive eLMIS in selected districts as part of the transition plan.

A joint consultative meeting between the CMSD and MIS unit of the DGHS was held to review the status of the DGHS eLMIS used by CMSD with MTaPS technical facilitation. Based on the successful implementation of the eLMIS at the CMSD, the participants of the meeting agreed to expand the system to health facilities at four selected districts considering their performance and accessibility to monitoring and supervision, which will contribute to ensure effective and equitable use of health commodities for quality health care services. Furthermore, the system-generated real-time stock data will help CMSD and DGHS managers make evidence-based decisions, including rational procurement plans and replenishment of supplies during emergencies. This activity was undertaken according to the transition plan jointly developed by the CMSD, MIS, and MTaPS in PY5.

Activity 1.2.2: Assist the DGFP in implementing the DGFP eLMIS in selected MCWCs as part of the transition plan.

Based on a shared concept note from MTaPS, the Director General (DG) of DGFP approved the DGFP eLMIS implementation plan, which includes the demonstration of the online eLMIS functionality at 7 Maternal and Child Welfare Centers (MCWC) within 13 upazilas in 2 selected districts. Following on the successful demonstration of eLMIS, the DGFP will scale up the eLMIS to the remaining MCWCs of other districts with their own resources. A joint consultative meeting among MTaPS, the DGFP's Logistics and Supply (L&S) and other relevant units identified the logistics-related information needed to be captured in the system for the MCWC. Once fully implemented, the system will enable the DGFP to capture real-time logistics and medicine data to enhance evidence-based decision making for equitable availability, distribution, and relocation of FP and MNCH commodities, including micronutrients in health centers, for quality health care service delivery up to the union level, including during emergencies. The L&S unit will take the lead for countrywide scale-up of the DGFP eLMIS, depending on approval of related budget allocation for the next Health Sector Program expected to start in June 2024. This activity was undertaken according to the transition plan jointly developed by the DGFP and MTaPS in PY5.

Activity 1.2.3: Assist the DGHS to roll out eAMS in a selected tertiary-level hospital as part of the transition plan.

The National Institute of Cancer Research & Hospital (NICR&H) was selected by the Hospital Services Management (HSM), DGHS as the tertiary-level pilot for eAMS rollout. A joint visit by HSM DGHS and MTaPS was conducted to the NICR&H to formally introduce the eAMS to the management facility authorities (Director, Deputy Director, and Assistant Directors). To assess the knowledge and current practice regarding asset/equipment management of the NICR&H, a situation analysis will be conducted, and based on the findings, an implementation plan will be developed jointly with the HSM unit and the NICR&H, to establish a smooth implementation and ownership by the government. This quarter, 1 maintenance ticket was raised by the district hospitals and is yet to be resolved. However, from 2016 to 2023, a total of 315 maintenance tickets were raised, and among them, 128 have been resolved. After the recently completed eAMS rollout by the MIS, DGHS at all 429 upazila health complexes (sub-district

level hospitals), 421 (98%) of the complexes started entering assets into the eAMS. As of December 31, 2023, a total of 4,656 assets have been entered into the eAMS by the upazila health complexes. This activity was undertaken according to the transition plan jointly developed by HSM, the MIS of DGHS, and MTaPS in PY5.

Activity 1.2.4: Assist the NTP in ensuring the functioning of the quantification and early warning system (EWS) technical subgroup, as part of the PSM coordination mechanism.

The NTP organized the quarterly meeting on “Quantification and Early Warning System” and prepared quantification and EWS reports. MTaPS assisted the NTP and partners to update the process of quantification and order preparation for first-line, second-line, and TB preventive therapy drugs for the coming years. MTaPS assisted the NTP to form the subgroup on quantification and EWS with the TOR. The subgroup will be able to update the QuanTB tool quarterly by entering data on current stock, actual enrolled cases, and supply planning (pipeline data), as well as use the EWS for decision making to minimize stock disruption and contribute to ensuring sustainable access to lifesaving TB medicines for the population.

Activity 1.3.1: Strengthen the use of the e-Learning courses in collaboration with Aspire to Innovate (a2i) of the Information and Communication Technology (ICT) division.

The Muktopaath platform dashboard needs to be enhanced to provide details on the usage patterns and performance metrics, enabling course providers to make informed decisions and optimize the availability and access to the courses. MTaPS has devised a dashboard concept on e-Learning courses for the Muktopaath Platform and shared it with a2i, aiming to enhance the existing dashboard, focusing on improving data-driven decision making and data usability for the government stakeholders. MTaPS has drafted a comprehensive transition plan aimed at transferring the knowledge required for course maintenance, including administrative access for the courses in Muktopaath platform, to the MIS unit of the DGHS. This strategic partnership ensures that the MIS unit of the DGHS assumes responsibility for maintenance once MTaPS closes out, thereby ensuring the continuity and sustainability of the e-Learning courses.

OBJECTIVE 2: PHARMACEUTICAL REGULATORY SYSTEMS STRENGTHENED

Activity 2.1.1: Assist DGDA to implement CAPA plan and scale-up of the DGDA RIMS and PViMS toward attaining the DGDA’s ML3.

Since May 2023, the DGDA RIMS has received 18 vaccine/biosimilar applications for registration (12 this quarter). DGDA staff and 10 marketing authorization holders (MAHs) (4 this quarter) were trained through a TOT on the system. The DGDA is preparing an annual training plan including the DGDA RIMS, and the pool of trainers will train others. Since May 2023, PViMS has captured a total of 214 (92 male, 117 female, 5 others) AE reports (84 this quarter). Cumulatively, TOT on PViMS have involved 63 MAHs (27 this quarter), 1 hospital (this quarter) and DGDA staff (this quarter). With MTaPS TA, the DGDA addressed GBT requirements, including development of an action plan 2024, drafting and reviewing the GRP guideline, disseminating the Drugs and Cosmetics Act 2023, drafting a competency matrix, developing training modules/materials for both GPVP and national PV guidelines, and preparing DGDA staff as trainers on both guidelines. These efforts aim to increase DGDA’s GBT score toward ML3.

OBJECTIVE 3: SYSTEMS FOR EVIDENCE-BASED DECISION-MAKING INSTITUTIONALIZED

Activity 3.1.1: Assist the NTP in ensuring the functioning of TB eLMIS and e-TB Manager.

All 485 upazila health complexes submitted the indent (100%) for the period of October–December 2023 through the eLMIS for TB commodities and all 64 district health authorities approved the indent as a sign-off from the district. The NTP central warehouse received electronic indents and prepared an issue voucher electronically for all upazila health complexes for the first time ever. The NTP is now able to visualize the stocks, requirements, and supply-related information, thus contributing to an uninterrupted supply of TB commodities in all upazila health complexes. To strengthen supervision and monitoring, MTaPS created central-, division-, and district-level credentials for accessing the TB eLMIS and handed them over to the respective authority in collaboration with the NTP. MTaPS facilitated two NTP-organized full-day orientations on e-TB Manager and TB eLMIS data use and analysis for decision making at Rajbari and Gopalganj districts. Health managers will use their strengthened capacity to contribute to ensuring data quality, generating and submitting quarterly cohort reports on TB case detection, treatment outcome, and sputum conversion electronically through e-TB Manager, and ensuring data export to other systems such as DHIS2.

Activity 3.2.1: Support the transition of MTaPS-developed IT systems to the relevant stakeholders.

In collaboration with GOB stakeholders, MTaPS developed transition plans for the DGDA RIMS, PViMS, DGDA Web Portal, eLMIS (DGHS and DGFP), e-Learning courses, and eAMS for sustainability of the systems. MTaPS maintains ongoing collaboration with government entities related to each MTaPS-developed system, contributing to a smooth transition. MTaPS organized a collaborative meeting with MIS and the CMSD to discuss the expansion of the eLMIS for the DGHS and the subsequent handover of the system to MIS, focusing on the transition process and the long-term sustainability of the system. Both MIS and the CMSD reached a consensus to assume responsibility for the eLMIS on technical support and system operation to enable system maintenance and ensure that it continues to be properly utilized after MTaPS closes out. However, reduced allocation of the budget in the operational plans of the next health sector program might affect the implementation of these plans.

OBJECTIVE 4: NO ACTIVITIES WERE PLANNED FOR THIS OBJECTIVE UNDER THE FIELD SUPPORT WORK PLAN. MTAPS IMPLEMENTED A SEPARATE GHSA WORK PLAN, AND THOSE ACTIVITIES ARE NARRATED IN THE GHSA SECTION.

OBJECTIVE 5: PHARMACEUTICAL FINANCIAL RESOURCE ALLOCATION AND USE OPTIMIZED

Activity 5.1.1: Assist the HEU to increase capability on PE tracking toward institutionalization.

With continued MTaPS advocacy, the HEU managed to include the PE tracking budgetary provision in the government's next Health Sector Program Operational Plan. The plan is an important milestone toward institutionalization of PE tracking to the HEU. A meeting between MTaPS and the HEU was held to discuss the PE capacity-building program to be conducted using a cost-sharing approach, which optimizes the resources in terms of capacity to conduct PE tracking and institutionalization of the same.

BEST PRACTICES/LESSONS LEARNED

- Government proactiveness and ownership contribute to enhance the enrollment in the e-Learning courses developed by implementing partners. For instance, relevant government authorities issued notification for the MTaPS developed three e-Learning courses (Basic Logistics Management, Procurement Basics, and e-TB Manager), which positively impacted the fast-increasing rate of enrollment by government employees and other users.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
<p>Activity 1.1.1: Provide technical assistance to the MOHFW and the DGHS to improve procurement functions of different procuring entities.</p> <ul style="list-style-type: none"> Facilitate technical review of procurement documents; organize electronic government procurement (eGP) training, TOT on basic procurement and orientation on the Procurement Handbook for DGHS stakeholders; assist the Director of Planning and Research on issuing notification to procuring entities to use the checklist and facilitate on-the-job orientation on the checklists to medical officers. 	January–March 2024
<p>Activity 1.2.1: Assist the DGHS and the CMSD in implementing the comprehensive eLMIS in selected districts as part of transition plan.</p> <ul style="list-style-type: none"> Continue visits to selected health facilities to assess the existing practice and develop facility mapping to incorporate inventory management functions in the DGFP eLMIS. Customize the eLMIS according to the mapping and conduct UAT to finalize the system. 	January–March 2024
<p>Activity 1.2.2: Assists the DGFP in implementing the DGFP eLMIS in selected MCWCs as part of the transition plan.</p> <ul style="list-style-type: none"> Continue visits to selected MCWCs to assess the existing practice and develop facility mapping to incorporate inventory management functions in the DGFP eLMIS. Customize the eLMIS according to the mapping and conduct UAT to finalize the system. 	January–March 2024
<p>Activity 1.2.3: Assist the DGHS to roll out eAMS in selected tertiary-level hospital as part of the transition plan.</p> <ul style="list-style-type: none"> Customize the eAMS and its dashboard based on previous assessment and potential new requirements from the rollout; develop/customize training manual and user guide to conduct training for the users, conduct the basic training on eAMS; assist users of tertiary hospital entering data in the eAMS. 	January–March 2024
<p>Activity 1.2.4: Assist the NTP in ensuring the functioning of the quantification and EWS technical subgroup as part of the PSM coordination mechanism.</p> <ul style="list-style-type: none"> Assist the NTP in organizing quarterly subgroup meetings. Organize two-day workshop on annual quantification and EWS. 	January–March 2024
<p>Activity 1.3.1: Strengthen the use of the e-Learning courses in collaboration with a2i of ICT division.</p> <ul style="list-style-type: none"> Continue the collaboration with a2i to obtain the usage data from the Muktopaath platform and strengthen the use of the data for the decision makers. 	January–March 2024
<p>Activity 2.1.1: Assist the DGDA to implement CAPA plan and scale-up of DGDA RIMS and PviMS toward attaining the DGDA's ML3.</p> <ul style="list-style-type: none"> Address implementation feedback for DGDA RIMS and PviMS obtained from DGDA and MAHs, including engagement with local vendor for software customization. Continue guiding the DGDA to address GBT requirements, including evaluation of dossiers submitted to DGDA RIMS and AE in PViMS. 	January–March 2024
<p>Activity 3.1.1: Assist the NTP in ensuring the functioning of TB eLMIS and e-TB Manager.</p> <ul style="list-style-type: none"> Review the use of TB eLMIS and e-TB Manager to identify errors and share the findings with NTP to take action; Hand over the e-TB Manager and TB eLMIS training documents to NTP; Assist NTP on the urban centers' mapping for the TB eLMIS scale-up. 	January–March 2024
<p>Activity 3.2.1: Support the transition of MTaPS-developed IT systems to the relevant stakeholders.</p> <ul style="list-style-type: none"> Work with the MIS to enhance their capacity and agree on the process and resources for transitioning of the systems. 	January–March 2024
<p>Activity 5.1.1: Assist the HEU to increase capability on PE tracking toward institutionalization.</p> <ul style="list-style-type: none"> Update PE training modules and conduct PE training for the HEU facilitated by Research for Development (R4D). 	January–March 2024

Table 2. Quarter 1, FY24, Activity Progress, Bangladesh—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 1.1.1: Provide technical assistance to the MOHFW and the DGHS to improve procurement functions of different procuring entities.</p> <p>Activity description: MTAps will provide technical assistance to the MOHFW and its key directorates to strengthen the pharmaceutical system, including the procurement of health commodities.</p>	1.1	<p>All APPs were reviewed and approved by DG HOPE, DGHS with support from MTAps. Procurement consultant hired and started to work on the procurement guidebook and supporting to the procurement entities.</p> <p>A two-day training on “Procurement Management for DGDA Officials” was held on October 12 and 13, 2023, at the MSH Bangladesh office. A total of 12 participants (all male), including 5 high level officers of DGDA, attended the training program.</p>
<p>Activity 1.2.1: Assist the DGHS and the CMSD in implementing the comprehensive eLMIS in selected districts as part of the transition plan.</p> <p>Activity description: MTAps will provide technical assistance to the MOHFW in initiating the use of the eLMIS in selected districts to ensure the equitable availability of medical products in health facilities for quality service delivery.</p>	1.2	<p>DGHS has selected four districts (Nilphamari, Feni, Gopalganj and Moulvibazar) to implement the compressive eLMIS through a joint consultative meeting.</p>
<p>Activity 1.2.2: Assist the DGFP in implementing the DGFP eLMIS in selected MCWCs as part of the transition plan.</p> <p>Activity description: MTAps will provide technical assistance to the MOHFW in initiating the use of the eLMIS in selected districts to help ensure the equitable availability of FP and MNCH commodities and micronutrients in health centers for quality service delivery.</p>	1.2	<p>DG of DGFP has approved two districts (Nilphamari and Gaibandha) to implement the DGFP eLMIS at their MCWCs. A joint consultative meeting with DGFP officials, led by the L&S unit, was held on December 18 to agree on the background, situation and concept to introduce DGFP eLMIS at the selected MCWCs. The number and location of the MCWCs within the districts will be finalized after the visits and situation analysis.</p> <p>A higher stockout rate of widely used FP commodities was observed (4.6% as of December 2023 compared with 1% from May 2019 to September 2023) up to the service delivery points across the country. This challenge was attributed to suboptimal programmatic intervention of the DGFP and the MOHFW regarding timely procurement of contraceptives (delayed decisions) and budget allocation for transportation and administrative purposes, despite advocacy and continuous situation analysis supported by MTAps. Consensus gathering and common understanding between the government entities on timely procurement can contribute to reducing the stockout rates of FP commodities.</p>

Activity	MTaPS Objective(s)	Activity Progress												
<p>Activity 1.2.3: Assist the DGHS to roll out eAMS in selected tertiary-level hospital as part of the transition plan.</p> <p>Activity description: MTaPS will support the establishment of eAMS in one selected tertiary hospital as a pilot. Based on that experience and lessons learned, the Health Services Division will be able to start rolling out the system to other tertiary hospitals as part of the provisions in the 5th health sector program.</p>	1.2	<p>The NICR&H was confirmed as the designated tertiary-level hospital to pilot the eAMS. Subsequently, an official memo regarding the implementation of eAMS was issued by the Line Director of HSM to the Director of NICR&H.</p> <p>On November 30, 2023, MTaPS facilitated a session on eAMS to 43 staff (9 female and 34 male) members of the MIS/DGHS. The session included an overview of the background and objectives of eAMS, emphasizing its key features, demonstrating how to enter asset details into the system, and steps for submitting asset maintenance requests via the eAMS.</p>												
<p>Activity 1.2.4: Assist the NTP in ensuring the functioning of the quantification and EWS technical subgroup as part of the PSM coordination mechanism.</p> <p>Activity description: MTaPS will provide TA to the PSM unit of the NTP to strengthen the procurement and supply chain management of TB commodities with special focus on quantification and EWS of TB medicines.</p>	1.2	<p>The subgroup meeting on quantification and EWS was held in the NTP on November 6 with the TA of MTaPS. MTaPS assisted NTP and partners to update the process of quantification and order preparation for first-line, second-line, and TB preventive therapy drugs for coming years.</p> <p>Representatives from all the stakeholders including NTP attended the meeting and used Quan TB and eLMIS data for decision making. The following decisions were made:</p> <p>Strengthen forecasting and supply planning exercises of TB medicines by assisting in use of QuanTB and TB eLMIS.</p> <p>Analyze results of the quantification exercises for procurement involving members from partners organization to increase HR capacity.</p> <p>The subgroup can perform timely and efficient quantification of TB medicines and update the QuanTB files quarterly with actual enrolled case, current stock, and supply planning (pipeline data) for early warning.</p>												
<p>Activity 1.3.1: Strengthen the use of the e-Learning courses in collaboration with a2i of ICT division.</p> <p>Activity description: MTaPS will collaborate closely with stakeholders to analyze the data generated by the Muktopaath e-Learning platform for all MTaPS-supported courses to monitor user enrollment trends, course completion rates, and the successful attainment of certificates provided by the platform.</p>	1.3	<p>MTaPS drafted a concept note on dashboard to be customized in the Muktopaath platform.</p> <p>Number of participants enrolled, and certificates obtained for the three e-Learning courses as of December 31, 2023, are shown below:</p> <table border="1"> <thead> <tr> <th>e-Learning Course</th> <th>Participants Enrolled</th> <th>Certificates Obtained</th> </tr> </thead> <tbody> <tr> <td>Basic Logistics Management Training</td> <td>3618 (M-2442, F-1144, Other-32)</td> <td>948(M-621, F-323, Other-4)</td> </tr> <tr> <td>e-TB Manager Basics</td> <td>1039 (M-856, F-178, Other-5)</td> <td>251 (M-222, F-29)</td> </tr> <tr> <td>Procurement Basics</td> <td>1061(M-793, F-257, Other-11)</td> <td>151 (M-130, F-19, Other-2)</td> </tr> </tbody> </table>	e-Learning Course	Participants Enrolled	Certificates Obtained	Basic Logistics Management Training	3618 (M-2442, F-1144, Other-32)	948(M-621, F-323, Other-4)	e-TB Manager Basics	1039 (M-856, F-178, Other-5)	251 (M-222, F-29)	Procurement Basics	1061(M-793, F-257, Other-11)	151 (M-130, F-19, Other-2)
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Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 2.1.1: Assist the DGDA to implement CAPA plan and scale-up of DGDA RIMS and PViMS toward attaining the DGDA’s ML3.</p> <p>Activity description: MTaPS will provide technical guidance and mentoring for the DGDA in implementing outstanding CAPA plan/GBT requirements in national regulatory system, marketing authorization and PV functions, including addressing feedback from the implementation of the DGDA RIMS and PViMS considering their expansion and transition.</p>	2.1 & 2.2	<p>Feedback received from the DGDA and MAHs on the implementation of DGDA RIMS and PViMS are being addressed by MTaPS. To date, the DGDA RIMS received 16 applications of vaccine/biosimilar registration and 10 MAHs received TOT on the system use. To date, the PViMS captured 201 AE reports, and TOT was conducted for representatives of 63 MAHs and 1 hospital. To implement GBT requirements/CAPA plan, MTaPS provided technical guidance as observer to the DGDA in internal audit program (RS05.11), developed an action plan (RS03.03), disseminated the Drugs and Cosmetics Act 2023 (VL01.02), drafted and reviewed GRP guideline (RS03.05), and guided to the draft competency matrix (MA03.02).</p>
<p>Activity 3.1.1: Assist the NTP in ensuring the functioning of TB eLMIS and e-TB Manager.</p> <p>Activity description: MTaPS will assist the NTP to oversee the quality of data and increase their use for decision making.</p>	3.1	<p>On October 17 and 18, MTaPS facilitated 2 separate day-long orientations called “NTP’s electronic recording and reporting tool” on data use and analysis of both e-TB Manager and TB eLMIS for decision making organized by NTP at Rajbari and Gopalganj districts, separately. A total of 33 managers (4 female and 29 male) from 2 districts attended these 2 orientations. The orientation’s goal was to build the capacity of managers on data use and decide on program planning.</p> <p>In collaboration with the ACTB, MTaPS is supporting the NTP for exporting data on selected indicators from e-TB Manager to DHIS2.</p> <p>All Upazila Health Complexes submitted quarterly indents using eLMIS in October–December 2023 after receiving training by MTaPS. As part of the transitioning process of the system, MTaPS created and shared division and district credentials for accessing the system through NTP for the respective authority to strengthen supervision and monitoring of eLMIS for TB commodities.</p> <p>Challenge: NGOs working with NTP have differing TB commodity stock management practices. Damien Foundation, HEED Bangladesh, and smaller implementing NGOs provide TB care services directly from upazila health complexes alongside government staff; therefore, much of the stock remains in the complexes. Bangladesh Rural Advancement Committee (BRAC) operates separate sub-offices and sub-centers, receiving a significant portion of upazila supplies, resulting in consistently depleted stock at upazila health complexes within their implementing areas. This hampers accurate stock representation and reduces government leadership and involvement in delivering TB care at the upazila level.</p>
<p>Activity 3.2.1: Support the transition of MTaPS-developed IT systems to the relevant stakeholders.</p> <p>Activity description: MTaPS will support the respective directorates of the MOHFW in implementing relevant activities stated in the transition plans of MTaPS-developed systems.</p>	3.2	<p>MTaPS engaged in discussions with the MIS, serving as the technical contact and support provider for the DGHS systems, centered around sustainability and the transition plan for the eLMIS and eAMS. MTaPS facilitated a collaborative meeting between MIS and CMSD to agree on the process and resources to further scale up the comprehensive eLMIS for DGHS to four districts. MTaPS drafted nine transitions plans which are under final review for further approval.</p>

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 5.1.1: Assist the HEU to increase capability on PE tracking toward institutionalization.</p> <p>Activity description: MTaPS will capacitate the HEU to conduct quality PE tracking towards institutionalization through training, identifying a pool of champions, and proposing government funding allocation.</p>	5.1	<p>MTaPS and the HEU agreed that the PE training program will follow a cost-sharing approach to reflect government ownership toward institutionalization. MTaPS is in the process of engaging R4D as resource person for facilitation. MTaPS continued advocacy and followed by several meetings with the HEU, PE tracking budgetary provision as “Orientation and Insight Development on Pharmaceutical Expenditure Tracking” was incorporated in the Operational Plan of the government’s next Health Sector Program.</p>

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

As part of Objective 4 of the PY5 country work plan, MTaPS Bangladesh has been providing TA to strengthen ARC by supporting the implementation of the NAP-AMR. The GHSA-related goal of MTaPS Bangladesh is to improve ARC by strengthening the IHR capacity of in-country stakeholders and institutions in three result areas—effective MSC of AMR, IPC, and use of antimicrobial medicine optimized—to help the country progress to the next higher JEE capacity level. In Bangladesh, GHSA activities ended on November 30, 2023.

CUMULATIVE PERFORMANCE TO DATE

In PY2, MTaPS conducted a mapping to assess the implementation status of the NAP-AMR and identified gaps and priorities, facilitated joint stakeholders' meetings, finalized the AMR M&E framework and the indicators for IPC and AMS activity implementation, and extended MTaPS AMR-supported activities from the national to the facility level. MTaPS assisted the CDC to update the National AMR Strategy in PY2, the NAP-AMR in PY3, and costing of the NAP-AMR in PY4. MTaPS also developed the national STG in PY3, the AMS guidelines, National Multisectoral AMS Plan, and STG app in PY4, and field tested and disseminated the STG app in PY5. In PY4, MTaPS provided TA to extend the implementation of IPC and AMS interventions at 9 targeted health facilities. In PY5, MTaPS facilitated another mapping exercise to track the status of activities and indicators in the NAP. The mapping, like that of PY2, engaged stakeholders from all sectors of the quadripartite One Health Partnership. It provided information on partners and stakeholders, interventions, and key IHR benchmark actions completed in each sector with support from partners. MTaPS facilitated the development of the e-Learning course on IPC standard guidelines, translated it into Bangla, and uploaded it onto Muktopaath. As of December 31, 2023, 632 participants (198 female, 432 male, 2 other) successfully completed the course. Additionally, in PY5, MTaPS assisted the CDC and the DGHS in establishing the National IPC Committee (with TOR) as a subunit of the NTC and developed a draft National IPC plan. The combined effect of these interventions is contributing to improving the country's IHR capacity in AMR on the JEE scale.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS (OCTOBER–NOVEMBER 2023)

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Continue to support governance, functionality, and implementation capacity of the national MSC mechanisms.

MTaPS provided logistics support to One Health Bangladesh and the One Health Secretariat in the celebration of the International One Health Day 2023 themed “Connecting Air, Land, and Water.” The celebration was attended by the Secretary, Ministry of Environment, Forest and Climate Change, and representatives from One Health Bangladesh. Speakers and participants at the event highlighted the need to work together under the umbrella of One Health to preserve the global ecosystem to respond to health threats.

The recommendations of the AMR mapping exercise were spread over eight key strategies of the OP of the NAP, specifying the sectors (human/animal/fisheries/environmental) as needed. Some high-level recommendations were as follows: The National Steering Committee (NSC) meeting needs to be held once a year and the CDC should mobilize adequate resources for AMR containment activities, and a special strategy should be taken for creating awareness among the marginalized population. In addition, the CDC needs to coordinate with HSM, upazila health complexes, and community-based health care (CBHC) for the implementation of IPC guidelines at different tiers of facilities. On the other hand, the dissemination of research and survey findings on AMR and strengthening the laboratories should be done by the Institute of Epidemiology, Disease Control and Research (IEDCR). The CDC will also coordinate with DGDA to develop an Essential Antibiotics List and to integrate the list into the AWaRe classification to guide the procurement and distribution of antibiotics in the country. The measures need to be taken to prohibit the use of watch and reserve group antibiotics for human health in animal health.

Sub-activity 1.1.1.4: Support the CDC/DGHS to plan and stage the annual WAAW for 2022 and 2023 as well as the 11th One Health Bangladesh Conference

MTaPS contributed to the observance of the WAAW 2023 with the same theme as the WAAW 2022, “Preventing Antimicrobial Resistance Together,” by performing the following activities:

- Providing TA to the CDC in designing, printing, and distribution of the posters with the theme of WAAW 2023 to over 600 health facilities countrywide according to instructions from the CDC.
- Participating in the DGDA-organized discussion session on AMR. The session was facilitated by WHO with participants from the Chattogram Medical University, Bangabandhu Sheikh Mujib Medical University (BSMMU), IEDCR, Department of Livestock Services (DLS), Department of Fisheries (DOF), WOA, Fleming Fund Country Grant (FFCG), US Pharmacopeia (USP), Better Health Bangladesh (BHB), MTA, CDC, Dhaka University (DU), and Secondary and Higher education sector representatives. MTA used the opportunity to highlight the TA the program has been providing to the government to strengthen AMR interventions. The discussion helped the AMR stakeholders to be updated on the activities performed and plans to minimize overlapping and foster synergism.
- Participating in the CDC-organized workshop to discuss the rising issues of AMR. The workshop was chaired by the Director General of DGHS and attended by the Secretary of the Health Services Division, MOHFW as the chief guest. The discussion informed the workshop attendees on the AMR activities performed by the sectors of human health, fisheries and livestock, and environmental health.
- Attending a seminar on the theme of WAAW organized by the DLS, in collaboration with the WOA. The seminar was attended by the Minister and the Secretary of the Ministry of Fisheries and Livestock as the chief guest and special guest, respectively.

RESULT AREA 2: IPC

Activity 2.1.1: Strengthen IPC governance structures at the national level, including updating of the multi-year IPC national action plan.

The CDC organized a workshop of the National IPC Committee on November 29, 2023, to discuss the draft IPC plan submitted by MTA on November 27, 2023, after incorporating the input from the

October 25 workshop on the plan. Additional feedback was received during the November workshop. MTaPS incorporated this feedback into the plan and the final draft shared with the CDC.

RESULT AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

Activity 3.1.1: Collaborate with CDC/DGHS and the Quality Improvement Secretariat (QIS) to strengthen AMS governance, planning, and implementation at the national level.

The CDC organized a virtual meeting on November 30, 2023, to discuss the prioritized activities from the AMS plan developed by the CDC with MTaPS facilitation in 2022. The prioritization was reviewed by MTaPS and shared with concerned stakeholders of human, livestock, and fisheries ahead of the event. MTaPS incorporated the inputs generated by the discussion into the document and submitted a final draft version to the CDC on December 17, 2023.

Activity 3.5.1: Help strengthen AMS programs at the facility level.



MTaPS Bangladesh team visit focusing sustainability of AMS activities in Munshiganj District Hospital on October 17, 2023. Photo credit: AKM Sirajuddin, MTaPS

MTaPS conducted supervision visits to the nine supported health facilities focusing on the pathway to sustainability, following a coordinated visitation plan with a standard agenda and presentations. The visiting teams did not include government personnel due to the shift in the government’s priority toward the dengue outbreaks happening at the same time. The visits actively engaged the facility authorities and AMS and IPC committees, with a total of 381 participants across facilities (244 male, 137 female) (table 3).

Table 3: Participants in supervision visits to health facilities (focus on the pathway to sustainability)

Facility Name	Date of visit	Participants		
		Mal	Female	Total
Cumilla Medical College Hospital	October 9, 2023	22	11	33

Munshiganj District Hospital	October 17, 2023	26	19	45
Nilphamari District Hospital	October 8, 2023	27	20	47
Jhalokathi District Hospital	October 23, 2023	27	15	42
Sher-E-Bangla Medical College Hospital	October 11, 2023	43	2	45
Jhanaidah District Hospital	October 11, 2023	31	17	48
Narail District Hospital	October 11, 2023	26	21	47
Taraganj Upazila Health Complex	October 9, 2023	23	19	42
Lohagara Upazila Health Complex	October 12, 2023	19	13	32
Total Participants		244	137	381

The health facilities expressed appreciation for MTaPS’ formal visits to inform them about the end of the project’s GHSA support and to discuss the sustainability of the IPC and AMS activities after the program closes out. Key highlights from the visits are listed below:

- The authority and the health service providers committed to continue the monthly committee meetings, planning and reviewing the implementation of IPC and AMS interventions after MTaPS program closes out.
- MTaPS translated the video titled “Don’t let antimicrobial resistance (AMR) take control!” into Bangla. The video was originally developed by the FAO, the Office International des Epizooties (OIE, now known as WOAHA), WHO, United Nations Environment Programme (UNEP) to raise awareness and understanding of the impact of resistance, mode of transmission, and mechanism that makes resistant pathogens more harmful. In response to a request from the MTaPS-supported facilities, a link to the video was shared so the facilities can continue using it for sensitization and orientation of staff and interns on AMR issues.
- The STG app has created interest among the medical practitioners toward compliance with the WHO AWaRe classification. They are using the app as evident from the registration and requested enhancements to make it accessible to Apple users as well.
- The e-Learning course on basic IPC was recognized by the facilities as very important for the capacity building efforts of the health workers, as the course can be taken during their free time, thus minimizing the workload of organizing physical training and the constraint of finding a suitable time slot to fit for all.
- Although cleaners are disposing waste in the respective bins according to recommendations, the final dumping by the municipal authorities does not follow appropriate separation guidelines. This was observed by the cleaners and brought to the attention of the hospital authorities during discussion in the Narail District Hospital. The facility authority committed to discussing and resolving the issue with the municipal authority.
- The Quality Improvement Committee (QIC) is functional at the health facilities and there is streamlined linkage between the QIC and the AMS and IPC committees at all visited facilities.

The health facility authorities requested MTaPS to continue to convey the key issues listed below that cannot be resolved by the respective facilities to the national authorities (CDC and Hospital and Clinics department of DGHS) as MTaPS will continue to work through the field support work plan activities with government departments on issues such as eAMS and PV:

- Inadequate supply of drugs, affecting compliance to AWARe
- Limited or lack of dedicated facility and resources to conduct culture sensitivity testing
- Overcrowding at the facilities during the peak hours of health care services
- Shortage of human resources within the facilities to provide recommended services to implement IPC and AMS
- Insufficient funding allocation and inadequate decentralization for the use of the allocated funds for IPC and AMS activities

BEST PRACTICES/LESSONS LEARNED

- To address the challenge of securing the time of relevant government counterparts to discuss the drafting of the IPC plan and prioritization of activities in the AMS plan MTaPS came to an agreement with the CDC to cost share. Because USAID policy does not allow per diem payments to government officials for activities falling within their regular duties or during regular office hours, it was agreed that CDC would cover per diems, while MTaPS would support logistics for these activities. Through the cost share, over a one-month period, MTaPS and CDC supported two discussions for the IPC plan and one for prioritization of AMS plan activities. This allowed for the two plans to be concluded before MTaPS' GHSA portfolio closed out.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Program activities were concluded in November 2023.

Table 4. Quarter I, FY24, Activity Progress, Bangladesh—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
<p>Activity 1.1.1: Continue to support governance, functionality, and implementation capacity of the national MSC mechanisms.</p> <p>Activity description: In collaboration with One Health Bangladesh and the One Health Secretariat, MTaPS will support celebration of International One Health Day 2023.</p> <p>Sub-activity 1.1.1.4: Support the CDC/DGHS to plan and stage the annual WAAW for 2022 and 2023 as well as the 11th One Health Bangladesh Conference</p> <p>Activity description. In collaboration with CDC, MTaPS will participate in the observance of WAAW 2023 and assisted in designing the WAAW 2023 poster, including its printing and distribution to health facilities and institutions across the country as per government notified distribution list.</p>	4	1.1	<p>On November 5, 2023, MTaPS provided logistics support to One Health Bangladesh and the One Health Secretariat in the celebration of the International One Health Day 2023, themed “Connecting Air, Land, and Water.” The celebration was attended by the Secretary, Ministry of Environment, Forest and Climate Change and representatives from One Health Bangladesh.</p> <p>MTaPS contributed to the observance of WAAW 2023 by providing TA to the CDC in designing, printing, and distribution of the posters with the theme of WAAW to over 600 health facilities countrywide according to instructions from the CDC. MTaPS also attended the WAAW events organized by the DGDA, the CDC and the DLS.</p>
<p>Activity 2.1.1: Strengthen IPC governance structures at the national level, including updating of the multiyear IPC national action plan.</p> <p>Activity description: MTaPS will work with the recently constituted National IPC Committee to draft and finalize a multiyear IPC plan. MTaPS will also collaborate with the CDC in vetting the plan by the core working group (CWG).</p>	4	2.1	<p>The IPC plan was drafted and reviewed by MTaPS. Two workshops of the National IPC committee were held to discuss the draft plan. Input from the workshops were incorporated in the draft and shared with the CDC.</p>
<p>Activity 3.1.1: Collaborate with the CDC/DGHS and the QIS to strengthen AMS governance, planning, and implementation at the national level.</p> <p>Activity description: MTaPS will support prioritization of the activities in the AMS plan, including field testing of the STG app following approved test protocol.</p>	4	3.1	<p>A prioritization of the AMS activities in the multisectoral AMS plan was drafted and reviewed by MTaPS. It was shared with the stakeholders and discussed in a virtual workshop organized by the CDC. The inputs were incorporated, and a final draft submitted to the CDC on December 17, 2023.</p>
<p>Activity 3.5.1: Help strengthen AMS programs at the facility level.</p> <p>Activity description: MTaPS will conduct supervisory visits, including some joint visits with the CDC and the QIS focusing on the pathway to sustainability.</p>	4	3.5	<p>MTaPS conducted supervisory visits to all nine supported health facilities. The CDC and the QIS were not able to join the visits due to competing public health priorities triggered by the Dengue outbreak. The findings, feedback, and agreements with the facilities authorities, committee members, and health care providers to ensure the pathway to sustainability were discussed and properly documented.</p>

B. BURKINA FASO

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of the MTaPS program in Burkina Faso is to support AMR containment by slowing the emergence of resistant pathogens and preventing the spread of resistant infections. AMS is one of the five strategic objectives in the 2015 WHO GAP on AMR, which also strongly emphasizes MSC. To advance its goal, MTaPS is assisting Burkina Faso to make progress toward the next JEE capacity level through activities focused on the MSC and AMS components of AMR in both the human and animal health sectors.

Burkina Faso has a clear strategy in place to ensure the availability of, access to, and appropriate use of quality-assured antimicrobials in the human and animal health sectors. MTaPS' support is focused on structures that ensure the enforcement and compliance monitoring of existing regulations, policies, and guidelines, including the recently updated infectious disease STGs and EML. Such enforcement is needed to address the sale and use of antibiotics without prescription. MTaPS follows a sustained, systematic approach to train, coach, and mentor health workers in both the human and animal sectors to be good stewards of antimicrobials and to monitor their practices. This requires strong central- and facility-level governance and stewardship mechanisms, such as establishing DTCs in more HCFs and capacitating those that already exist to provide supportive supervision in their facilities and promote AMS practices. In fiscal year 2023 (FY23), in addition to activities to strengthen facility-level DTCs, MTaPS is supporting the TS of the OHP (TS-OHP) and the OHP's AMR-TTC to strengthen governance and effective MSC on AMR and to optimize the use of antimicrobial medicines in the human and animal sectors.

CUMULATIVE PERFORMANCE TO DATE

MTaPS supported four meetings of Burkina Faso's RUA subcommission and facilitated the participation of a total of five MOH representatives in a two-part interuniversity diploma course on antibiology and antibiotherapy in sub-Saharan Africa (*Diplôme Interuniversitaire d'Antibiologie et Antibiothérapie en Afrique Subsaharienne*), organized by the University of Nazi Boni in Bobo-Dioulasso, Burkina Faso, in collaboration with the University of Montpellier in France.

In collaboration with the FAO and other partners, MTaPS supported the DGSV in developing guidelines and drafting a ministerial order regulating antimicrobial use in the animal sector. The ministerial order was then submitted to the Minister of Agriculture, Animal Resources, and Fisheries for approval and signature.

Additionally, MTaPS supported the Directorate of Hospital Pharmacy (DPH) in establishing and training DTCs in 10 selected HCFs. A total of 250 DTC members (60 female, 190 male) received AMS training. Each DTC developed an action plan to implement and oversee AMS activities in its respective facility. The DTC members conducted a situational analysis on the causes of inappropriate antibiotic use in their facilities. The results of the situational analysis are being used to strengthen the functioning of DTCs in Burkina Faso. To address the inappropriate use of antibiotics, MTaPS supported the General

Directorate of Access to Health Products (*Direction Général de l'Accès aux Produits de Santé* [DGAP]) and the DPH to develop training modules based on the facility-level infectious disease STGs and trained 350 health professionals (including 158 women) in the 10 selected HCFs. MTaPS also supported the Directorate of Quality and Health Care and DPH in printing and disseminating 500 copies of the STGs.

Aligned with what has been achieved in previous years, MTaPS supported the DGAP, DPH, and *Direction de l'Information Pharmaceutique et de l'Usage Rationnel des Produits de Santé* in conducting supervision visits to 10 MTaPS-supported HCFs to assess the functionality of their respective DTCs. MTaPS also assisted the DGAP in printing 250 copies of the *Guidelines for the Organization and Functioning of DTCs at Hospitals in Burkina Faso*. MTaPS worked with the DPH to conduct quarterly audits of antibiotic use in *Centre hospitalier régional (CHR) de Banfora*.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.2: Provide technical assistance to the AMR-TTC to complete the establishment of and capacitate the AMS subcommittee, including its human, animal, agricultural, and environmental sector TWGs.

On October 6, 2023, MTaPS, in collaboration with the TS-OHP, organized the AMR-TTC semiannual meeting. During the meeting, the AMR-TTC reviewed key achievements for the years 2021 to 2023 and planned activities for 2024. A total of 18 participants, including 4 women, attended the meeting, which took place in Ouagadougou.

On November 30, 2023, as part of the Inter-University Diploma course on antimicrobials entitled “Antibiologie et Antibiothérapie en Afrique Sub-Saharienne,” the University Nazi Boni of Bobo-Dioulasso organized a roundtable with the participation of technical and financial partners engaged in the fight against AMR. The university invited representatives from MTaPS, WHO, the FAO Emergency Centre for Transboundary Animal Diseases, JHPIEGO, the Directorate of Laboratories and Medical Biology, the laboratories of bioMérieux, ICI Santé, the Directorate of Pharmaceutical Information and the Rational Use of Health Products, and the Directorate of Animal Health to attend the workshop and to present their projects or activities to the university students.

MTaPS shared the results and lessons learned from the antibiotic audits conducted at CHR de Banfora, CHR de Koudougou, and CHR de Tenkodogo. The presentation was made to an audience of 67 students to raise awareness on the misuse of antibiotics in HF settings and encourage them to use the knowledge acquired during their training to advocate for a behavior change upon return to their stations of duty. As Figure 2 shows, antibiotics are not being properly used as per the prescribing criteria. This indicates that there is a need to enforce adherence to good prescribing practices in the respective HFs.

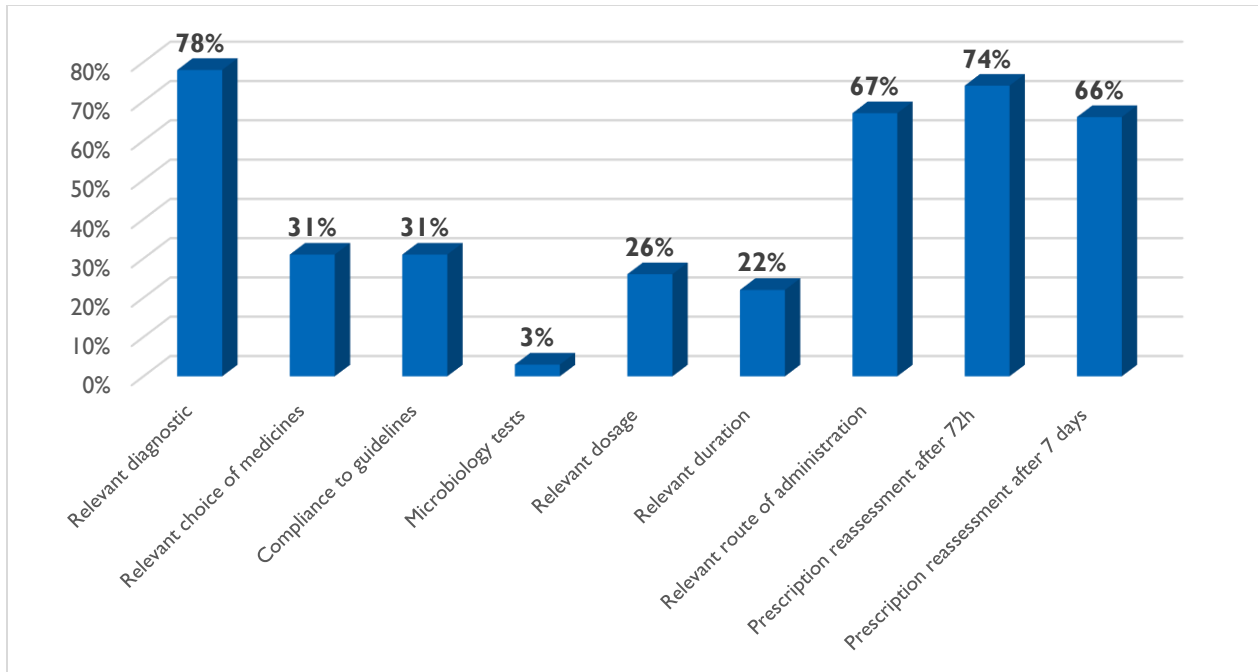


Figure 2. Aggregated results of antibiotic prescription criteria audit at CHR de Banfora, CHR de Koudougou, and CHR de Tenkodogo (percent in line with prescribing criteria)

RESULT AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

Activity 3.2.1: Support the DGSV to disseminate the ministerial order regulating and enforcing the rational use of antimicrobials and to draft a ministerial order on pharmacovigilance in the animal health sector.

On October 12, 2023, MTaPS, in collaboration with the DGSV, organized an official ceremony for handover of the guidelines to regulate rational use of antimicrobials in livestock in Burkina Faso. The ceremony was held at the Ministry of Agriculture, Animal Resources, and Fisheries. Eighteen participants (4 female) from the Ministry of Agriculture, Animal Resources, and Fisheries attended the ceremony.

From November 27 to 28, 2023, MTaPS supported the DGSV in organizing two concurrent workshops in Koudougou and Bobo-Dioulasso. The aim of the workshops was to inform participants on the decree enforcing the rational use of antimicrobials in the animal sector and to disseminate the guidelines regulating the use of antimicrobials within the livestock sector in Burkina Faso. Regional directors from the Ministry of Agriculture, Animal Resources, and Fisheries of Bobo-Dioulasso and Koudougou chaired their respective dissemination workshops. The dissemination covered 8 regions and 28 provinces and was attended by 90 participants, including 7 women. Five hundred copies of guidelines were handed over to livestock technicians for nationwide distribution.

Workshop participants made the following recommendations to the DGSV:

- Sensitize the breeders and the public through audiovisual media and an awareness-raising campaign
- Enforce the application of the decree regulating the rational use of antimicrobials in livestock

- Streamline the distribution channel of medicines in the animal sector
- Build capacity of livestock agents and breeders on good husbandry practices and biosecurity measures
- Equip regional livestock laboratories to carry out antibiotic susceptibility testing,
- Share laboratory pathogen surveillance results with veterinarians, livestock technicians, and breeders.

(PY5) Activity 3.5.1: Support the DPH, AMR-TTC, and DTCs to monitor the implementation of AMS interventions in selected health facilities.

From December 4 to 8, 2023, MTaPS supported the DPH and the regional hospitals of Banfora, Koudougou, and Tenkodogo to organize a workshop in Koudougou. The aim of the workshop was to develop a list of authorized prescribers, define prescribing criteria, and develop a guide regulating visits from pharmaceutical company representatives visiting the facilities to promote their products.

A total of 16 participants (including 1 female) from the Regional Directorate of Health and Public Hygiene of the Centre-West (Koudougou); the Directorate of Hospital Pharmacy and the Directorate of Pharmaceutical Information and Rational Use of Health Products; the regional hospitals of Tenkodogo, Koudougou, and Banfora; and the Regional Teaching Hospital (CHU-R) of Ouahigouya attended the workshop.

Reference documents used for the workshop include the revised 2023 National List of Essential Medicines considering the AWARe categorization, the *Practical Guide to Good Antibiotic Prescribing in Burkina Faso*, the WHO AWARe classification, the 2016 edition of the *Maurice Despinoy Hospital (CHMD) Prescribing Guide*, ministerial order 2017-456/MS/CAB of July 17, 2017 (establishing conditions to exercise the profession of medical sales representative), and ministerial order 2017-458 MS/CAB of July 17, 2017 (establishing conditions for advertising of medicines and other pharmaceutical products).

Following the review of the referenced documents and exchange of experiences, participants drafted and validated the administrative note which restricts the prescription of antibiotics in consideration of AWARe classification. Each regional hospital will proceed with an internal validation and obtain an official endorsement from the Director General of the hospital.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
<p>Activity 1.1.1: Support the functionality of the TS-OHP</p> <ul style="list-style-type: none"> ▪ Support the OHP in organizing a three-day workshop to finalize and validate the drafted interministerial order on the creation, composition, and functioning of the AMR-TTC. ▪ Support the TS in holding the first of two AMR-TTC meetings. ▪ Orient the head of the TS on leadership and management capacity related to multisectoral engagement in AMR and support him in identifying funding sources to implement activities after the MTaPS project closes. 	<p>January–March 2024</p>

<p>Activity 1.1.2: Strengthen the functionality of the AMR-TTC and the RUA subcommission</p> <ul style="list-style-type: none"> ▪ Support the functioning of the AMR-TTC and RUA subcommission in organizing two quarterly RUA subcommission meetings. ▪ Support the TS in organizing the celebration of WAAW. This will consist of jointly supporting the organization of a symposium on AMR with <i>Le Réseau Burkinabè de Recherche et Lutte contre la Résistance Antimicrobienne (RAM-Burkina) et Actions des Jeunes contre la Résistance aux Antimicrobiens (AJRAM)</i>. 	<p>January–March 2024</p>
<p>Activity 3.5.1: Strengthen the capacity of the DPH, AMR-TTC, and DTCs to monitor the implementation of AMS interventions in selected health facilities</p> <ul style="list-style-type: none"> ▪ Support the DPH in developing a formative supervision tool to monitor and provide feedback on antibiotic prescriptions. ▪ Support the DPH in organizing one five-day formative supervision visit to one targeted hospital. ▪ Support the DPH in organizing supervision visits in the nine other MTaPS-supported facilities during their supervision visits. ▪ Support the DPH and the DIPUR in conducting a second PPS of antibiotic use at CRH de Banfora. 	<p>January–March 2024</p>

Table 5. Quarter 1, FY24, Activity Progress, Burkina Faso—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.1.1: Support the functionality of the TS-OHP	5.4	1.1	Not started yet. However, the subactivities are respectively planned for January, February, and March.
Activity 1.1.2: Strengthen the functionality of the AMR-TTC and the RUA subcommission	5.4	1.1	MTaPS supported the participation of five students in the “Antibiologie et Antibiothérapie en Afrique Sub-Saharienne” course.
Activity 3.5.1: Support the DPH, AMR-TTC, and DTCs to monitor the implementation of AMS interventions in selected health facilities	5.4	3.5	Not started yet. However, the subactivities are respectively planned for January, February, and March.

C. CAMEROON

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS in Cameroon is to support AMR containment, slow the emergence of resistant bacteria, and prevent the spread of resistant infections. In Cameroon, MTaPS provides support to strengthen governance for MSC, improve IPC practices and services, and strengthen governance for AMS, including capacity building. Through MTaPS, USAID is supporting Cameroon to make progress toward higher JEE capacity levels in the AMR technical area. Activities in Cameroon fall under MTaPS sub-objective 5.4, and many of them are being implemented in coordination with other partners, especially those funded by USAID and the CDC.

MTaPS uses the OH approach to strengthen the operationalization of AMR governance in Cameroon by supporting the establishment of IPC and AMS TWGs with TOR and the organization of routine coordination meetings of AMR stakeholders to plan, monitor, and evaluate AMR activities. MTaPS is also supporting the operationalization of the OHP through technical assistance to revise the OH strategic policy document.

To ensure accountability, MTaPS supported the government to put a strong governance mechanism in place, starting from the central and regional levels with the appointment of national and regional IPC and AMS focal persons and culminating with the establishment of IPC committees and DTCs with clear TOR and action plans at HFs. MTaPS uses a sustained, systematic approach to train, coach, and mentor health care workers to improve IPC practices and AMS in HFs. MTaPS also supported the development of reference policy documents and tools including the national IPC guidelines, national IPC action plan, IPC training curricula, and the integrated national AMS action plan. MTaPS is also supporting the MOPH to establish a surveillance system to monitor HCAI in HFs as well as to strengthen compliance of health workers with IPC guidelines, including those for hand hygiene.

CUMULATIVE PERFORMANCE TO DATE

MTaPS' GHSA work in Cameroon is guided by the WHO JEE benchmark actions for IPC, AMS, and MSC. As of September 2023, MTaPS has supported the achievement of 37 (60%) of the 62 total WHO benchmark actions.

Since MTaPS began its work in Cameroon in 2019, the program has supported MSC on AMR through contributing to the organization of 19 routine meetings of the TS of the AMS MCC, the AMS and IPC TWGs, and other OHP members and partners to monitor the implementation of AMR activities. MTaPS supported the organization of a coordination meeting between the TS-MCC and the OHP to strengthen linkages between these two bodies and to advocate for officially creating the MCC. MTaPS also supported a workshop for OHP stakeholders to review the regulatory framework of the OHP, as well as a workshop to review and finalize Cameroon's NAP-AMR. Additionally, MTaPS supported the celebration of AMR-related events—including WAAW, a conference of the Society of Cameroonian

Microbiologists, and World Hand Hygiene Day—to strengthen the technical capacity of key government stakeholders and health care providers.

MTaPS supported a baseline assessment of IPC practices in 38 HFs, the development of IPC training curricula, the establishment of IPC committees in 12 HFs, the development of the national IPC guidelines and action plan, the training of 174 health staff (79 female, 95 male) in IPC, CQI of IPC practices in 12 HFs, and the development of a national surveillance protocol to monitor HCAs. MTAps also supported the Directorate of Health Promotion (DPS) to evaluate key surveillance attributes and some performance indicators of the HCAI surveillance system.

With technical assistance from MTAps, IPC committees became more autonomous, implemented self-initiated IPC activities, and continued to implement a CQI approach with incremental self-improvement targets to ensure effective activity progress. MTAps supported the DPS to evaluate selected surveillance attributes and performance indicators of the HCAI surveillance system in the CQI process. MTAps assisted the IPC committees via the DPS to carry out a cross-sectional KAP survey of health care workers on hand hygiene in MTAps-supported HFs, using the adapted WHO tools to improve compliance of health staff on hand hygiene. MTAps also supported the DPS to carry out follow-up assessments of IPC program core components at the national and HF levels, using the WHO IPCAT2 and IPCAF tools, respectively, to identify the areas still requiring action and update the national and facility IPC action plans.

MTaPS supported the DPML to carry out a situational analysis of AMS-related policies in the animal and human health sectors to develop a national integrated AMS action plan, to establish DTCs in 12 HFs, to train 239 health care providers (134 female, 105 male) in AMS, to conduct CQI of AMS activities in supported HFs, and to classify antibiotics in Cameroon’s national essential medicines list according to the WHO AWaRe categorization.

MTaPS supported the TS-MCC, OHP, and other relevant technical departments of the MOPH to develop a NAP-AMR monitoring framework to monitor and track implementation progress of the plan across different health sectors. MTAps also partnered with IDDS and AFROHUN to develop course content for a master’s degree program in infectious diseases and AMR at the University of Buea and to establish a Moodle e-learning platform on the university’s website to facilitate blended learning.

Under the leadership of the DPML, MTAps continued to support DTCs to take ownership over the implementation of their own AMS programs. MTAps supported the DTCs to implement self-initiated AMS activities and continue to implement a CQI approach with incremental self-improvement targets.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.2.1: Help improve institutionalization, ownership, and uptake of AMR-related e-learning courses through multisectoral efforts

In December 2023, MTAps supported the Bafoussam Reference Hospital Center (BRHC) to organize activities marking the celebration of WAAW. The sensitization activities were organized in three sessions: the first session was for health care workers and interns and consisted of PowerPoint

presentations on the drivers of AMR; the second session was for patients and visitors of the BRHC and consisted of educational talks on how the excessive and inappropriate use of antibiotics impacts the development of antibiotic resistance; and the last session was for key community informants and included open discussion of key messages for the sensitization of communities. Some of the key messages for the community included avoiding self-medication and instead going to the nearest health facility when sick. During all three sessions, sensitization materials (flyers, t-shirts, and hats) were distributed to the participants. The 3 sessions reached a total of 72 participants (42 female). MTaPS also seized this opportunity to raise participants' awareness about the online courses on AMR-related topics on e-learning platforms hosted by the DPML and the University of Buea.



Group photo with BRHC staff. Photo credit: MTaPS



Sensitization of population and patients at BRHC. Photo credit: MTaPS

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINE OPTIMIZED

Activity 3.1.1: Support the Directorate of the Fight against Disease, Epidemics, and Pandemics (DLMEP) and DPML to develop/update and disseminate national stewardship and clinical/treatment guidelines that include the AWaRe categorization for antibiotics integrated into the NEML last year

MTaPS supported the development and finalization of TORs and an SOW for the recruitment of a national consultant to support the development of draft infectious diseases STGs based on Cameroon's previously developed list of antibiotics according to the WHO AWaRe categorization.

Activity 3.5.1: Support the governance and functionality of DTCs to implement AMS programs and actions, including monitoring of antimicrobial use and other interventions to improve antimicrobial use at designated health facilities (PY5)

MTaPS supported the DPML to organize a two-day workshop from October 6 to 7, 2023, for 24 participants from the 12 MTaPS-supported health facilities so they could report on the implementation of the self-initiated AMS activities proposed in their facility DTCs' action plans. During this session, the DTCs presented the results of their activities, including findings from a mini survey on antibiotic consumption. These mini surveys focused mainly on antibiotic consumption, the evaluation of infectious disease management, the evaluation of prophylactic management of Caesarean section cases, and the evaluation of therapeutic patient education on their treatment. The findings from the mini-survey on

antibiotic consumption showed that the availability of all antibiotics included in the national AWARe categorization is low in these health facilities (although over 80% of the antibiotics available were from the Access category); therapeutic protocols for the most common infectious diseases are generally respected; around 51% of patients know the routes of administration; and 33% know the frequency of medication intake and the duration of treatment.

BEST PRACTICES/LESSONS LEARNED

- Sensitization activities at the health facility level to commemorate WAAW reached more clinicians with direct responsibility to stop the inappropriate prescription of antibiotics, compared to previous years when WAAW activities were organized at the central level of the health system.

ACTIVITIES & EVENTS FOR NEXT QUARTER

Activity & Description	Date
<p>Activity 1.1.1: Support the TS-MCC and the OHP to institutionalize regular review of the status of NAP-AMR implementation using the monitoring framework</p> <p>Activity description: MTaPS will support the TS-MCC and the OHP to organize two-day meetings to evaluate the implementation status of the NAP-AMR using the NAP-AMR monitoring framework.</p>	January 2024
<p>Activity 1.2.1: Help improve institutionalization, ownership, and uptake of AMR-related e-learning courses through multisectoral efforts</p> <p>Activity description: MTaPS will support the University of Buea to organize an open house to commemorate WAAW and sensitize the public on the availability of the continuous professional development e-learning courses on the university website.</p>	January 2024
<p>Activity 2.5.1: Further strengthen the governance, functionality, and capacity of IPC committees to implement self-initiated IPC activities through CQI-based and institutionalized actions</p> <p>Activity description: MTaPS will support the DPS to organize onsite supervision of IPC committees. MTaPS will support DPS to lead and organize four two-day meetings for IPC committees, one meeting in each of the four MTaPS-supported regions.</p>	February-March 2024
<p>Activity 3.1.1: Support the DLMEP and DPML to develop/update and disseminate national stewardship and clinical/treatment guidelines that include the AWARe categorization for antibiotics integrated into the NEML last year</p> <p>Activity description: MTaPS will support the DLMEP, the Directorate for the Organization of Health Care and Technology, and the DPML to hire a consultant for eight weeks to develop draft STGs based on Cameroon’s previously developed list of antibiotics according to the AWARe categorization. MTaPS will support the DLMEP to organize a four-day workshop with relevant experts in the field to review the draft STGs.</p>	January-March 2024

Table 6. Quarter 1, FY24, Activity Progress, Cameroon—GHS

Activity	MTaPS Objective(s)	GHS Result(s)	Activity Progress
<p>Activity 1.2.1: Help improve institutionalization, ownership, and uptake of AMR-related e-learning courses through multisectoral efforts</p> <p>Activity description: MTAaPS supported the BRHC to organize a one-day activity to celebrate WAAW.</p>	5.4.5	1.2	MTaPS supported the BRHC to organize a one-day activity to celebrate WAAW through the sensitization of participants on AMR topics and raising awareness of online courses on AMR-related topics on the e-learning platforms hosted by the DPML and the University of Buea. MTAaPS will continue to support the University of Buea to organize a one-day open house event to sensitize the public on AMR.
<p>Activity 3.1.1: Support the DLMEP and DPML to develop/update and disseminate national stewardship and clinical/treatment guidelines that include the AWaRe categorization for antibiotics integrated into the NEML last year</p> <p>Activity description: MTAaPS supported the development of consultant TORs to recruit an eight-week consultancy to develop draft STGs based on Cameroon’s previously developed list of antibiotics according to the AWaRe categorization.</p>	5.4.6	3.1	MTaPS developed and finalized TORs for the recruitment of a national consultant to support the development of draft STGs based on Cameroon’s previously developed list of antibiotics according to the WHO AWaRe categorization.

PRESIDENT'S MALARIA INITIATIVE (PMI)

The PMI work plan for year 6 was approved in November 2023. Two activities are included in this work plan:

- **Activity 1.4.1:** Support the development of continuous professional development training curricula, including e-learning modules in supply chain management
- **Activity 2.1.1:** Support the MOPH to implement OpenRIMS for the electronic submission and evaluation of pharmaceutical products registration applications

This quarter was marked by the preparation and planning of activities and the drafting of TOR for the recruitment of consultants.

D. CÔTE D'IVOIRE

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS in Côte d'Ivoire is to support sustained AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. MTaPS is supporting strategic objectives 4 (reduce incidence of infections through effective sanitation, hygiene, and prevention measures) and 5 (improve RUA in human and animal health and environmental sectors) of the Côte d'Ivoire NAP-AMR. IPC and AMS are two of the strategic objectives in the 2015 WHO Global Action Plan on AMR and in Côte d'Ivoire's NAP-AMR, and both documents strongly emphasize MSC. MTaPS has been providing technical support to consolidate MSC on AMR, in addition to supporting the IPC and AMS technical areas, with direct technical assistance to the national AMR TWG and relevant ministries. Planned activities for FY23 were built on the work done during the previous four years of the program, including supporting the government of Côte d'Ivoire to strengthen the governance of IPC committees, improve IPC practices, conduct AMS practices in health facilities, and develop and implement systems to monitor antimicrobial use and consumption nationally and at health facilities.

CUMULATIVE PERFORMANCE TO DATE

MTaPS' support to the government of Côte d'Ivoire to strengthen AMR containment is guided by WHO IHR benchmark actions. MTaPS aims to help the country move up to the next JEE tool level across the three result areas. As of September 2023, MTaPS has supported the completion of 41 WHO benchmark actions—12 contributing to MSC/AMR, 18 to IPC, and 11 to AMS with 4 benchmark actions in progress.

Since MTaPS' inception in September 2018, Côte d'Ivoire has successfully established an MSC mechanism for zoonotic diseases and a TS and TWGs to monitor AMR activities. MTaPS assessed IPC practices and AMS regulations and then supported the development of IPC guidelines and an AMS action plan. Through a decree in April 2019, the Ivorian government formalized the OHP to institutionalize a national MSC mechanism to address public health threats, including AMR. MTaPS supported the country to establish an AMR TWG to monitor AMR activities. This TWG is connected to the OHP through a national coordinating body called the MSC Group (or MCG). MTaPS helped to finalize the TOR and guidance manual for this body and its subcommittees. In collaboration with WHO, USAID, the US CDC, and FAO, MTaPS supported the AMR TWG, Multisectoral Technical Committee 4 (MTC4, also known as the IPC TWG), and Multisectoral Technical Committee 5 (MTC5, also known as the AMS TWG) to develop and validate more than 15 reference documents, including the AMR governance manual, national AMR policy, 2019–2020 multisectoral NAP-AMR, national IPC plan, animal-sector IPC guidelines, and the national AMS policy, guidelines, and plan. MTaPS also supported the AMS MTC to develop the AMR M&E plan and the AMR operational advocacy plan and to update the inter-ministerial decree officially establishing DTCs in Côte d'Ivoire.

MTaPS supported a situational analysis of the capacity and functionality of ICCs and DTCs in 4 university teaching hospitals, 12 regional hospitals, and 4 private clinics in the human health sector, as well as in the veterinary clinic of the Ministry of Animal Resources and Fisheries' Regional Directorate of Bouaké and

in the Antirabic Center of Cocody in the animal health sector. MTaPS facilitated the development and validation of documents and training modules in IPC and AMS, training of HCPs, and the establishment of a CQI process in 20 HFs. Supported ICCs and DTCs are now functional, with clear TOR and capacity building plans. MTaPS also supported the AMS TWG to develop and finalize a list of antibiotics based on the AWaRe classification. The IPC TWG and the AMS TWG identified and selected three MTaPS-supported facilities as COEs for IPC and AMS activities. MTaPS assisted the AMR TWG for the deployment of the AMR 2021–2025 M&E system, through the development of an AMR 2021–2025 M&E plan, data collection tools, and the training of MTC M&E focal points in the use of these data collection tools. Additionally, MTaPS supported the development of e-learning modules for training on IPC and AMS and assisted the AMR TWG to establish a regional pool of AMR trainers, including 18 master trainers and 36 regional AMR trainers.

MTaPS supported the AMR TWG to establish three COEs for IPC and AMS activities. These health facilities were selected as COEs because they scored high on the IPCAF and DTC evaluations. MTaPS supported the AMR TWG to validate the decree governing the functioning of drug committees and to finalize the AWaRe categorization of antibiotics.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

Through the AMR TWG, MTaPS supported the OHP to organize activities for One Health Day and WAAW, which took place in mid-November 2023. MTaPS' support for the AMR TWG, MTC4, and MTC5 resulted in an updated AMR TWG governance manual, as well as training for 106 people (18 female), in IPCAF-minimum requirements (MR) tools and routine data collection tools to improve data quality. This support also enabled 62 people (7 female), to be trained in the use of drug committee evaluation tools and AMS routine data collection tools. As part of strengthening the AMR TWG's M&E system, MTaPS provided support to the AMR TWG through MTC5 and MTC4 for the digitization of these data collection tools. The support provided by MTaPS for MSC in the fight against AMR and for optimizing the use of antimicrobial agents in human health contributed to achievement of a score of 3 for both MSC and AMS on the December 2023 JEE (ver. 3) assessment.

RESULTS AREA I: EFFECTIVE MSC OF AMR

Activity 1.1.1: Enhance capacity of MCG to monitor implementation of the approved NAP-AMR

On November 18, 2023, MTaPS supported the OHP through the AMR TWG to organize activities for One Health Day and WAAW. The 2023 National AMR Week was marked by an official government declaration, which was read out by the Minister of Animal and Fisheries Resources on Friday, November 17, 2023, and broadcasted in the media. MTaPS supported the organization of the launch ceremony of AMR Week. The theme of the week was "Together, Let's Prevent Antimicrobial Resistance." The event was chaired by the Minister of Animal Resources and Fisheries. A panel discussion on the "Strategies for Combating Antimicrobial Resistance in Healthcare Settings in the Different Sectors, in the Context of One Health in Côte d'Ivoire" theme raised participants' awareness of the dangers of AMR and the inappropriate use of antimicrobials.

Also, from November 29 to December 1, 2023, MTaPS supported the AMR TWG in organizing a workshop to revise the governance manual for the fight against AMR in Côte d'Ivoire. Its aim was to

provide the AMR TWG with a governance manual adapted to the current AMR control system in Côte d'Ivoire. The workshop was attended by 13 participants (9 male, 4 female). This workshop led to a change in the status of the MCG, which is no longer a member body of the AMR TWG but rather a consultative body that collaborates with the AMR TWG board in the fight against AMR. The body was also critical in establishing an AMR TWG board with monthly meetings for the monitoring of activities.

From December 4 to 8, 2023, MTaPS provided support for the JEE (ver. 3.0) evaluation of Côte d'Ivoire. According to the WHO-led evaluation, the support provided by MTaPS for MSC in the fight against AMR and for optimizing the use of antimicrobial agents in human health helped the country achieve a score of 3. At the IPC level, the support provided by MTaPS for the implementation of the IPC programs helped the country achieve a score of 2.

Activity 1.2.1: Support the AMR TWG to use e-learning platforms to scale up training on AMR/AMS/IPC for health professionals

MTaPS supported the Directorate of Pharmaceutical Activities (DAP) to finalize the IPC and AMS modules onto the e-learning platform. The DAP shared the access link with MTaPS for a final review and approval. MTaPS technical teams carried out their reviews and forwarded their observations to the DAP for finalization of the modules. Once the modules were finalized, they were uploaded onto the platform. Currently, the platform is not yet operational. A meeting with the DAP is scheduled for January 2024 for a final review of MTaPS recommendations.

RESULTS AREA 2: IPC

Activity 2.1.1: Support the AMR TWG to strengthen the IPC program at national and facility levels

In October 2023, MTaPS supported the MTC4 in organizing an orientation workshop for MTC4 members on JEE 3.0 indicators and WHO minimum requirements for IPC programs. The workshop aimed to build the capacity of MTC4 members on JEE 3.0 indicators and WHO minimum requirements for IPC programs. A total of 16 people (6 female) including 2 facilitators, took part in the workshop. The facilitators presented the IHR JEE 3.0, the IPCAF-MR evaluation tool for secondary and tertiary levels. MTaPS supported the MTC4 to extend the training to regional IPC focal points, hospital directors, and health facilities' IPC members. A total of 46 participants (6 female) including 6 facilitators, took part. The training also covered the use of digitized versions of the IPCAF-MR tools from the Kobocollect platform.

MTaPS also assisted the IPC committees of the 20 supported facilities to carry out self-assessments. This was the first time that the WHO IPCAF-MR tool was used for self-assessments. None of the health facilities achieved the highest possible score of 100% on the IPCAF-MR tool. Out of 20 health centers supported by MTaPS, 5 scored over 70%: Centre Hospitalier Universitaire (CHU) de Bouaké (78%), CHU d'Angré (76%), Centre Hospitalier Regional (CHR) de Man (78%), and Clinique Grand Center de Yopougon (93%). Five health centers scored below 50%: CHU de Cocody (37%), Polyclinique Centrale d'Abobo (39%), CHR de Bondoukou (38%), CHR de San Pédro (28%), and CHR de Daloa (45%) (figure 3).

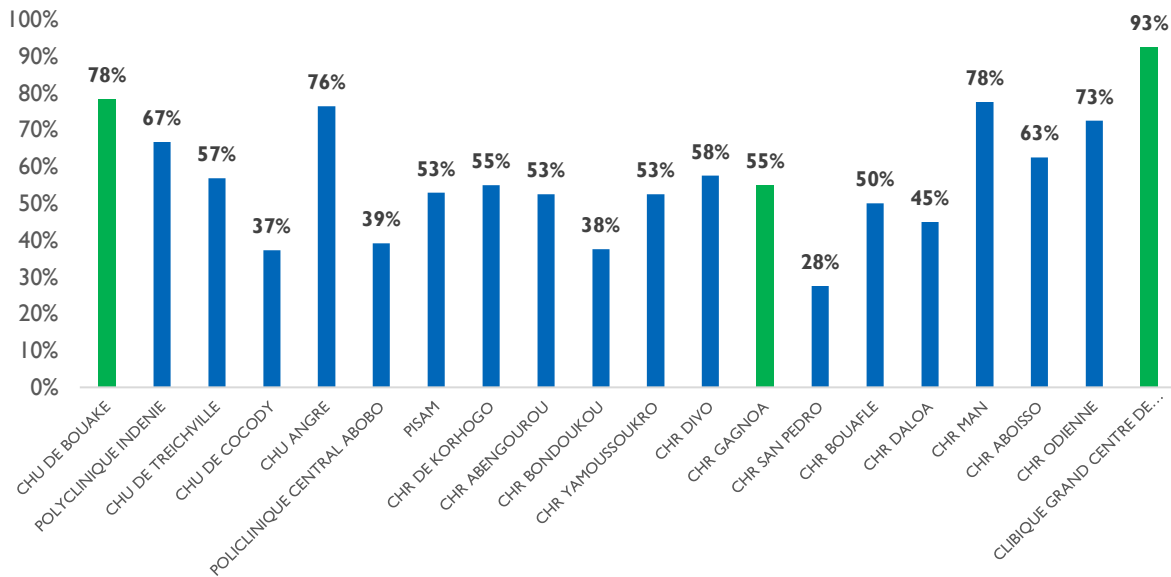


Figure 3: IPCAF-MR health facilities self-evaluation results

Activity 2.1.2: Support the AMR TWG to train the IPC and AMS focal points and IPC committee and DTC members to disseminate and use the data collection tools for monitoring IPC and AMS activities

From November 19 to 25, MTaPS supported the MTC5 and MTC4 to train 20 IPC focal points and 20 AMS focal points from MTaPS-supported facilities in the use of quarterly activity reporting tools. Further, three hospital directors joined in on the workshop. A total of 43 people (7 female) took part in the workshop, including 3 facilitators. The aim of this training was to build the capacity of IPC and AMS committees’ members to collect routine data for IPC and AMS activities using Kobocollect, a digitalized version of the IPC and AMS committee activity report developed in March 2023.

RESULTS AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

Activity 3.1.1: Support the AMR TWG to strengthen AMS program at the national level

On December 20, 2023, MTaPS supported the MTC5 in organizing a training session on WHO evaluation tools and the drug committee supervision grid. This training targeted DTC members from the 20 health care establishments supported by MTaPS. The aim of the training was to build the capacity of members of the 20 DTCs supported by MTaPS in the use of AMS data collection tools. A total of 22 participants (3 female) attended the workshop. Facilitators trained participants on the use of the WHO DTC assessment tool, the DTC supervision grid, and their digitized versions. Facilitators also presented data collection and transmission methods. As a follow-up, in March 2024, MTaPS will conduct a supervision visit and a data quality assessment in all health facilities.

MTaPS also helped the AMR TWG organize a meeting to prepare for the evaluation of the national AMS program. Six participants from MTC5, the AMR secretariat and MTaPS attended the meeting, including two women. The meeting participants drafted the TOR and agreed on a provisional date for conducting

the evaluation and the TOR for the quarterly supervision. The meeting was also an opportunity to review the 2022 data collected on consumption and resistance profiles for the Global AMR and Use Surveillance System.

Activity 3.5.1: Support the AMR TWG to establish and improve a governance and oversight system for AMS in health facilities, including monitoring the implementation of related policies, guidelines, and standards

MTaPS supported the AMS MTC to hold two meetings in October with five participants, two from the AMR secretariat and three from MTAps. These meetings were held to finalize the protocol for the PPS and discuss a source of funding for this activity. MTAps, BioMerieux, and the national health insurance fund agreed to share the cost of producing the PPS. The AMR secretariat will mobilize additional funds needed to conduct the survey.

BEST PRACTICES/LESSONS LEARNED

- Digitization of IPCAF-MR evaluation tools greatly improves the transmission of data retrieved from self-assessments and reports from health facilities to the central level. The use of tablets or mobile phones to carry out IPCAF-MR assessments is an innovation for IPC committee members at health care facilities, as it facilitates immediate transmission of data, meaning that evaluation results are available in real time. This makes it easier for the central level to monitor facilities.
- Holding routine results-sharing meetings that cover data analysis and providing participants from health facilities with the opportunity to enter missing data during the meetings have improved the completeness of data transmitted by health facilities to the central level.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Enhance capacity of MCG to monitor implementation of the approved NAP-AMR: Support to MTCs to address gaps during the implementation of AMR-related activities and provide technical support as needed to continue monitoring the implementation of the new NAP-AMR and progress toward WHO benchmark actions for the next capacity level	February 2024
Activity 1.2.1: Support the AMR TWG to use e-learning platforms to scale up training on AMS and IPC for health professionals: Support 30 participants from each of the 20 MTAps-supported health facilities to take e-learning courses	January 2024
Activity 1.2.2: Support the AMR TWG to share lessons learned and experiences in the implementation of the NAP-AMR (PY5 activity to be carried over into PY6): Support the AMR TWG in organizing a five-day lessons learned and experience sharing workshop	March 2024
Activity 2.1.1: Support the AMR TWG and the MTC4 to consolidate and institutionalize IPC programs at the national and facility levels: <ul style="list-style-type: none"> ▪ Support the AMR TWG and the MTC4 to conduct locally led second assessments of the national IPC program using the WHO IPCAF-MR tool ▪ Support IPC regional trainers and IPC regional focal points to conduct locally led semiannual IPC assessments using the aforementioned WHO assessment tool 	January 2024 February 2024
Activity 2.5.1: Strengthen the functionality of IPC committees in the human health sector and the capacity of health care providers to implement guidelines using multimodal strategies: Support the regional focal points and IPC regional trainers to supervise the IPC committees' members of the 20 MTAps-supported facilities	March 2024

Activity and Description	Date
Activity 3.1.1: Support the AMR TWG and its MTC5 to strengthen AMS program at the national level: Support the MTC5 to self-assess their own capacity with oversight from AMR TWG and in collaboration with other partners, using the WHO tool for national-level AMS capacity assessment	January 2024
Activity 3.5.1: Support the AMR TWG and its MTC5 to establish and improve a governance and oversight system for AMS in health facilities, including monitoring the implementation of related policies, guidelines, and standards: Support the DTCs of the three COEs to share their experiences and lessons learned from the effort in establishing COEs	February 2024

Table 7. Quarter 1, FY24, Activity Progress, Côte d'Ivoire—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)
<p>Activity 1.1.1: Enhance capacity of MCG to monitor implementation of the approved NAP-AMR</p> <p>Activity description: MTaPS supported the OHP through the AMR TWG to organize activities for One Health Day and WAAW.</p> <p>MTaPS supported the AMR TWG in organizing a workshop to revise the governance manual for the fight against AMR in Côte d'Ivoire.</p>	5.4	1.1	<p>MTaPS continued to provide technical assistance and focus on continuing to coach the AMR national focal point to align the NAP-AMR with the JEE 3.0 results and lead the quarterly monitoring meetings to update and regularly evaluate the monitoring of the NAP-AMR implementation, in coordination with the OHP. MTaPS coached the MTCs to address gaps during the implementation of AMR-related activities and provided technical support as needed to continue monitoring the implementation of the new NAP-AMR and progress toward WHO benchmark actions for the next capacity level. MTaPS helped the AMR MCG to update the AMR governance manual. MTaPS continued to support the OHP to organize activities for One Health Day and WAAW.</p>
<p>Activity 1.2.1: Support the AMR TWG to use e-learning platforms to scale up training on AMR/AMS/IPC for health professionals</p> <p>Activity description: MTaPS supported the DAP to finalize the IPC and AMS modules onto their e-learning platform.</p>	5.4	1.2	<p>MTaPS, in collaboration with One Health Workforce—Next Generation AMR TW; and personnel from the Directorate of Training and Research, training schools for health professionals, the National Pharmacist Association and other professional associations, and the National Institute of Training of Health Agents supported the implementation of continuing professional development through an in-service IPC training course for the National Pharmacist Association and nurses' and midwives' association members.</p> <p>MTaPS supported these collaborating entities to manage and administer the e-learning platform once MTaPS has ended. IPC and AMS modules were finalized and uploaded.</p>
<p>Activity 2.1.1: Support the AMR TWG to strengthen the IPC program at the national and facility levels</p> <p>Activity description: MTaPS supported MTC4 in organizing an orientation workshop for MTC4 members on JEE 3.0 indicators and WHO minimum requirements for IPC programs.</p> <p>MTaPS then supported MTC4 in organizing two training sessions for regional IPC focal points, hospital directors, and IPC members of health facilities.</p> <p>MTaPS also supported the IPC committee for health care facilities in carrying out self-assessments.</p>	5.4	2.1	<p>MTaPS organized an orientation workshop for MTC4 members on JEE 3.0 (focusing on IPC and AMR technical areas) and WHO minimum IPC requirements at national level. The 1-day workshop was held in Abidjan and was attended by 16 participants. Following this workshop, MTaPS supported MTC4 in organizing 2 2-day orientation workshops for 12 regional IPC focal points, 20 IPC committee leaders, and 20 health facility directors. These 2-day workshops were mainly facilitated by trained MTC4 members, helping to further strengthen local leadership, ownership, and skills. MTaPS supported the IPC focal points and IPC committees in the 20 health facilities supported in carrying out IPC self-assessments using the WHO IPCAF-MR for primary health care facilities.</p>
<p>Activity 2.1.2: Support the AMR TWG to train the IPC and AMS focal points and IPC committee and DTC members to disseminate and use the data collection tools for monitoring IPC and AMS activities</p> <p>Activity description: MTaPS supported MTC5 and MTC4 to train 20 IPC focal points and 20 AMS focal points from MTaPS-</p>	5.4	2.1	<p>MTaPS continued to support the AMR TWG to deploy data collection tools in the 20 supported health facilities. These tools measure the IPC and DTC activities in health facilities. MTaPS supported the AMR TWG to organize a training workshop for the IPC committees' and DTCs' leads on the use of those data collection tools. A total of 20 IPC focal points and 20 AMS focal points were trained in routine data collection tools for IPC and AMS activities at health center level.</p>

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)
supported facilities in the use of quarterly activity reporting tools.			
<p>Activity 3.1.I: Support the AMR TWG to strengthen AMS program at the national level</p> <p>Activity description: MTaPS supported MTC5 in organizing a training session on WHO evaluation tools and the drug committee supervision grid. This training targeted DTC members from the 20 health care establishments supported by MTaPS. MTaPS also helped the AMR TWG organize a meeting to prepare for the evaluation of the national AMS program.</p>	5.4	3.1	<p>MTaPS has helped MTC5 to assess its own capacity under the supervision of the AMR TWG and in collaboration with other partners, using the WHO tool for assessing AMS capacity at national level. They then identify their gaps, difficulties, and challenges and define and prioritize workable solutions at local level for immediate, short-term, medium-term, and longer-term action. This autonomous assessment and identification of solutions will strengthen the committees' skills for future iterative assessments, contributing to the institutionalization and sustainability of the process.</p> <p>A total of 20 DTC members have been trained in the WHO DTC assessment tools and the DTC supervision grid so that they can conduct self-assessments in their health centers.</p>
<p>Activity 3.5.I: Support the AMR TWG to establish and improve a governance and oversight system for AMS in health facilities, including monitoring the implementation of related policies, guidelines, and standards</p> <p>Activity description: MTaPS supported the AMS MTC to hold two meetings on October 20 and October 25 with five participants (two from the AMR secretariat and three from MTaPS) to finalize the protocol for the PPS and discuss funding for this activity.</p>	5.4	3.5	<p>MTaPS supported the DTCs of the three COEs to share their experiences and lessons learned from the effort in establishing COEs. The DTCs of the COEs monitored and provided feedback on antibiotic consumption and use in the facility. The DTCs also conducted sensitization meetings with prescribers about good prescription practices. In collaboration with the AMR TWG and MTC5, MTaPS will provide the 17 remaining facilities with a minimum AMS action package. MTaPS supported the MTC5 to develop the MTC5 protocol and data collection tools for the PPS.</p>

E. DRC

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The goal of MTaPS' AMR work in DRC is to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. To achieve this goal, MTaPS works to build the capacity of in-country stakeholders through a system-strengthening approach. The MTaPS GHSA portfolio is focused on three GHSA-specific result areas—MSC on AMR strengthened, IPC improved, and AMS improved.

The strategic approach and actions are focused on supporting the critical path to achieving higher capacity levels as outlined in the JEE tool and the WHO benchmarks for IHR capacities. In DRC, the goal of achieving good patient outcomes will be met using multidisciplinary and multisectoral collaboration to improve MSC, IPC, and AMS. MTaPS' strategy is to base its activities and implementation on guidance from WHO benchmarks and the JEE tool while relying on other published guidance on best practices; to collaborate with the appropriate partners at the global, regional, and country levels; and to combine planning and implementation with an embedded monitoring and knowledge-sharing element to capture, document, and disseminate experiences and results. Through MTaPS, USAID is contributing to DRC's attainment of higher WHO IHR capacity levels in AMR and IPC technical areas.

CUMULATIVE PERFORMANCE TO DATE

Since MTaPS began its implementation in DRC in 2019, the program has supported DRC in making significant progress in the fight against AMR. This progress has included the establishment of an NC-AMR and the development of a NAP-AMR. MTaPS supported the NC-AMR in establishing three thematic TWGs (or subcommittees) for IPC, the rational use of antimicrobials, and AMR detection and surveillance. MTaPS supported the NC-AMR and the related TWGs to implement the NAP-AMR and achieve progress in the MSC, AMS, and IPC technical areas. As a pilot, MTaPS supported the establishment of 12 DTCs in 5 provinces to oversee AMS interventions at the HF level and to promote the rational and appropriate use of medicines, including antimicrobials, to prevent AMR. To this end, MTaPS supported DTCs in implementing AMS CQI activities by iteratively collecting antibiotic prescription patterns and determining patients' knowledge on antibiotic prescriptions, as part of a CQI effort. MTaPS collaborated with WHO to support the National Pharmaceutical Regulatory Authority (ACOREP) in revising the NEML and integrating the WHO AWaRe categorization of antibiotics into the revised version. In collaboration with WHO, MTaPS supported ACOREP in conducting a national survey on the aggregate consumption of antimicrobials in DRC using the atomical, therapeutic, chemical/defined daily dose model. The survey revealed that at least 70% of antibacterial medicines consumed were in the WHO access category, which is above the WHO's recommended minimum of 60%. In collaboration with WHO and FAO, MTaPS supported the Directorate of Animal Disease Control (*Direction de Lutte contre les Maladies Animales* [DLMA]) in conducting IPC assessments in the animal health sector. Using an adapted IPCAF tool, the DLMA, ACOREP, and the MOH's Directorate of Hygiene (*Direction d'Hygiène*)

carried out the assessment at four farms and four animal health clinics. Based on the results obtained, each facility developed an improvement plan to reduce HCAs and inappropriate AMU. MTaPS also supported the Directorate of Hygiene in using the WHO IPCAT2 to assess hygiene conditions in the human health sector at the central level and to develop an improvement plan, which is currently being implemented. Finally, MTaPS supported ACOREP, in collaboration with the *Cliniques Universitaires de Kinshasa*, *Cliniques Universitaires de Kisangani*, *Hôpital Saint Joseph*, INRB, *Département de Pharmacologie Clinique et Thérapeutique* of the University of Kinshasa, and *Département de Soins de Santé*, in developing the National Guidelines for the Use of Antibiotics in Healthcare Facilities and Services in the Democratic Republic of the Congo, which will serve as the country's standard guidelines for the appropriate use of antibiotics and take into consideration the WHO AWaRe categorization of antibiotics.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

RESULT AREA I: EFFECTIVE MSC OF AMR

Activity 1.1.1: Provide support to the NC-AMR and the related TWGs (AMS and IPC) to take leadership over the effective monitoring and planning of AMR activities.

From October 19 to 20, 2023, MTaPS supported ACOREP and the NC-AMR to organize their second quarterly MSC meeting for the fight against AMR. A variety of points were discussed, and participants made (among others) the following recommendations:

- Facilitate the signing of the decree to officially operationalize the NC-AMR. Meeting participants recommended that ACOREP collaborate with the PATH project, which supports the DRC government's Universal Health Coverage program to resubmit the decree to the cabinet of the Minister of Health's department for legal affairs related to the implementation of IHR.
- Given the high number of recommendations not implemented, participants decided to create a commission to support the secretariat to expedite the implementation of recommendations resulting from the meetings of the NC-AMR.
- ACOREP should organize a meeting with stakeholders to update the NAP-AMR.
- Update the mapping of stakeholders in the fight against AMR.
- Revitalize the different subcommittees in consideration of the leadership qualities and availability of each member.
- Expedite the implementation of recommendations from the JEE internal evaluation and prepare to expedite recommendations from the upcoming official JEE in DRC in October 2023.

In October 2023, WHO organized the JEE in DRC. Given its key role supporting ACOREP and the NC-AMR in the fight against AMR, MTaPS provided technical support to the government during this evaluation.

On November 22, 2023, MTaPS supported One Health coordination to organize ceremonies celebrating World One Health Day. A total of 119 participants took part in this celebration, and speakers from various sectors presented on One Health topics, including the USAID local mission GHSA focal point, focusing on global health security, the One Health approach, and environmental risks in the DRC, as well as the *Programme National de l'Hygiène aux Frontières* (PNHF), focusing on International Regulation

Systems and the One Health approach. This celebration was an opportunity for MTaPS to present its major achievements supporting the Congolese government in the fight against AMR.

On November 30, MTaPS, in collaboration with WHO and FAO, supported the NC-AMR and the faculties of Medicine and Pharmacy of the University of Kinshasa to organize the DRC's celebration of WAAW. This support included organizing workshops to raise awareness and to sensitize more than 400 students, as well as scientific and administrative staff on the risks presented by AMR. Organizers encouraged all participants to unite in the fight against AMR and use antibiotics only as necessary and when prescribed by qualified health personnel. The theme of WAAW for 2023 remained "Preventing antimicrobial resistance together," as it was in 2022.



WAAW workshop in DRC. Photo credit: Bony Muya, MTaPS

Issues discussed during this forum included the following:

- The "Antibiotic Apocalypse"
- Misuse of antibiotics in the treatment of malaria
- Rational use of antibiotics, challenges, and perspectives
- Salmonella resistance
- Resistance to antimalarials, case of Artemether Lumefantrine
- Molecular mechanism of AMR
- Fighting AMR together: resistance in animal health

Activity 1.2.2: Develop and disseminate information, education, and communication materials related to AMR containment through the establishment of an e-Learning platform to continuously train and update NC-AMR members and professionals.

In December 2023, MTaPS organized a technical meeting with the heads of the Department of Clinical and Therapeutic Pharmacology of the Faculties of Medicine and Pharmaceutical Sciences to discuss the establishment of an e-Learning platform, including the place where the equipment should be installed, the types of equipment needed, its installation, the training of users, and the maintenance of the hardware and software parts of the platform. During the meeting, participants developed the terms of reference and the budget for implementation of this activity.

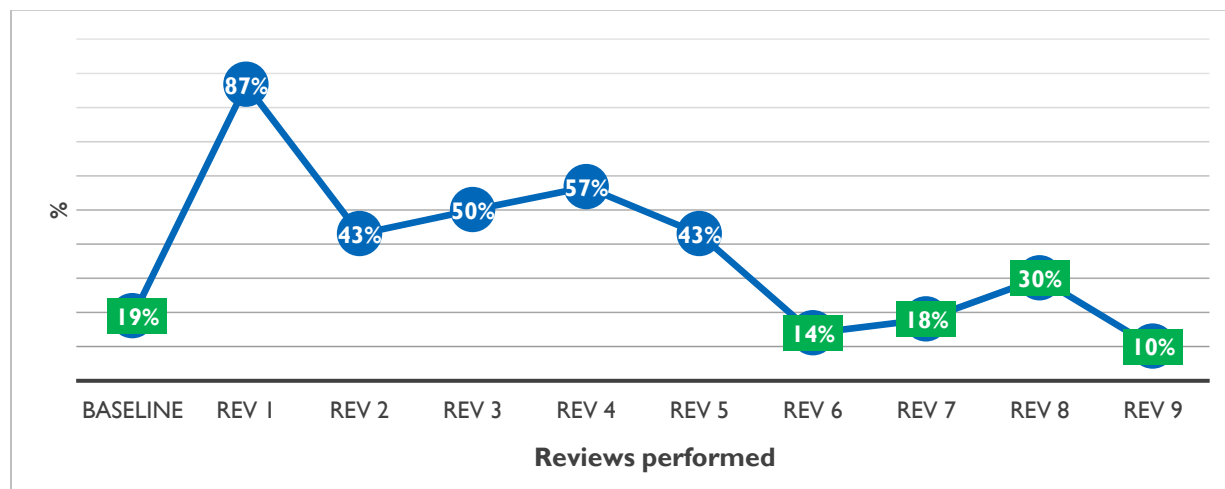
RESULT AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

Activity 3.5.1: Strengthen and institutionalize DTCs to oversee the implementation of AMS interventions and conduct stewardship practices at their respective facilities.

During this quarter, MTaPS collaborated with DPS of Nord Kivu and Ituri to support the DTCs in Goma (Kyeshero and Heal Africa) and in Bunia (HGR Bunia and CME Bunia) to conduct data collection for CQI review activities.

Findings from the CQI reviews conducted at Kyeshero and Heal Africa Hospitals from November 27 to December 6, 2023, are highlighted below.

- Percentage of prescriptions with antibiotics (WHO norm for this indicator: < 30%)**
 At Heal Africa Hospital, the percentage of prescriptions with antibiotics remained within acceptable limits from the sixth review to the most recent ninth review as shown in figure 4.



Green values = within WHO recommendations

Figure 4: Percentage of prescriptions with antibiotics from CQI reviews, Kyeshero and Heal Africa Hospitals

- Patients’ knowledge of medicines**
 At Heal Africa hospital, the most recent review shows that patients’ knowledge of prescribed medicines has progressed since the baseline and now conforms with WHO recommendations. Moreover, the overall trends reflect the efforts of DTC members to ensure patients’ adherence to treatment and the impact of routine meetings within the hospital to remind both prescribers and dispensers of the importance of the rational use of medicines.

MTaPS supported DTCs at HGR Bunia and CME Bunia to conduct CQI reviews from December 1 to 7, 2023. Key findings are presented below:

- HGR Bunia maintained relatively stable performance; for 2.26 medications prescribed per medical prescription (WHO standard: 2.5), 98.5% of products were prescribed under generic names (WHO standard: >90%), 0% of injectable products were prescribed (WHO <10%), and 100% of products appeared on the NEML (WHO standard: 100%). There was also a slight drop in the percentage of antibiotics prescribed per medical prescription, which was 31.8% (WHO standard: <30%). The DTC at HGR Bunia performed well in AMS activities to promote rational use of medicines and contain AMR.
- For CME Nyakunde, 2.6 was the average number of medications prescribed per medical prescription, 27% of prescriptions contained an antibiotic, and 6% of prescriptions contained at least one injectable. The other indicators of rational prescribing remained low, and data collectors made recommendations for their improvement in the coming quarters.

BEST PRACTICES/LESSONS LEARNED

- Through close collaboration with stakeholders, MTaPS can build understanding of the importance of certain activities to achieve joint GHSA goals. For example, MTaPS' collaboration with AMR stakeholders, including academic staff and technicians with experience setting up e-Learning platforms, allowed the project to share knowledge and experiences and helped the stakeholders better understand how setting up an e-Learning platform with a road map to support its establishment and functionality can contribute to the fight against AMR.
- It is important to take action to ensure that required documentation is available, officially signed and up-to-date before any assessment or audit. For example, the preliminary results of the latest JEE assessment conducted in October 2023 showed a lower score than the self-assessment conducted in March 2023 because the NAP-AMR was out of date and the ministerial decrees establishing the NC-AMR were not officially signed. To resolve this, ACOREP and other stakeholders have systemized their collaborative efforts to obtain the Minister of Health's signature for the decrees establishing the NC-AMR as well as to update the NAP-AMR.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.2.1: Support the NC-AMR in conducting joint MSC field support supervision visits in the human, animal, and environmental sectors, and use the supervision findings to conduct the annual Tripartite AMR Country Self-Assessment Survey (TrACSS).	January–March 2024
Activity 1.2.2: Develop and disseminate information, education, and communication materials related to AMR containment through the establishment of an e-Learning platform to continuously train and update NC-AMR members and professionals.	January–March 2024
Activity 2.1.1: Support the NC-AMR to institutionalize the regular assessment of IPC practices, including implementing guidelines and regulations in both the animal and human health sectors.	January–March 2024
Activity 3.5.1: Strengthen and institutionalize DTCs to oversee the implementation of AMS interventions and conduct stewardship practices at their respective facilities.	January–March 2024
Activity 3.5.2: Disseminate national stewardship and clinical/treatment guidelines that include the WHO AWaRe categorization of antibiotics.	January–March 2024

Table 8. Quarter I, FY24, Activity Progress, DRC—GHSA

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 1.1.1: Provide support to the NC-AMR and the related TWGs (AMS and IPC) to take leadership over the effective monitoring and planning of AMR activities.</p>	<p>N/A</p>	<p>MTaPS supported NC-AMR to organize three activities, including one quarterly meeting, the One Health World Day, and the WAAW in DRC.</p>
<p>Activity 1.2.2: Develop and disseminate information, education, and communication materials related to AMR containment through the establishment of an e-Learning platform to continuously train and update NC-AMR members and professionals.</p>	<p>N/A</p>	<p>MTaPS met with stakeholders to assess needs, develop terms of reference and budget to establish the e-Learning platform.</p>
<p>Activity 3.5.1: Strengthen and institutionalize DTCs to oversee the implementation of AMS interventions and conduct stewardship practices at their respective facilities.</p>	<p>N/A</p>	<p>MTaPS worked in collaboration with ACOREP, DPSs, and hospitals to strengthen DTCs in their missions of ensuring AMS activities through CQI and regular meetings.</p>

F. ETHIOPIA

OVERVIEW

Ethiopia is one of the countries selected to implement AMR prevention and containment interventions through funding from the GHSA. The goal of MTaPS Ethiopia's GHSA portfolio is to build the capacity of government stakeholders to effectively combat the development and spread of AMR. MTaPS provided targeted technical assistance to Ethiopian stakeholder institutions in three result areas of the AMR action package: effective MSC, IPC, and optimizing use of antimicrobial medicines through effective implementation of AMS programs. These interventions are meant to support the country on its pathway toward improving its JEE scores to meet the priorities of the GHSA, compared with the baseline JEE done in 2016, where the country scored limited capacity level 2 for both the IPC and AMS components.

CUMULATIVE PERFORMANCE TO DATE

MTaPS Ethiopia has worked in close collaboration with the MOH and RHBs to implement priority actions of the WHO Benchmarks for IHR capacities on MSC, AMS, and IPC. In the area of MSC, MTaPS' support contributed to the completion of 100% of capacity level 2, 3, and 4 actions. MTaPS supported the revision of the NAP-AMR, establishment of an AMR unit within the MOH, and development and official launch of sector-specific action plans for the human health, animal health, and environment sectors. To strengthen the operational capacity of the NAMRAC, MTaPS facilitated its restructuring, including updating its membership to ensure broader stakeholder participation, revision of its TOR, and development of TORs for its IPC and AMS TWGs. MTaPS also engaged various civil society organizations, including the women's federation, youth federations, and the Ethiopian Pharmaceutical Association (EPA) for AMR awareness and sensitization forums.

MTaPS supported the practical implementation of AMS interventions at selected hospitals and the revision of the NEML, AMS practice guide, and national STG for general hospitals based on the WHO AWaRe categorization of antibiotics for the first time in Ethiopia. MTaPS' support also contributed to improving AMS by completing 100% of capacity level 2, 67% of level 3, and 29% of level 4 and 5 benchmark actions. To strengthen AMS and IPC practices, MTaPS supported the revision of the AMS practical guide and implementation of quality improvement (QI) programs at 8 hospitals with a focus on optimizing use of antimicrobials for surgical prophylaxis and improving HH practices. MTaPS also supported the development of e-modules to improve accessibility of AMS and IPC training to health workers.

To strengthen country capacity in IPC and emergency response to COVID-19, MTaPS supported the revision of the IPC reference manual and IPC training materials. MTaPS also supported the MOH in identification of gaps in the national IPC program using the WHO's national IPCAT2, provided technical support to HFs to improve their IPC performance using the WHO IPCAF tool, and supported the design of IPC improvement plans for the central and facility levels. MTaPS contributed to the development of guidance documents for the HAI surveillance system and the establishment of IPC COEs. MTaPS also supported the MOH in validating the IPC facility-level assessment tool (IPC-FLAT), which during Year I was customized based on the WHO IPCAF with MTaPS' support. MTaPS

contributed to improving Ethiopia’s progress toward achieving higher JEE scores in IPC by supporting 80% of capacity level 2, 100% of level 3, 80% of level 4, and 20% of level 5 benchmark actions.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

In Quarter 1 of PY6, MTaPS Ethiopia portfolio accomplished the following key results:

- MTaPS provided technical support for the festive celebration of the 2023 World AMR Awareness Week (WAAW). More than 100 participants drawn from multisector government organizations, various partners, and international organizations attended the event.
- In collaboration with the MOH, MTaPS launched key technical documents and online training platforms at WAAW 2023. These technical resources include the IPC reference manual, AMS practical guide, and two e-Learning courses—one on IPC and the other on AMS.
- The online IPC and AMS courses on the e-Learning platforms continued a significant increase in uptake since they were uploaded to the MOH website in July 2023. As of December 14, 2023, 446 participants had registered for the online courses on IPC and 310 for AMS. A total of 188 (42%) of the enrollees completed the IPC course and 108 (35%) completed the AMS course and received certificates, which can be used as proof of continuing education units (CEU) for their relicensing.
- The outcomes of recent JEE in Ethiopia (September 2023) indicated significant progress in areas of MSC, IPC, and AMS, to which MTaPS made significant contributions. The final JEE score of Ethiopia (4/5 for both MSC and AMS, and 3/5 for IPC) exceeded MTaPS’ target for MSC and AMS (3/5) and matched the target for IPC (3/5).
- MTaPS successfully concluded its program implementation in Ethiopia with a celebratory closeout event organized on November 28, 2023, with the participation of high-level delegates from the MOH and USAID. USAID recognized the strong performance of MTaPS in Ethiopia, awarding a certificate to each member of the technical team.

RESULT AREA I: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support MOH and national AMR MSC stakeholders to implement and monitor progress of the national AMR prevention and containment strategic plan.

At the invitation of the FAO in Ethiopia, MTaPS participated in a “One Health Progressive Management Pathway (PMP) and Assessment Tool for Laboratories and Antimicrobial Resistance Surveillance Systems (ATLASS)” workshop held from October 30 to November 3, 2023, in Addis Ababa. The PMP-AMR is a tool reviewed and validated by a consortium of international experts, including those from the Quadripartite (FAO, WHO, WOA, and the United Nations Environment Programme [UNEP]), which helps provide guidelines and strategic directions to better institute cross-sectoral collaboration, public-private partnership, communication among stakeholders, and information sharing. This workshop brought together One Health stakeholders from the public and private sectors and allowed for consensus building on the steps to be taken to improve management of AMR response in Ethiopia. The event was attended by 40 (5 female) experts from the Ministry of Agriculture (MOA), the MOH, the Ethiopian Environment Protection Authority (EEPA), international and local partner organizations, and external assessors.

Activity 1.2.1: Support MOH and national AMR MSC stakeholders to improve awareness, education, and training on AMR.

In this quarter, MTaPS provided technical support for the celebration of WAAW 2023, which took place from November 18 to 24, 2023. The theme for WAAW 2023 remained the same as that of 2022: “Preventing Antimicrobial Resistance Together.” A task force composed of multisectoral stakeholders and partners including MTaPS led the organization of the event. The task force developed a comprehensive agenda, with various items proposed to be covered as part of the weeklong event, including training of mass media professionals; sending mass short message service (SMS) messages to the public through Ethio telecom; posting AMR messages (flyers, posters, etc.), including on social media; sensitization training on AMR for media of selected high schools to air WAAW messages to school communities; a press release, a panel discussion; launching of AMR documents; recognition of AMR champions; a site visit to the Ethiopian Agriculture Authority’s Quality control laboratory; and the organization of virtual CME sessions, all of which were well addressed as per the plan. MTaPS was actively engaged across many of these events.

The WAAW event was officially opened by her excellency Mrs. Frehiwot Abebe, State Minister, Ministry of Health, on November 17, 2023, at the Hilton Hotel in the presence of guests of honors from the MOH, the MOA, the EEPA, USAID, the CDC, WHO, and FAO. During this event, the MOH launched key technical documents and the IPC and AMS online training platforms developed with support from MTaPS. These technical documents included an IPC reference manual and an AMS practical guide. As of December 14, 2023, a total of 446 participants were registered for the online course on IPC and 310 for the course on AMS, of whom 188 (42%) and 108 (35%) completed the course/were certified, respectively, signifying a significant uptake of the courses by health workers.



Official launch of MTaPS-supported IPC and AMS documents, Nov 17, 2023. Photo credit: Joney Woldegebreal, MTaPS

More than 100 (33 female) participants drawn from the multisector government organizations, RHBs, public and private health facilities, civil societies, health professional associations, international organizations, USAID, and AMR advisory committee members attended the event. As a show of commitment, at the end of the program, all participants vowed to join hands in the prevention and containment of AMR. After the official launch of WAAW 2023, the Ethiopian Public Health Institute (EPHI) organized a half-day sector-specific WAAW event to sensitize the institute’s staff as part of the national awareness campaign on November 21, 2023. In addition, a site visit to the Ethiopian Agricultural Authority (EAA)’s Drug and Feed Quality Assessment Center was organized on November 22, 2023, where 30 (5 female) professionals from health, agriculture, and environment sectors and invited guests from USAID and MTaPS participated. Finally, on November 23, 2023, MTaPS contributed to a virtual CME course on AMR in collaboration with the MOH, JSI/USAID Quality Healthcare Activity (QHA)

project, and the EEPA. MTaPS participated in developing the course agenda and presented one of the course topics. Participants in the two-hour CME program received 1 CEU.



WAAW opening event, Nov 17, 2023. Photo credit: Joney Woldegebreal, MTaPS

RESULT AREA 2: IPC

Activity 2.2.1: Support the MOH and selected HFs to regularly track information on IPC and use it for CQI.

As part of the technical assistance provided by MTaPS to enhance IPC and AMS practices at selected hospitals, an integrated IPC-AMS training was provided to health professionals at Tirunesh Beijing Hospital over October 2–4, 2023. A total of 25 (13 female) health workers participated in the training. The primary aim of this training was to bolster the capacity of health care professionals in IPC and AMS, enabling them to effectively support the QI initiatives launched at the surgical and gynecology wards of the hospital. Concurrently, MTaPS worked alongside the IPC committee to facilitate the drafting of the hospital's annual IPC action plan. Upon the completion of the training, in his concluding remarks, the Hospital Medical Director emphasized the need for the participants to apply the acquired knowledge and skills practically to elevate the standards of IPC and AMS practices within the hospital, thus contributing to the hospital's efforts to prevent/reduce the spread of resistant infections and to improve health outcomes.

Activity 2.5.1: Support MOH to sustain IPC improvement practice at the national, regional, and facility levels.

MTaPS participated in the regular quarterly IPC-TWG meeting on November 9, 2023, hosted by the MOH. The purpose of the meeting was to discuss the 2016 Ethiopian financial year (EFY) Quarter I report and to hear the updates from MOH partners regarding support provided on implementation of IPC activities planned for the EFY. The meeting discussed the progress of planned IPC activities by the MOH, the challenges faced, and areas that need support. A total of 13 (1 female) TWG members participated in the meeting. As a secretary of the IPC TWG, MTaPS facilitated the meeting and compiled the meeting notes and shared the minutes with the members. This role is recently transitioned to QHA, a new USAID bilateral that has taken over the support on AMR and IPC to the Ethiopian government, post-MTaPS.

RESULT 3.5: AMS PRACTICES AND SERVICES IMPROVED.

Activity 3.5.1: Strengthen AMS implementation at targeted HFs.

As part of documentation and dissemination of program GHSA results achieved through USAID funding and contribution to global knowledge, MTaPS developed a technical brief entitled “Strengthening Antimicrobial Stewardship (AMS) in Ethiopia” and disseminated it to a wider audience. In addition, MTaPS published an article entitled “Optimizing prophylactic antibiotic use among surgery patients in Ethiopian hospitals” in the peer-reviewed *Journal of Infection and Public Health*. These documents are accessible at <https://www.mtapsprogram.org/our-resources/strengthening-antimicrobial-stewardship-in-ethiopia/> and <https://www.sciencedirect.com/science/article/pii/S1876034123003787>, respectively.

COUNTRY END-OF-PROJECT EVENT



Knowledge fair at the MTaPS closeout event, November 28, 2023.
Photo credit: Joney Woldegebreal, MTaPS

MTaPS celebrated its four years of program accomplishments in Ethiopia at a country closeout event in Addis Ababa on November 28, 2023. The event was attended by 46 participants (11 female), drawn from government counterparts (including the MOH, the MOA, the EEPA, the EPHI, RHBs, and hospitals), USAID, USG partners, international organizations, health professional associations, and the media. The event was honored by the presence of HE Mrs. Frehiwot Abebe, the State Minister, Ministry of Health of Ethiopia, Karen Koprince, USAID Ethiopia, Deputy Director of Health Office (representing the Deputy Mission Director), Dr. Daniel Gemechu, Country Representative of MSH–Ethiopia, and Dr. Emmanuel N’for, MTaPS Global Technical Director from the MSH home office. MTaPS’ presentation on results of the four-year program implementation highlighted remarkable progress in the areas of MSC, IPC, AMS, and response to the COVID-19 pandemic, evidenced by the results of the recent JEE score of Ethiopia, to which MTaPS contributed significantly. When the program started in 2018, MTaPS’ target was to help Ethiopia increase its JEE score from 2/5 (in 2016) to 3/5 or more by the end of the program, and the actual JEE score of Ethiopia in 2023 exceeded MTaPS’ target for MSC and AMS (4/5) and reached the target for IPC (3/5). During the panel discussion, panelists from the MOH and HFs noted the significant progresses made in Ethiopia in those 3 areas and highlighted the values of MTaPS’ support in building health systems for responding to AMR and emergencies such as COVID-19.

MTaPS celebrated its four years of program accomplishments in Ethiopia at a country closeout event in Addis Ababa on November 28, 2023. The event was attended by 46 participants (11 female), drawn from government counterparts (including the MOH, the MOA, the EEPA, the EPHI, RHBs, and hospitals), USAID, USG partners, international organizations, health professional associations, and the media. The event was honored by the presence of HE Mrs. Frehiwot Abebe, the



USAID awarding certificates to MTaPS staff at the MTaPS closeout event, Nov 28, 2023. Photo credit: Joney Woldegebreal, MTaPS

BEST PRACTICES/LESSONS LEARNED

The conversion of face-to-face training courses to online platforms has proven to be a viable option in Ethiopia to ensure sustainability of existing trainings. Online training is not only cost-effective but is also the most realistic options for countries such as Ethiopia to improve coverage and reach to the wide range of health workers in a short period of time. Since their upload in July 2023, a total of 429 and 306 participants registered for the online courses on IPC and AMS, respectively, indicating the potential for quickly reaching health workers in distant locations.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

No further activities are planned; MTaPS concluded its work in Ethiopia on December 31, 2023.

Table 9. Quarter I, FY24, Activity Progress, Ethiopia

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
<p>Activity 1.1.1: Support the MOH and national AMR MSC stakeholders to implement and monitor progress of the national AMR prevention and containment strategic plan.</p> <p>Activity description: Disseminate the revised NAP-AMR to relevant stakeholders, organize and facilitate advocacy and familiarization workshops, and organize performance review platform on NAP-AMR implementation at national, regional, and sectoral levels with stakeholders.</p>	5.4	1.1	<p>MTaPS participated in the “One Health PMP and ATCLASS” workshop from October 30 to November 3, 2023. The event was attended by 40 (5 female) experts from the MOA, the MOH, and the EEPA, international and local partner organizations, and external assessors who facilitated the assessment. This workshop helped in building consensus on the steps to be taken to improve management of the response to AMR in Ethiopia.</p>
<p>Activity 1.2.1: Support the MOH and national AMR MSC stakeholders to improve awareness, education, and training on AMR.</p> <p>Activity description: Support to improve awareness on AMR among the community, health care professionals, and policymakers, through evidence-based information sharing, communication, and education.</p>	5.4	1.2	<p>MTaPS supported a task force made up of multisectoral stakeholders representing human health, animal health, and the environment, as well as partner organizations in preparation for celebration of 2023 WAAW. The event officially opened on November 17, 2023, in presence of high-level representatives from the MOH, the MOA, the EEPA, WHO, FAO, USAID, and the CDC. MTAps played an active role in the WAAW event in which key documents and the IPC and AMS e-Learning courses were launched.</p>
<p>Activity 2.2.1: Support the MOH and selected HFs to regularly track information on IPC and use it for CQI.</p> <p>Activity description: Provide technical support to selected hospitals for on use of the national assessment tool for CQI of IPC and to identify areas of improvement on IPC, build capacity by providing training on CQI, build MOH capacity to implement the national HAI guidance at selected hospitals.</p>	5.4	2.2	<p>As part of facilitating implementation of the QI intervention, initiated at MTAps-supported hospitals, MTAps supported provision of IPC-AMS integrated training at Tirunesh Beijing Hospital. During the training, key topics relevant to the IPC-AMS QI intervention, such as HH, medical instruments processing, and guideline recommendations on SSI prevention were covered. The training helped build the capacity of health care professionals working in the surgical unit on preventing SSIs.</p>
<p>Activity 2.5.1: Support the MOH to sustain IPC improvement practices at the national, regional, and facility levels.</p> <p>Activity description: Support the MOH in identifying and strengthening selected hospitals as model IPC sites to become COEs in IPC implementation, showcase best practices, and serve as learning sites for other facilities; support the MOH and RHBs to strengthen IPC coordination bodies by establishing regional and zonal IPC teams to oversee and provide support on IPC implementation at the HF level.</p>	5.4	2.5	<p>The national IPC TWG has been advising the MOH in the planning and implementation of IPC intervention at the national level. As a member and secretary of the IPC TWG, MTAps participated in the quarterly IPC TWG meeting. The purpose of the meeting was to discuss the 2016 EFY Quarter I report and to hear the updates from MOH partners on support provided on implementation of IPC activities planned for the year.</p>

Activity	MTaPS Objective(s)	GHSa Result(s)	Activity Progress
<p>Activity 3.5.1: Strengthen AMS implementation in targeted health facilities.</p> <p>Activity description: Build the capacity of DTCs to facilitate ownership of AMS programs and enhance performance of the facility AMS team; identify hospitals that demonstrate capacity to implement AMS activities to serve as potential AMS learning centers.</p>	5.4	3.5	<p>As part of documenting and disseminating its results, MTaPS developed one technical brief and disseminated it to a wider audience. In addition, MTaPS published one article in the peer-reviewed <i>Journal of Infection and Public Health</i>. These documents are accessible at: https://www.mtapsprogram.org/our-resources/strengthening-antimicrobial-stewardship-in-ethiopia/ and https://www.mtapsprogram.org/our-resources/strengthening-antimicrobial-stewardship-in-ethiopia/, respectively.</p>

G. INDONESIA

FIELD SUPPORT ACTIVITIES

OVERVIEW

Promoting transparency and accountability is a prerequisite for improving access to essential medicines and strengthening health systems to achieve UHC. MTaPS supports Indonesia's pharmaceutical systems by strengthening their ability to institutionalize transparent and evidence-based decision making and their capacity to use robust information to define and cost pharmaceutical coverage, promote pharmaceutical expenditure (PE) tracking to improve purchasing value, and strengthen pharmaceutical-sector governance.

CUMULATIVE PERFORMANCE TO DATE

Health Technology Assessment

- The 9th HTAsiaLink Conference 2021 Digest: MTaPS contributed to the HTA discourse at the 9th HTAsiaLink Conference, showcasing commitment to HTA advancement.
- HTA Topic Selection Manual: MTaPS co-developed the manual by infusing MCDA and enhancing transparency in the HTA topic selection process.
- HTA Appraisal Manual outline: MTaPS condensed Indonesia's HTA appraisal from three full-day meetings into one half-day meeting using MCDA principles.
- Real-world evidence calibration: MTaPS introduced RWE calibration for a trastuzumab study on early breast cancer patients, elevating HTA quality in the face of data limitations.
- HTAsiaLink recognitions: MTaPS was awarded best oral presentation at the 10th and 11th HTAsiaLink Conferences, showcasing MCDA and stakeholder engagement.
- Global learning agenda: MTaPS submitted manuscripts to scientific journals from the HTAsiaLink conference presentations for publication.

Pharmaceutical expenditure

- Data source landscape: MTaPS mapped health care planning data sources for PE tracking.
- PE tracking initiatives: MTaPS pioneered Indonesia's PE tracking through hands-on learning.
- PE report in National Health Accounts (NHA): MTaPS ushered the publication of Indonesia's first PE report into the NHA.
- PE tracking guidance: MTaPS developed draft PE tracking guidelines.
- PE global learning agenda: MTaPS presented its PE work during the International Health Economics Association 2023 conference.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

Working in collaboration with the MOH and other stakeholders, MTaPS supported Indonesia in achieving the following key results:

Health technology assessment (Activities conducted in collaboration with Pusjak PDK and InaHTAC)

- HTA Topic Selection Manual developed in collaboration with Pusjak PDK and InaHTAC and rolled out for the 2024 call for HTA topics, contributing to increased transparency, wider stakeholder engagement, and a streamlined selection process.
- HTA selection process timeline reduced from 6–8 months to 4 months, allowing more time to conducting the HTA studies.
- HTA topic submissions from stakeholders increased from 19 in 2021 to 41 in 2022 and 141 in 2023, allowing for more diverse and policy-relevant topics.
- Transparency in HTA decision making improved through an inclusive stakeholder engagement process embedded in the co-developed HTA technical manual.
- HTA agents' (7 MOH staff and 3 university researchers) capacity on RWE calibration strengthened through participation in an economic evaluation of trastuzumab for early breast cancer patients. The use of RWE improves HTA quality and will be incorporated as one of Indonesia's standards for the expedited HTA process.

Pharmaceutical expenditure (Activities conducted in collaboration with Pusjak PDK and the NHA team)

- Draft of PE tracking guidance was submitted to MOH and USAID.
- PE tracking was conducted and on December 19, 2023, the Ministry of Technology held a 2022 NHA dissemination meeting. This report also includes pharmaceutical spending figures.

OBJECTIVE I: STRENGTHEN THE INSTITUTIONALIZATION OF MORE SYSTEMATIC, TRANSPARENT, AND EVIDENCE-INFORMED DECISION MAKING IN INDONESIA

Activity 1.1.1: Strengthen the topic selection process for the HTA committee, InaHTAC

Pusjak PDK and MTaPS spearheaded the verification process to ensure completeness of provided information. Of approximately 150 topics, 131 underwent verification. On October 4, 2023, the Pusjak PDK and MTaPS teams finalized scoring scales for each topic, established criteria for selection, and delineated tasks within the InaHTAC Secretariat. This involved scoring the 131 topics through the process of generating a performance matrix, triangulating with the topics database, conducting sensitivity analysis, calculating weighted scores, and prioritizing topics based on their importance.

Activity 1.1.2: Build capacity of key stakeholders on HTA methods

MTaPS continued with capacity-building initiatives focusing on the utilization of real-world data calibration in HTA for trastuzumab. MTaPS conducted this activity for Pusjak PDK and HTA agents. InaHTAC plans to employ these advanced methods for adaptive HTA. Throughout the weekly capacity-building meetings in October 2023, discussions encompassed planning, timeline considerations, and general methodologies crucial for conducting a rapid cost-effectiveness analysis (CEA) of trastuzumab. During these sessions, participants identified reference data for costs. The role of Gadjah Mada University in the rapid CEA on trastuzumab was a key point of discussion. Follow-up actions resulted in the generation of expert assumptions regarding resource utilization rates. These assumptions aim to mirror the typical Ina-CBG tariffs for breast cancer care. The identification of additional cost items necessary for the model was also addressed during these deliberations.

Activity 1.1.6: Document Indonesia HTA experience improving national HTA capacity through thought leadership activities, and disseminate through papers, conferences, and support of the InaHEA biennial scientific meeting

MTaPS collaborated with the InaHEA committee, contributing to three activities during the 8th Biannual Scientific Meeting (BSM) of InaHEA October 24–27, 2023, under the theme "Health System Transformation: Demographic Transition and Economic Challenges." MTaPS played a role in facilitating an HTA workshop at the Pre-BSM InaHEA, focusing on the use of real-world data calibration and MCDA for 20 universities. Additionally, MTaPS actively participated in Plenary I, addressing the theme "Advancing HTA in Shaping Technology-Related Policies for Aging and Productive Population," and had a booth exhibition. In supporting these activities and sharing HTA experiences with InaHTAC, MTaPS and Pusjak PDK plan to enhance university networks, aiming to establish them as HTA agents in the upcoming year. The objective is to increase the number of studies to approximately 50 HTA topics annually. In this endeavor, InaHEA is envisioned to play a facilitating role for Pusjak PDK in engaging universities that will assume the role of HTA agents.

The USAID MTaPS Asia Bureau facilitated a workshop on the Guidance of HTA Methods in the Philippines for Clinical Equipment and Devices (CED) and the use of RWE calibration models, based on experiences in Indonesia, November 28–30, 2023. This workshop involved representatives from both countries' Ministries of Health and HTA committees to enhance bilateral cooperation in strengthening HTA in their respective nations.

OBJECTIVE 2: PROMOTE TRANSPARENCY IN PHARMACEUTICAL EXPENDITURE TRACKING TO IMPROVE VALUE IN PURCHASING IN INDONESIA

Activity 2.1.2 Pharmaceutical expenditure preliminary results in Excel format

On December 19, 2023, the Ministry of Technology conducted a dissemination meeting for the 2022 NHA. This report encompasses pharmaceutical spending figures. The aggregate figures for PE in 2022 included the identification of generic drug names, with coding based on the Anatomical Therapeutic Chemical (ATC) classification. WHO and the ATC, along with the European Pharmaceutical Market Research Association, are employed in categorizing types of diseases. Of 203,205 wholesalers (82%) in 2021 and 12,485 Marketing Permit Numbers, it is estimated that national pharmaceutical spending in 2022 amounted to IDR 132.1 trillion (USD 8.2 billion).

Activity 2.1.6: Draft pharmaceutical expenditure tracking guideline (with reference to Indonesian PE step-by-step tracking process)

MTaPS has developed a draft PE tracking guide for Indonesia. This guide is a result of documenting the implementation of PE tracking in 2022, following the SHA 2011 framework. The resource outlines the process of mapping pharmaceutical spending data into disease classifications, which is often a priority for policymakers. The guide provides classifications based on disease types in HA estimates. It offers approaches to enhance accuracy in pharmacy spending estimates and supports the disaggregation of data based on the main classifications, such as scheme or provider. It has the potential to contribute to the global effort led by WHO to develop guidelines for countries in implementing PE tracking.

BEST PRACTICES/LESSONS LEARNED

- Structured, stakeholder-engaged processes can empower stakeholders to lead processes and yield results. For example, MTaPS enhanced Indonesia’s HTA frameworks to yield a more structured, stakeholder-engaged process. This has empowered the InaHTAC to deliver systematic policy recommendations for health technologies, effectively informing the national health insurance program’s benefit package. MTaPS played a pivotal role in co-developing the manual for HTA topic selection, providing frameworks for daily operations. Furthermore, MTaPS streamlined the HTA appraisal process and built capacity in using advanced HTA methods within Pusjak PDK and HTA agencies, accelerating HTA production.
- The interventions and leadership of local associations can play a key role in the pathway for sustainability of PSS initiatives. For example, MTaPS participated in supporting the implementation of the InaHEA 2023 BSM. InaHEA members are universities, around 20 of which have a focus on HTA. One of the results of InaHEA 2023 BSM is InaHEA's support to form a network of HTA agents from universities and coordinate with the MOH in implementing HTA in Indonesia. This will contribute to the achievement of the MOH’s plans to implement 50 HTA topics annually starting in 2024, in line with the HTA sustainability strategy.
- Successful co-implementation can provide partners with the skills, knowledge, and confidence they need to implement complex activities on their own, without MTaPS’ support. For example, with MTaPS’ support, the Indonesia HA team implemented Indonesia’s first-ever PE tracking. Initially, this endeavor presented challenges given the vast volume, diverse data sources, and multiple stakeholders involved. To begin the process, MTaPS worked in collaboration with the Indonesia HA team to conduct a country PE data sources landscape study that provided a comprehensive picture of how pharmaceutical spending happens and how information on that spending is captured and organized. The team identified key variables and compiled data effectively. As a significant milestone in health financing, Indonesia’s first PE findings were disseminated on December 6, 2022, and seamlessly incorporated into the country's HA results. In 2023, the MOH stepped up to lead PE tracking activities without outside technical support.
- Collaboration among government agencies is an important step toward the establishment of sustainable PE tracking. This was demonstrated with the initiation of the institutional implementation of PE tracking for the 2022 fiscal year, began with collaboration between Pusjak PDK and the Directorate of Pharmaceutical Production and Distribution (Prodisfar). In its implementation, the two MOH units take part in the institutionalization of this PE by arranging their respective tasks in providing data, processing data, analysis, and reporting. This initiation stage is a good lesson for MTaPS in creating sustainable PE tracking in Indonesia.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

All activities have been completed. MTaPS Indonesia will be closing on January 31, 2024.

Activity and Description	Date
Deliverables submission to USAID	January 2024
Financial Closeout	January 2024

Table 10. Quarter I, FY24, Activity Progress, Indonesia—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.1.1: Strengthen the topic selection process for the HTA committee, InaHTAC	1.1	Pusjak PDK and MTaPS jointly led the verification process to ensure the comprehensiveness of provided information. Of the approximately 150 topics, 131 underwent verification. On October 4, 2023, the Pusjak PDK and MTaPS teams finalized scoring scales and task distribution within the InaHTAC Secretariat. This involved scoring the 131 topics, generating a performance matrix, triangulating with the topics database, conducting sensitivity analysis, calculating weighted scores, and prioritizing the topics.
Activity 1.1.2: Build capacity of key stakeholders on HTA methods	1.1	Pusjak PDK hosted a two-day event December 13–14, 2023. This included a one-day capacity-building workshop on adaptive HTA methods (Dec. 13) and an appraisal meeting with InaHTAC on a colorectal cancer screening study (Dec. 14). The hybrid workshop, led by MTaPS and attended by approximately 20 participants from university-affiliated HTA agents, covered rapid review methodologies and rapid CEA. In response to Pusjak PDK's November 2023 request, MTaPS collaborated on an adaptive framework for rapid economic evaluation, contributing to a draft national guideline on adaptive HTA.
Activity 1.1.6: Document Indonesia HTA experience improving national HTA capacity through thought leadership activities, and disseminate through papers, conferences, and support of the InaHEA biennial scientific meeting	1.1	<p>A scientific article titled "A framework for an improved collaboration on HTA in the Asia-Pacific region: a role for HTAsiaLink" was completed and submitted to https://www.cambridge.org/core/services/authors/journals/publishing-open-access October 5, 2023.</p> <p>October 24–27, 2023, MTaPS collaborated with the InaHEA committee, contributing to the 8th BSM with the theme "Health System Transformation: Demographic Transition and Economic Challenges." MTaPS facilitated an HTA workshop at the Pre-BSM InaHEA, participated in Plenary 1, and had a booth exhibition. MTaPS, along with InaHTAC and Pusjak PDK, plans to bolster university networks as HTA agents, aiming for approximately 50 HTA studies yearly. InaHEA intends to facilitate Pusjak PDK for universities transitioning into HTA agents.</p> <p>The USAID MTaPS Asia Bureau facilitated a workshop on HTA Methods Guidance in the Philippines for CED and RWE Calibration Models November 28–30, 2023. This workshop aimed to enhance bilateral cooperation between the Ministries of Health and HTA committees of both countries, drawing on Indonesia's experiences to strengthen HTA practices in the Philippines.</p>
Activity 2.1.2: Pharmaceutical expenditure preliminary results in Excel format	1.1	On December 19, 2023, the Ministry of Technology held a dissemination meeting for the 2022 NHA report, including pharmaceutical spending figures. MTaPS contributed information on PE source maps, 2022 PE aggregate figures, and identification of generic drug names with coding based on the ATC. Estimated national pharmaceutical spending in 2022 was IDR 132.1 trillion (USD 8.2 billion). E-purchasing on the e-katalog accounted for IDR 7.5 trillion (5.6% of total spending), with vaccine procurement being the largest at IDR 2.046 trillion.

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 2.1.6: Draft pharmaceutical expenditure tracking guideline (with reference to Indonesian pharmaceutical expenditure step-by-step tracking process)</p>		<p>MTaPS developed a draft PE tracking guide for Indonesia, aligning with the SHA 2011 framework and emphasizing policymakers' needs. The guide instructs on mapping pharmaceutical spending data into disease classifications, enhancing accuracy, and facilitating disaggregation. This contribution aligns with global efforts in guideline development. Drawing on experiences from Burkina Faso, Vietnam, and Benin, the guide offers versatile normative guidance. While not exhaustive of country-specific nuances, insights from diverse countries inform adaptability, ensuring relevance across a broad spectrum of contexts.</p>

H. JORDAN

FIELD SUPPORT ACTIVITIES

OVERVIEW

In Jordan, MTaPS' overall goals are to improve pharmaceutical-sector governance, institutional capacity for pharmaceutical management and services and patient safety, and to contain AMR. To address the needs of the pharmaceutical sector in Jordan, MTaPS adopted the USAID PSS approach.

CUMULATIVE PERFORMANCE TO DATE

MTaPS played a critical role in driving significant procurement reforms in Jordan. Collaborating closely with the GPD, it facilitated 5 crucial regulatory actions, including legislative changes and institutional policy development for the JFDA and the MOH. MTaPS efforts included developing guidelines for FA implementation and procurement negotiation, aimed at enhancing supplier market entry, competitiveness, and health product availability. These initiatives also involved a comprehensive assessment of the pharmaceutical supply chain, leading to the formulation of the PSD Operational Plan 2023–2025 and the establishment of 6 priority supply chain management policies, which were granted official approval from the Secretary General for Technical and Administrative Affairs at the MOH.

With MTaPS support, both the MOH and the RMS strengthened their capacity to improve antibiotic use in clinical settings. As a result, 2 MOH hospitals developed 4 antibiotic prophylaxis protocols for select surgical procedures and one antibiotic treatment protocol for 7 types of urinary tract infections, which were approved by the MOH and disseminated to all public hospitals. The RMS AMR Central Committee developed 27 empirical treatment protocols for common ICU infections; these protocols were approved and disseminated to all RMS hospitals. Moreover, MTaPS supported the implementation of the protocols using a CQI approach. In collaboration with the National Advisory Committee for Infection Prevention and Control, MTaPS developed and launched a certified IPC training program for 63 staff (42 female) from all MOH and RMS hospitals. MTaPS also facilitated primary health care (PHC) IPC best practices training to 68 (53 female) focal points from health centers in all governorates.

MTaPS initiated a novel approach in Jordan to raise AMR awareness, as part of the MOH activities and in collaboration with local stakeholders, utilizing multimedia material including an animated video, a PowerPoint presentation, and social media platforms for information dissemination, as well as creating interactive and engaging educational programs involving the community, schools, and health care professionals to enhance understanding of AMR and promote responsible antibiotic use. MTaPS targeted different community groups, including service providers and farmers, and effectively implemented the AMR CASS activities, reaching 2,700 students (1,417 female) from 30 secondary education schools. To ensure a seamless transition of activities to the MOH, MTaPS supported the MOH SHD and its units within the HADs to integrate the AMR CASS activities into their annual work plans. Overall, these interventions contributed to PSS in Jordan in key areas of governance, human resources, pharmaceutical service delivery, information management, and financing.

OBJECTIVE I: STRENGTHEN PHARMACEUTICAL-SECTOR GOVERNANCE

Activity 1.1.1: Assist the GPD in institutionalizing FAs by automating priority implementation procedures into its electronic system.

MTaPS facilitated a series of technical workshops involving key stakeholders from the GPD, including the project management and information technology (IT) units, the Automation Advisory Committee, and the subcontracted IT company responsible for enhancing and expanding the existing Jordan Online E-Procurement System (JONEPS). A total of 16 participants (10 female) attended. Workshop participants identified procedures within the FA SOPs that could be automated and thereby determined those to be performed offline.

These workshops resulted in a preliminary draft of the FA procedure workflows, collaboratively developed with relevant stakeholders. The draft was distributed to participants after the workshop for additional review and feedback, which will be incorporated and used to finalize FA procedure workflows. These workflows will serve as blueprints for the subsequent stages of integrating the FA SOPs into the JONEPS, which will contribute to institutionalizing and sustaining the implementation of the FA SOPs by the GPD, leading to increased efficiency, data collection and availability, greater transparency, and clearer roles and responsibilities leading to improved governance in procurement activities in Jordan.



GPD participants engage in the review of the initial draft of workflows during the FA Procedures Automation workshop on October 25, 2023, Amman, Jordan. Photo credit: MTaPS Jordan

Activity 1.1.2: Provide technical assistance to the GPD in developing standard bidding documents (SBD) for FAs.

MTaPS supported the GPD in the development of the FA-related SBDs. The GPD utilized their existing General Supplies SBDs as a template to ensure that the drafted FA SBDs are consistent with the GPD requirements and best practices and aligned with the current legal regulations. The GPD initiated drafting the first section, “Instructions to Bidders,” which focuses on bidding procedures and thorough guidance for bidders during the bid preparation process. In Quarter 2, the FA TWG will start meeting monthly. MTaPS and the GPD will draft the sections of the SBDs and distribute them ahead of the meeting to the TWG members for their review and feedback. During the monthly TWG meetings, the material will be discussed and the final draft for each section agreed upon. The SBDs are intended to create a standardized, transparent, and efficient procurement process that will ensure fairness, reduce risks, and result in the selection of the most qualified and competitive bidder engaged in FAs.

Activity 1.1.3: Provide technical assistance to the GPD in developing a policy for evaluating performance of suppliers.

Supplier evaluation is pivotal for optimizing costs by identifying providers that offer an optimal balance of cost and quality, leading to improved contracts and reduced procurement expenses. MTaPS successfully completed the recruitment of the legal and procurement consultants to support the GPD in drafting of the policy for evaluating suppliers' performance, which will be followed by a thorough review and validation process involving relevant stakeholders. The forthcoming policy will adhere to the existing GPD policy format.

OBJECTIVE 4: IMPROVE PHARMACEUTICAL SERVICES, INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE, TO ACHIEVE DESIRED HEALTH OUTCOMES

Activity 4.1.1: Assist the MOH in implementing the clinical protocols previously developed with MTaPS' support and approved by the Minister.

The MOH led an orientation workshop on the antibiotic prophylaxis/treatment priority protocols targeting physicians, nurses, and pharmacists in Mafraq and Salt Hospitals (pilot facilities) in coordination with their hospital AMS committees, the central PCPD, and the Institutional Development and Quality Control Directorate (IDQCD). A total of 52 (24 female) participants attended the workshop. In the workshop, the hospitals' AMS committees informed their teams about the protocols and respective roles and responsibilities for implementation. In addition, the central IDQCD oriented staff from the hospital quality units on the audit tools and key performance indicators (KPIs). These tools were developed collaboratively by IDQCD and MTaPS and will be employed to monitor and evaluate the implementation of protocols. As a part of the ongoing CQI, the heads of the quality units and clinical pharmacists from both hospitals will initiate the first round of data collection and compare the results with the baseline information obtained before the implementation period to assess protocol adherence. The results will be presented at the AMS monthly meetings to discuss challenges, identify areas for improvement, and introduce a suggested action plan for the two hospitals. Furthermore, the MOH will disseminate the outcomes of the piloting through a collaborative workshop, sharing the experience of implementing the protocols, presenting the developed protocols, detailing the CQI process, and showcasing the results achieved by the two pilot hospitals. Additionally, the IDQCD and the PCPD will distribute the previously developed implementation policy to ensure compliance across all MOH hospitals. The rollout of the clinical protocols in all MOH hospitals will contribute to improving the rational use of antibiotics and patient safety in the country.

Activity 4.1.2: Assist the RMS in institutionalizing the implementation of RUA protocols in RMS hospitals.

As with the approach used for the MOH (activity 4.1.1), the RMS AMS committee led the implementation phase of the priority treatment protocols previously developed for 27 ICU infections. They conducted 2 rounds of orientation workshops attended by 94 participants (42 females), including physicians from various specialties, nurses, clinical pharmacists, IPC focal points, lab technicians, and quality officers from the King Hussein Medical City (KHMC) ICU departments (which comprises 3 hospitals) and the central AMS committee. The central AMS committee briefed their teams on the RUA protocols and outlined respective roles and responsibilities for implementation. Additionally, the central quality unit-oriented staff from the hospital's quality units on the audit tools and KPIs that will be used

to monitor and evaluate protocol implementation. The initiatives will revolve around the implementation process specifically at Al-Hussein Hospital, the largest central ICU at KHMC. Similar to the plan for the MOH and as a part of the ongoing CQI, Al-Hussain hospital quality unit staff, along with the hospital clinical pharmacists, will start data collection to assess protocol adherence, and the results will be presented at the AMS monthly meetings. Once fully implemented at the facility level, the protocols will contribute to achieving Jordan's AMR National Action Plan (NAP) objective 4 of optimizing the use of antimicrobial medicines.



Representatives from the King Hussein Medical City participate in orientation sessions on RUA protocols, December 4–6, 2023, Amman, Jordan. Photo credit: MTaPS Jordan.

Activity 4.2.1: Collaborate with the MOH to support IPC training for MOH hospitals' Neonatal Intensive Care Units (NICU) nursing staff, utilizing the Health Care Infection Preventionist Course (HCIP)–trained IPC focal points as lead trainers.

This activity will commence next quarter.

Activity 4.2.2: Collaborate with the MOH, HADs, and the HCAC to support the locally led HCIP training program for hospitals IPC focal points.

As a continuation of the IPC capacity-building program implemented in the previous program year, MTaPS collaborated again with the HCAC and the MOH Infection Prevention and Control Directorate (IPCD) to train 28 (17 female) IPC focal points from several MOH hospitals across Jordan on HCIP. The MOH decided not to nominate representatives from the HADs to participate in this training as initially planned.

This training program aims at building the capacities of new IPC focal points assigned to develop and manage IPC policies and programs at their hospitals. The focal points are also responsible for orienting and training health care providers and service staff on IPC best practices, surveillance of health care–acquired infections, and monitoring and implementing IPC plans to prevent and control infections in hospitals. The capacitated personnel will ensure quality implementation and standardization of IPC practices across hospitals and departments, contributing to preventing the spread of diseases, as well as reducing complications, length of hospital stays, and deaths among vulnerable populations.

Activity 4.3.1: Collaborate with the MOH, HADs, and HCAC to support locally led health care certified safety and infection control preventionist (HCSIP) training program for PHC providers.

In response to a request from the MOH, MTaPS expanded its collaboration with the HCAC to conduct a certified face-to-face HCSIP course (didactic and practical over 5 months) for IPC focal points from the HADs and selected MOH PHC centers. IPC training is a mandatory requirement for health facilities to meet national accreditation standards. MTaPS agreed with the IPCD on a criterion for prioritizing centers based on location, workload, and accreditation status. To ensure sustainability, the IPCD has set conditions for participation of staff in the training: commitment to cascade the training program at their

respective facilities over the next 2 years, planned retirement date no earlier than 5 years, and preferred assignment to PHC centers undergoing accreditation, increasing their likelihood of success in meeting the accreditation IPC requirements. The HCAC trained 50 (37 female) health center IPC focal points, who will be responsible for implementing and monitoring strengthened IPC interventions at the facilities. These efforts are expected to align with national accreditation standards, ultimately contributing to improved patient health outcomes.

Activity 4.3.2: Support the MOH in conducting a national IPC assessment, including both the MOH and private-sector dental settings.

MTaPS maintained close collaboration with the IPCD to customize the US CDC assessment tool Infection Prevention Checklist for Dental Settings to the specific needs of assessing IPC practices in dental settings across the country. MTA PS selected a consultant to lead the IPC assessment, which included developing the assessment protocol, defining the methodology, determining the sample size, and informing the recruitment of the company that will conduct the data collection. A pilot assessment in a select number of dental clinics and centers will be conducted to better understand the dental setting and evaluate the assessment tool. Afterward, the IPCD and MTA PS will carry out a nationwide IPC assessment in selected dental clinics and centers. This assessment aims to evaluate current IPC practices, identify gaps and recommendations to enhance IPC measures in dental settings, and contribute to reducing the prevalence and incidence rates of infections and communicable diseases in Jordan.

Activity 4.4.1: Support the MOH to widely disseminate the finalized AMR awareness health messages for the general population.

The HCAD collaborated with key stakeholders, such as the PCPD and IPCD, to review, perform minor modifications to, and finalize the AMR awareness messages previously developed with MTA PS support. These messages are targeted to various audiences, including students, health service providers, and individuals with diverse educational backgrounds in both urban and rural communities. These messages will be disseminated through the MOH's social media platforms. The goal is to improve the community's comprehension of IPC and AMR principles and encourage people to integrate these practices into their daily lives.

Activity 4.4.2: Support the MOH in raising AMR awareness in additional public schools across the country.

The SHD has integrated the AMR CASS into its annual action plan, recognizing AMR awareness sessions for students as a new foundational activity. Also, the MOH acknowledged CASS as a component of the awareness pillar in the updated AMR NAP for 2023–2025. To implement and sustain CASS activities in additional schools, MTA PS will assist the SHD to organize TOT sessions for 40 health educators and school health supervisors from all HADs across Jordan, who will then conduct awareness sessions in additional schools. Moreover, MTA PS will provide the SHD with updated IEC materials and a questionnaire aimed at teachers and students to evaluate knowledge acquisition and assess any changes in perceptions to support the continuation of CASS activities after MTA PS program closes out. Expanding CASS activities are expected to alter perceptions related to antimicrobial use in school-aged youth, with the goal of intervening before inappropriate attitudes and behaviors become entrenched, and to use the students as agents to disseminate appropriate messages and influence adults in their household.

BEST PRACTICES/LESSONS LEARNED

- An essential element in conducting successful orientation sessions on clinical protocols is enabling stakeholders to take full ownership of the sessions by involving them in the development and review of training materials, engaging them as co-facilitators of the sessions, and following up on the implementation of the protocols providing mentoring and on-the-job guidance. Integrating various learning modalities such as case studies and open discussions is also crucial for an enriched learning experience.
- Conducting follow-up field visits, especially during the initial phase of clinical protocol implementation, proves highly effective to foster stronger coordination and collaboration among AMS committees and health care providers within the facility.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Clarify roles and responsibilities aligned with the FA procedures within the JONEPS and consider steps where data may be digitally captured and formulate the content for the electronic forms that are essential for executing FA procedures in alignment with the FA SOPs.	January–March 2024
Activity 1.1.2: Conduct monthly meetings with the FA TWG to review and finalize the first draft of the FA SBD.	January–March 2024
Activity 1.1.3: The GPD, supported by MTaPS, will draft the policy, undergo stakeholder review, and validate it meticulously.	January–March 2024
Activity 4.1.1: Quality unit heads and clinical pharmacists will commence data collection to assess protocol adherence, and the findings will be reviewed monthly to address challenges and implement improvements.	January–March 2024
Activity 4.1.2: Al-Hussein hospital’s quality unit and clinical pharmacists will start data collection to assess protocol adherence, comparing them with baseline data. Results will be discussed in AMS monthly meetings to address challenges and implement improvements.	January–March 2024
Activity 4.2.1: Support the IPCD in training senior nursing staff from 25 MOH hospitals’ NICUs, aiming to enhance IPC practices and reduce infections among neonates.	January–March 2024
Activity 4.2.2: Follow-up visits to monitor the progress of the HCIP training program	January–March 2024
Activity 4.3.1: Follow-up visits to monitor the progress of the HCSIP training program	January–March 2024
Activity 4.3.2: Support the MOH IPCD in implementing the National IPC dental assessment, including finalizing and approving the customized dental assessment tools, recruiting the data collection company, training data collectors, piloting selected dental clinics and centers, conducting data collection, cleaning and finalizing the assessment dataset, and drafting the assessment report.	January–March 2024
Activity 4.4.1: Digitally disseminate the AMR health messages targeting different sets of community audiences through the MOH social media platforms.	January–March 2024
Activity 4.4.2: Support the SHD in conducting a TOT session for 40 health educators, disseminate the CASS IEC materials and monitoring tools for 800 schools, and follow up on the implementation of CASS activities in 100 schools.	January–March 2024

Table 11. Quarter 1, FY24, Activity Progress, Jordan—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 1.1.1: Assist the GPD in institutionalizing FAs by automating priority implementation procedures into its electronic system.</p> <p>Activity description: Support the GPD counterparts in integrating the FA SOPs into their JONEPS.</p>	1	Organized technical workshops involving key stakeholders from the GPD, focusing on FA SOP automation within the JONEPS. A total of 16 participants (10 female) identified automatable FA SOPs and drafted initial workflows collaboratively.
<p>Activity 1.1.2: Provide technical assistance to the GPD in developing SBDs for FAs.</p> <p>Activity description: Support the GPD in developing SBDs that will guide bidders when preparing their bids.</p>	1	Supported the GPD in developing FA-related SBDs, using existing templates to align with GPD requirements and legal standards. The initial focus was on the “Instructions to Bidders” section, outlining bid procedures and bidder guidance. Moving forward, the FA TWG plans monthly meetings from Quarter 2 to collaboratively draft and refine SBD sections. The aim is to establish standardized, transparent procurement processes that ensure fairness, minimize risks, and select the most qualified bidders for FAs.
<p>Activity 1.1.3: Provide technical assistance to the GPD in developing a policy for evaluating performance of suppliers.</p> <p>Activity description: Support the GPD to develop a policy that ensures that suppliers’ performance is thoroughly evaluated for optimizing costs by identifying providers that offer an optimal balance of cost and quality, leading to improved contracts and reduced procurement expenses.</p>	1	Concluded the recruitment of the legal and procurement consultants to assist the GPD in formulating a supplier evaluation policy. This policy aligned with GPD’s format, aims to optimize costs by pinpointing providers balancing quality and expenses.
<p>Activity 4.1.1: Assist the MOH in implementing the antibiotic prophylaxis/treatment protocols previously developed with MTaPS’ support and approved by the Minister.</p> <p>Activity description: Support conducting of orientation workshops for physicians (including medical residents), nurses, and pharmacists in Mafraq and Salt Hospitals.</p>	4	The MOH led two orientation sessions for Mafraq and Salt Hospitals on the previously developed prophylaxis/treatment protocols. Throughout these sessions, the hospitals’ AMS committees familiarized their teams with the protocols, while the MOH central IDQCD trained the hospitals’ quality unit staff on the necessary audit tools and KPIs for monitoring of the protocols’ implementation.
<p>Activity 4.1.2: Assist the RMS in institutionalizing the implementation of RUA protocols in RMS hospitals.</p> <p>Activity description: Support the RMS central AMR committee in conducting an orientation workshop for service providers from all RMS hospitals.</p>	4	The RMS AMS committee led the orientation sessions for ICU staff from the King Hussein Medical City (KHMC), which comprises 3 hospitals, on the 27 priority treatment protocols previously developed. The sessions engaged physicians, nurses, pharmacists, IPC focal points, lab techs, and quality officers. The central quality unit has oriented staff from the hospital's quality units on the audit tools and KPIs to monitor and evaluate protocol implementation. CQI initiatives will be centered on the implementation process at Al-Hussein Hospital, the largest and central ICU in the KHMC.
<p>Activity 4.2.1: Collaborate with the MOH to support IPC training for MOH hospitals’ NICU nursing staff, utilizing the HCIP-trained IPC focal points as lead trainers.</p>	4	This activity will commence next quarter.

<p>Activity description: Support training of selected senior nursing staff from the NICUs of select MOH hospitals.</p>		
<p>Activity 4.2.2: Collaborate with the MOH, HADs, and HCAC to support locally led HCIP training program for hospitals IPC focal points.</p> <p>Activity description: In collaboration with HCAC, provide additional support to the MOH IPCD to capacitate the focal points and create an enabling environment for the implementation of IPC interventions.</p>	4	MTaPS continued the partnership with HCAC and the MOH IPCD to conduct the HCIP training for 28 IPC focal points from various MOH hospitals in Jordan. The program focuses on building capacities for developing and managing IPC policies, training health care providers on best practices, and monitoring health care–acquired infections.
<p>Activity 4.3.1: Collaborate with the MOH, HADs, and HCAC to support locally led HCSIP training program for PHC providers.</p> <p>Activity description: Collaborate with the HCAC to provide the certified HCSIP course to IPC focal points from HADs and select MOH PHC centers.</p>	4	MTaPS expanded the collaboration with the HCAC and the MOH to train and certify 50 IPC focal points from health centers and HAD who are expected to implement and monitor IPC interventions in alignment with accreditation standards and to contribute to enhance patient health outcomes in Jordan.
<p>Activity 4.3.2: Support the MOH in conducting a national IPC assessment including both MOH and private-sector dental settings.</p> <p>Activity description: Provide comprehensive technical and logistical support in conducting an IPC assessment in dental clinics and centers across the country.</p>	4	MTaPS collaborated with the IPCD to tailor a CDC IPC assessment tool to Jordanian dental settings, ensuring that it comprehensively covers crucial IPC areas. A consultant was hired to be responsible for protocol development and assessment oversight, and the IPCD and MTAps will train data collectors and pilot the tool in select clinics.
<p>Activity 4.4.1: Support the MOH to widely disseminate the finalized AMR awareness health messages for the general population.</p> <p>Activity description: Support the MOH HCAD to continue the dissemination of health messages digitally targeting different sets of community audiences through the MOH social media platforms.</p>	4	The HCAD, with the PCPD and the IPCD, updated the AMR awareness messages previously supported by MTAps. These health messages are tailored to diverse community groups, including students and health care providers, and they will be shared on MOH’s social media platforms.
<p>Activity 4.4.2: Support the MOH in raising AMR awareness in additional public schools across the country.</p> <p>Activity description: Collaborate with the MOH and SHD to support raising AMR awareness among additional school students.</p>	4	The SHD has integrated the AMR CASS into its annual action plan, recognizing AMR awareness sessions for students as a new foundational activity and acknowledging CASS as a component of the awareness pillar in the updated NAP-AMR for 2023–2025.

I. KENYA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

In Kenya, MTaPS is supporting three result areas in the AMR action package: strengthening MSC on AMR through the NASIC and CASICs; strengthening IPC and AMS on governance and human resources capacity at the national, county, and HF levels; and supporting county- and facility-level IPC, AMS, OSH, and WASH activities for sustainable capacity. These efforts support AMR containment at the national, county, and HF levels by strengthening core governance structures and applying a structured CQI approach to promote control of HAIs, contain AMR, and improve patient safety.

CUMULATIVE PERFORMANCE TO DATE

Through the PY1 to PY5 work plans, MTaPS helped Kenya counterparts improve Kenya's JEE scores by supporting 58% (36/62) of the benchmark actions. In MSC, MTaPS supported completion of 50% (2/4) of capacity level 2 actions, 50% (2/4) of capacity level 3 actions, 100% (4/4) of capacity level 4 actions, and 60% (3/5) of capacity level 5 actions as of September 2023. MTaPS supported MSC activities at the national level and in four focus counties. Key MTaPS activities have included strengthening the MSC structures at national (NASIC) and county (CASIC) levels; developing and disseminating a standardized AMR communique, a CASIC orientation package, and bulletins to OH stakeholders; and developing and reviewing the NAP-AMR, its M&E framework, and CASIC work plans in MTaPS-supported counties.

As of September 2023, MTaPS supported the completion of 80% (4/5) of capacity level 2 actions, 83% (5/6) of capacity level 3 actions, 80% (4/5) of capacity level 4 actions, and 40% (2/5) of capacity level 5 actions for IPC. MTaPS activities focused on strengthening the IPC governance structures at the national and county levels, developing and reviewing the IPC guidelines, applying IPC assessment tools, training HCWs, developing a relicensure-linked IPC CPD course, and monitoring implementation of IPC and WASH activities using a CQI approach in the focus counties and HFs.

For AMS JEE scores, MTaPS supported completion of 75% (3/4) of capacity level 2 actions, 83% (5/6) of capacity level 3 actions, 29% (2/7) of capacity level 4 actions, and 0% (0/7) of capacity level 5 actions as of September 2023. MTaPS interventions focus on strengthening AMS governance structures at the national level and in the focus counties and HFs; developing the KNMF; reviewing the KEML with incorporation of the AWaRe categorization of antibiotics; developing and disseminating the national AMS guidelines, regulatory guidance on optimal use of antimicrobials to HCWs and the public, and AMS curricula at the pre-service and in-service levels; training HCWs on AMS; and monitoring implementation of AMS activities using a CQI approach in the focus counties and HFs.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

MTaPS provided TA to the NASIC and the CASICs of the MTaPS focus counties (Nyeri, Kisumu, Murang'a, and Kilifi) in planning and commemorating WAAW, held from November 18 to 24, 2023. During the national event, the MTaPS-supported revised NAP-AMR and its associated M&E framework

were launched. Additionally, MTaPS provided TA for the development and launch of the second Nyeri CASIC work plan. In collaboration with NASIC, MTaPS supported an AMR stakeholder mapping meeting on November 17, 2023.

In collaboration with the MoH, MTaPS supported the finalization and launch of the national HAI surveillance and national IPC guidelines, both launched during WAAW. Additionally, MTaPS supported the review and launch of Kisumu and Nyeri CIPCAC work plans as well as the launch of the Kisumu County HCWM plan. MTaPS, in collaboration with Kisumu and Nyeri county health management teams (CHMTs), conducted end-term IPC assessments in the 16 MTaPS-supported HFs (8 in Nyeri and 8 in Kisumu). MTaPS, in collaboration with the National Nurses Association of Kenya (NNAK), conducted a webinar on advanced wound assessment and care.

In collaboration with the MoH Directorate of Health Products and Technologies (DHPT), MTaPS provided TA with the finalization and launch of the KEML 2023 and the KNMF 2023, both incorporating AWARe categorization. Additionally, MTaPS, in collaboration with the CHMTs in Kisumu and Nyeri, conducted end-term AMS assessments in 15 MTaPS-supported HFs (8 in Nyeri and 7 in Kisumu). MTaPS, in collaboration with the Pharmaceutical Society of Kenya (PSK) and the PPB, conducted a webinar on AMU in community pharmacies.

In addition, MTaPS conducted close-out dissemination meetings in Nyeri and Kisumu counties, where county and facility teams presented on their collaboration with MTaPS, successes, challenges, lessons learned, and sustainability plans.

RESULT AREA I: EFFECTIVE MSC OF AMR

Activity 1.1.1: Institutionalize NASIC and CASIC for coordination, policy direction, review, and M&E of the NAP-AMR and help to move toward sustainable capacity

MTaPS provided TA to the NASIC and CASICs in Nyeri, Kisumu, Murang'a, and Kilifi counties in commemoration of WAAW 2023 (November 18 to 24, 2023), which saw the launch of the NAP-AMR and its M&E framework, both technically and financially supported by MTaPS. In addition, MTaPS facilitated a session on AMS in human health at the national AMR youth webinar held on November 17, 2023, which engaged over 100 youths across the country, focusing on the theme "Preventing Antimicrobial Resistance Together." As part of the sustainability plan for the implementation of the NAP-AMR, MTaPS, in collaboration with the NASIC secretariat, conducted an AMR stakeholder consultative meeting held on November 17, 2023, that mapped AMR stakeholders in the country. In attendance were 34 representatives from different organizations.

Additionally, MTaPS collaborated with Kisumu County to hold a CASIC meeting on October 26, 2023, to review work plan progress (19 participants, including 10 female) and with Nyeri County on November 1, 2023, to both review CASIC work plan implementation progress and validate the work plan (28 participants, including 15 female). MTaPS also supported Murang'a County in holding their second AMR symposium on November 22, 2023, aimed at creating awareness on AMR and targeting community and religious leaders, youth, and agriculture and human health community workers; in attendance were 36 participants (19 male, 17 female). MTaPS, in collaboration with the Nyeri CASIC,

launched the next iteration of the CASIC work plan 2023–2025 on November 23, 2023, engaging 65 participants (34 male, 31 female) during the Nyeri close-out and dissemination meeting.

RESULT AREA 2: IPC

Activity 2.1.1: Institutionalize IPC governance at the national, county, and facility levels

MTaPS supported the review, finalization, and launch of the national IPC and HAI surveillance guidelines. The documents were launched on November 20, 2023, during the WAAW commemoration. In addition, MTAps provided TA with the review of the Kenya National Guidelines on Safe Disposal of Healthcare Waste. The document is pending approval by senior MoH officials.

With MTAps support, Kisumu and Nyeri counties held CIPCAC meetings to review and validate their work plans on October 26, 2023 (9 participants; 5 female), and November 1, 2023 (11 participants; 8 female), respectively. Nyeri launched its work plan on November 23, 2023, and Kisumu on December 7, 2023. Kisumu also launched its county HCWM plan on the same day at the Kisumu County close-out and dissemination meeting. In attendance were 62 participants (36 male, 26 female).

Activity 2.2.1: Support routinization, strengthening, and scale-up of health care human resource capacity for IPC through pre-service, in-service, and CPD trainings

MTaPS, in collaboration with the National Nurses Association of Kenya (NNAK), held a virtual webinar on December 13, 2023. The topic of discussion was advanced wound assessment and care. A total of 141 nurses (99 female, 42 male) took part in the event.

Activity 2.5.1: Institutionalize county-, subcounty-, and facility-level IPC, OSH, and WASH activities for sustainable capacity

MTaPS, in collaboration with the Kisumu and Nyeri CHMTs, conducted IPC end-term assessments in 16 MTAps-supported facilities (8 in Kisumu and 8 in Nyeri) between October 23 and November 3, 2023, with the aim of measuring improvements made over the five-year program period. The findings were disseminated during the counties' close-out and dissemination meetings.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Institutionalize and strengthen AMS governance structures at the national and county levels

MTaPS, in collaboration with the DHPT, finalized the reviews of the KEML 2023 and the KNMF 2023, both incorporating AWaRe categorization. Both documents were launched by His Excellency the President on October 13, 2023, during a local manufacturers' expo attended by various stakeholders, including pharmaceutical manufacturers, distributors, other HCWs, and the general public.

Activity 3.2.1: Support routinization, strengthening, and scale-up of health care human resource capacity for AMS through pre- and in-service trainings

MTaPS facilitated a virtual webinar, in collaboration with the PSK and PPB, on AMU in community pharmacies on November 28, 2023, engaging 761 pharmacists (436 male, 325 female).

Activity 3.5.1: Support institutionalization of county-, subcounty-, and facility-level AMS activities for sustainable capacity

MTaPS conducted an AMS end-term assessment at 15 MTAaPS-supported HFs (7 in Kisumu and 8 in Nyeri), with the aim of determining the status of AMS program implementation over the five-year program period. The findings were disseminated during the counties' close-out and dissemination meetings. Additionally, MTAaPS has finalized the development of AMR and AMS IEC materials and SOPs. Moreover, MTAaPS is currently finalizing the development of the AMS-AWaRe guides.

BEST PRACTICES/LESSONS LEARNED

- Mapping of AMR stakeholders supports the implementation of NAP-AMR by identifying their areas of focus and enhancing partner collaboration through NASIC guidance, hence avoiding duplication of efforts. The mapping also highlighted focus areas by county that were supported by various partners, as well as counties that had no partner support on AMR.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Institutionalize NASIC and CASIC for coordination, policy direction, review, and M&E of the NAP-AMR plan and help to move toward sustainable capacity <ul style="list-style-type: none"> ▪ Disseminate the NAP-AMR and M&E framework ▪ Continue to provide TA to the NASIC and the CASICs in Murang'a and Kilifi counties 	January–March 2024
Activity 2.1.1: Institutionalize IPC governance at the national, county, and facility levels <ul style="list-style-type: none"> ▪ Finalize, launch, and disseminate the AMR mobile app. ▪ Disseminate IPC and HAI surveillance guidelines ▪ Provide TA for NIPCAC and CIPCAC meetings 	January–March 2024
Activity 2.2.1: Support routinization, strengthening, and scale-up of health care human resource capacity for IPC through pre-service, in-service, and CPD trainings <ul style="list-style-type: none"> ▪ Conduct NNAK IPC quarterly webinars 	January–March 2024
Activity 2.5.1: Institutionalize county-, subcounty-, and facility-level IPC, OSH, and WASH activities for sustainable capacity <ul style="list-style-type: none"> ▪ Provide TA to the Murang'a and Kilifi CHMTs to conduct supportive supervision ▪ Finalize the review of the Kilifi CIPCAC work plan ▪ Disseminate various IPC packages, i.e., assessment tools, SOPs, orientation packages, etc. ▪ Conduct IPC end-term assessments in Kilifi and Murang'a counties 	January–March 2024
Activity 3.1.1: Institutionalize and strengthen AMS governance structures at the national and county levels <ul style="list-style-type: none"> ▪ Provide TA with the review of the Kilifi and Murang'a CASIC work plans ▪ Finalization and launch of the AMC tool ▪ Hold a workshop on use of bacteriophages in AMR containment with the Kenya Medical Research Institute and other stakeholders 	January–March 2024
Activity 3.2.1: Support routinization, strengthening, and scale-up of health care human resource capacity for AMS through pre- and in-service trainings <ul style="list-style-type: none"> ▪ Provide TA to the University of Nairobi for review of pre-service AMS training ▪ Support data review engagements with Kilifi and Murang'a counties to support AMU surveillance 	January–March 2024
Activity 3.5.1: Support institutionalization of county-, subcounty-, and facility-level AMS activities for sustainable capacity <ul style="list-style-type: none"> ▪ Provide TA to the Murang'a and Kilifi CHMTs to conduct supportive supervision ▪ Conduct AMS end-term assessment in Kilifi and Murang'a counties 	January–March 2024

Table 12. Quarter 1, FY24, Activity Progress, Kenya—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
<p>Activity 1.1.1: Institutionalize NASIC and CASIC for coordination, policy direction, review, and M&E of the NAP-AMR and help to move toward sustainable capacity</p> <p>Activity description: Support NASIC in conducting AMR partner mapping; dissemination and implementation of the NAP-AMR 2023–2027 with its consequent M&E framework. Additionally, support institutionalization and strengthening of the Kilifi and Murang’a CASICs.</p>	5.4	1.1	<ul style="list-style-type: none"> ▪ Conducted AMR stakeholder mapping on November 17, 2023 ▪ Provided TA to NASIC and CASICs in planning and commemoration of WAAW 2023 (November 18–24, 2023) ▪ Finalized and launched the revised NAP-AMR and its M&E framework ▪ Launched Nyeri CASIC work plan and provided TA to Murang’a CASIC in holding their second AMR symposium
<p>Activity 2.1.1: Institutionalize IPC governance at the national, county, and facility levels</p> <p>Activity description: Support the MoH in implementation of the national IPC M&E framework, development/review of relevant SOPs, meetings with the national IPC TWG and NIPCAC, CIPCAC meetings, and monitoring of implementation of HF action and IPC CQI plans</p>	5.4	2.1	<ul style="list-style-type: none"> ▪ Launched the national IPC and HAI surveillance guidelines during the launch of WAAW on December 20, 2023 ▪ Launched the revised Nyeri and Kisumu CIPCAC work plans on November 23 and December 7, respectively, and the Kisumu HCWM work plan ▪ TA for the revision of the Murang’a CIPCAC work plan and ongoing TA for Kilifi CIPCAC work plan revision
<p>Activity 2.2.1: Support routinization, strengthening, and scale-up of health care human resource capacity for IPC through pre-service, in-service, and CPD trainings</p> <p>Activity description: Support routinization, strengthening, and scale-up of the IPC CPD course in collaboration with health professional associations; collaborate with national MOH IPC team and stakeholders in introduction of IPC agenda/courses for in-service training</p>	5.4	2.2	<ul style="list-style-type: none"> ▪ Conducted a virtual webinar in collaboration with NNAK on advanced wound assessment and care on December 13, 2023, that was attended by 141 participants (99 female)
<p>Activity 2.5.1: Institutionalize county-, subcounty-, and facility-level IPC, OSH, and WASH activities for sustainable capacity</p> <p>Activity description: Support institutionalization of county and HF IPC champions to implement and review IPC CQI action plans, report on key IPC indicators through the KHIS; disseminate and implement existing and newly prioritized IPC guidelines, SOPs, and job aids; document and share best practices and lessons learned</p>	5.4	2.5	<ul style="list-style-type: none"> ▪ Conducted IPC end-term assessments in 16 MTaPS-supported facilities (8 in Kisumu and 8 in Nyeri) between October 27 and November 3, 2023, assessing IPC implementation over the 5-year period of project implementation
<p>Activity 3.1.1: Institutionalize and strengthen AMS governance structures at the national and county levels</p> <p>Activity description: Support PPB in utilization of the AMS surveillance tool, provide TA to county AMS focal person in 2 MTaPS focus counties, and support development/review and use of national outpatient prescription and inpatient treatment review sheets.</p>	5.4	3.1	<ul style="list-style-type: none"> ▪ TA in the finalization of the KEML 2023 and KNMF 2023, both launched by His Excellency the President during the local manufacturing expo on October 13, 2023. The documents are currently being disseminated.

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
<p>Activity 3.2.1: Support routinization, strengthening, and scale-up of health care human resource capacity for AMS through pre- and in-service trainings</p> <p>Activity description: In collaboration with PPB, support routinization, strengthening, scale-up, and incorporation of AMR and AMS course in core pre-service curricula for pharmacy training programs. Ongoing provision of AMS CPD curriculum in collaboration with professional bodies. Support dissemination of a PPS training package; scale up patient-focused AMS interventions.</p>	5.4	3.2	<ul style="list-style-type: none"> ▪ In collaboration with the PSK, MTaPS conducted a webinar on AMU in community pharmacies engaging 761 participants (436 male, 325 female).
<p>Activity 3.5.1: Support institutionalization of county-, subcounty-, and facility-level AMS activities for sustainable capacity</p> <p>Activity description: Support implementation for patient-focused AMS interventions in the 6 MTaPS focus AMS sites; updating of facility AMS CQI action plans; development/revision and dissemination of prioritized AMR/AMS IEC materials; training of HCWs in new priority AMS areas; supportive supervision; and documentation of best practices and lessons learned to support knowledge management and sharing</p>	5.4	3.5	<ul style="list-style-type: none"> ▪ Conducted AMS end-term assessments in 15 MTaPS-supported facilities and 2 community pharmacies (7 facilities and 1 community pharmacy in Kisumu and 8 facilities and 1 community pharmacy in Nyeri) ▪ Finalized AMR and AMS prioritized SOPs and IEC materials which are currently being disseminated ▪ Ongoing review of the AMS-AWVaRe guides for dissemination next quarter

J. MALI

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

In Mali, MTaPS' GHSA program implementation is guided by the WHO benchmarks for IHR capacities and relies on other published best practices to collaborate with partners at the global, regional, and country levels; to combine planning and implementation with an embedded monitoring and knowledge-sharing element to capture, document, and disseminate experience and results; and to address sex and gender impacts on AMR. MTaPS advocates for a systematic and comprehensive approach to support IPC and AMS activities for AMR containment with the support and oversight of the MSC body on AMR and its IPC and AMS TWGs. In Mali, this MSC body is called the GCMN-RAM. AMR activities in Mali span the national, facility, and community levels.

CUMULATIVE PERFORMANCE TO DATE

From FY19 to FY23, MTaPS worked with the GCMN-RAM to develop TOR for the group, as well as for its IPC and AMS TWGs. With MTaPS' support, the GCMN-RAM has been able to organize 10 coordination meetings of the 12 initially planned to monitor progress in implementing the NAP-AMR. The eighth and last meetings presented an opportunity to pause and reflect and to develop a sustainability plan for MTaPS-supported activities. Additionally, MTaPS supported the IPC TWGs to organize 8 meetings to monitor and evaluate IPC practices in Mali. The IPCAT2 tool has been used annually since 2020 to evaluate IPC core components at the national level. In 2023, IPCAT2 results indicated that two components (IPC program and surveillance of health care-associated infections) have improved since 2022, and Mali had a score of at least 50% on 4 of the 6 IPC components assessed at the national level. The average score increased from 50% in 2022 to 54% in 2023. The AMS TWG also held 4 regular meetings to monitor and evaluate AMS practices in supported HFs. The WHO tool has been used to monitor AMS program implementation at the national level during the last meeting in August 2023. The evaluation indicated a national score of 60% for the AMS program implementation and 85% for monitoring/surveillance and evaluation component of the evaluation. The lowest score was 31% for education awareness and training.

MTaPS supported the DGSHP and DPM to establish DTCs and IPC committees in 16 HFs. Following their establishment, the committees developed CQI plans for IPC and AMS practices. MTaPS assisted the GCMN-RAM and the DGSHP to organize 4 virtual meetings to monitor the implementation of IPC activities described in the 16 facility action plans. MTaPS also supported 5 HF supervision visits. MTaPS supported the DPM and the National Agency for the Accreditation and Evaluation of Health Facilities (ANAES) in organizing 5 virtual meetings and conducting 3 DTC supervision visits to each of the 16 HFs. In Quarter 4 Year 5, all MTaPS-supported DTC and IPC committees (16/16 DTC and 16/16 IPC committees) were functional and 100% (16/16) of MTaPS-supported HFs implemented CQI to improve IPC and AMS. Additionally, MTaPS supported the National Institute of Public Health, the DGSHP, and the DPM to develop the 2023–2027 NAP-AMR, the 2021–2025 AMS action plan, the 2023–2027 IPC strategic plan, an IPC training toolkit, an AMS training toolkit, and infectious diseases treatment

guidelines. MTaPS assisted the DGSHP to print and disseminate 500 copies of the national IPC strategic plan to the MOH, the Ministry of Environment, the Ministry of Animal Resources, the Ministry of Agriculture, finance and technical partners, and medical professional associations. Furthermore, MTaPS supported the development and implementation of e-Learning platforms, which are now installed and operational at both the DGSHP and the Faculty of Medicine and Odontostomatology. MTaPS supported the DPM to print and disseminate 1,520 toolkits, which include the facilitator guide, participant manual, and infectious diseases treatment guidelines to HCWs.

QUARTER I/YEAR 6 ACHIEVEMENTS AND RESULTS

RESULT AREA I: EFFECTIVE MSC OF AMR

Activity 1.1.1: Provide technical and operational support to the GCMN-RAM and its subcommittees.

MTaPS supported the GCMN-RAM to participate in the 6th Conference of the African Epidemiology Association (AfEA) and the 1st Congress of the Malian Society of Epidemiology (SOMEPI). The conference took place October 25–27, 2023. At the conference, the GCMN-RAM communicated MTaPS/Mali’s achievements and lessons learned. MTaPS also supported the GCMN-RAM to present the importance of the IPC committees in the health care space. An e-poster on strengthening MSC against AMR was also presented. Further, in collaboration with the GCMN-RAM, Breakthrough ACTION and FAO Emergency Centre for Transboundary Animal Diseases (ECTAD), MTaPS shared achievements and progress made in AMR in the country. These achievements were shared at a booth that was visited by more than 70 people, including the Malian Minister of Health and the United States Ambassador to Mali. More than 130 flyers were distributed to promote IPC and AMS practices.



The country program director of MTaPS Mali presents achievements to the Malian Minister of Health and the US ambassador during the AfEA 6th Congress in Bamako, October 25, 2023. Photo credit: Bréhima Simpara, MTaPS

Activity 1.2.1: Support the GCMN-RAM to celebrate World Antimicrobial Awareness Week

MTaPS, in collaboration with FAO ECTAD, the African Association for Research and Control of Antimicrobial Resistance (AARAM) and other national counterparts supported the One Health platform and the GCMN-RAM to organize events around WAAW.

Under the leadership of the Minister of Health, the WAAW launch ceremony was held on December 7, 2023. It was organized in collaboration with *Institut National de Santé Publique* (INSP), GCMN-RAM, FAO ECTAD, WHO and the AARAM. The theme for the celebration was “Preventing Antimicrobial Resistance Together.” In total, 120 people (33 female) from the human health, animal health, agricultural, and environmental sectors and USAID Mali participated in this ceremony. Other sensitization activities to promote rational use of antimicrobials included national television reporting and messages streamed across the bottom of televisions screens.

MTaPS distributed IEC materials during the launch ceremony and the FAO ECTAD–supported conference held at *Institut National de Formation en Sciences de la Santé* (INFSS) to sensitize stakeholders about AMR and promote AMS practices.

RESULT AREA 2: IPC

Activity 2.5.1: Support the IPC-WASH group and the DGSHP in monitoring implementation of IPC practices at HFs.

MTaPS supported the DGSHP to organize a virtual meeting to monitor implementation of IPC practices in HFs. During this meeting, the 16 supported HFs shared updates on their respective CQI plans and follow up on recommendations made during the last supervision visit. The main challenge is related to waste management and specifically sorting waste. In Quarter 1, only 5 of the 16 supported HFs were sorting waste per waste management SOPs. MTAps continues to sensitize and work with the HFs to correct these issues. To promote better waste management practices, meeting participants suggested holding a competition between HFs.

The monitoring activity showed that all the 16 MTAps-supported HFs are using standardized tools such as the COVID-19 scorecard tool. This tool contains a self-assessment component, which highlights areas to improve IPC practices. Although this tool was originally designed for COVID-19 prevention, it can be applied to other IPC practices. Of the 16 supported HFs, 15 are implementing CQI plan to improve IPC in the facility. The facility that is not implementing CQI did not hold any meetings during the quarter. To overcome this challenge, MTAps has been working with the director of that HF to sensitize him on the function of the IPC committee and the importance of IPC practices. As of Quarter 1, 49% of the activities within the CQI plans were implemented. The new CQI plan developed in 2023 was implemented during one quarter (October–December 2023). MTAps will continue to monitor the implementation of the CQI plans from January to June 2024. This monitoring will improve the percentage of activities within the CQI plans implemented.

RESULT AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

Activity 3.5.1: Support the DPM to disseminate IEC materials on AMS (posters and flyers).

MTaPS, in collaboration with USAID/Breakthrough ACTION, FAO ECTAD, and WHO, supported the DPM to disseminate 450 flyers and 675 posters on AMS. To better inform and raise awareness on AMS, materials were distributed to 50 entities (including national health directorates, hospitals, universities, pharmacists, and other sector stakeholders) during the December 2023 WAAW.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- Inviting highly respected and influential professionals to awareness events is crucial to ensuring quality discussions and increasing attendees’ interest. This was highlighted during the WAAW launch ceremony where the participation of high-level representatives from sectorial ministries, as well as university professors, was crucial for activity success. These high-level government officials and influential professors made dynamic and engaging speeches that included AMR prevention messaging. Further, since this was a high-visibility event, participants from various sectors, including human health, animal health, agriculture, and the environment, were engaged in event debates.
- Engagement of both the private sector and the educational sector are critical in preventing AMR. MTAps continues to build and strengthen relationships with these sectors; engaging the pharmaceutical private sector and academic institutions can be useful in mobilizing relevant organizations and individuals for AMS awareness events. For example, collaboration and involvement of local private pharmacist associations, the Pharmacy Department, and student associations greatly increased participation in the WAAW launch ceremony.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Provide technical and operational support to the GCMN-RAM and its subcommittees.	January–March 2024
Activity 3.5.1: Support the DPM to disseminate IEC materials on AMS.	January–March 2024
Activity 3.5.2: Support the GCMN-RAM, ANAES, and the DPM in monitoring implementation of AMS practices in HFs.	January–March 2024
Activity 2.1.1: Support the IPC-WASH group to develop an IPC operational plan for the human health sector.	January–March 2024

Table 13. Quarter 1, FY24, Activity Progress, Mali—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.1.1: Provide technical and operational support to the GCMN-RAM and its subcommittees.	5	5.4	MTaPS supported the GCMN-RAM to communicate MTAps/Mali's achievements and lessons learned during the 6th conference of AfEA and the 1st congress of the SOMEPI October 25–27, 2023. Achievements shared included e-Learning guide and flyers, IPC guidelines and SOPs, IPC strategic plan, waste management guidelines and SOPs, AMR flyers, and infectious disease treatment guidelines. Regarding lessons learned, the best collaboration with government and USAID implementing partners was highlighted.
Activity 1.2.1: Support the GCMN-RAM to celebrate WAAW.	5	5.4	MTaPS, in collaboration with FAO ECTAD, AARAM, and other national counterparts supported the One Health platform and GCMN-RAM to organize WAAW in December 2023.
Activity 3.5.1: Support the DPM to disseminate IEC materials on AMS.	5	5.4	Disseminated 450 flyers and 675 posters on AMS during WAAW.
Activity 3.5.2: Support the GCMN-RAM, ANAES, and the DPM in monitoring implementation of AMS practices in HFs.	5	5.4	Although the activity has not been implemented yet, MTAps supported the DPM to prepare for the virtual monitoring meeting and assist HFs in collecting, recording, and analyzing data on rational use of antibiotics. The meeting will take place in January 2024.
Activity 2.5.1: Support the IPC-WASH group and the DGSHP in monitoring implementation of IPC practices at HFs.	5	5.4	MTaPS supported the DGSHP to organize a virtual meeting to monitor implementation of IPC practices in 16 supported HFs.

MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

OVERVIEW

MTaPS' MNCH goal in Mali includes strengthening pharmaceutical regulatory systems, focusing on registration or marketing authorization for all products generally, and specifically for MNCH products. This is done by building the capacity of in-country stakeholders and supporting the implementation of the procedure manual for the registration of medicines for human use. To achieve this goal, MTAps Mali supports two result areas: improvement in the transparency and accountability of the country's pharmaceutical systems and effective implementation of pharmaceutical management systems that are interoperable and that link patients and products. These areas are directly aligned with MTAps' global objectives 1 and 3.

CUMULATIVE PERFORMANCE TO DATE

From December 2021 to April 2022, MTAps supported the DPM to conduct a 3-day training session focused on building data entry teams' capacity to use the DPM's electronic platform, named PRO-E-MED, for medicines registration. A total of 5,518 medicine registration dossiers were recorded in the tool, representing a completion rate of 110% of the previously noted backlog of an estimated 5,000 unrecorded medicine registration dossiers. Of these, 1,162 were for registration renewals.

MTaPS supported 2 meetings of the CNAMM in FY22. In May and September 2022, MTAps helped the DPM organize 2 sessions of the CNAMM in Mali, during which 786 dossiers (including 103 for MNCH products) were examined. After the update of the May 2022 edition of the Directory of Registered Medicines and Medical Products in Mali, 3,606 medicines, listed by form, dosage, and presentation, had valid registrations in Mali. From October to December 2022, MTAps supported the DPM to set up and operationalize an official website. MTAps supported the DPM to launch the website in June 2023. The Secretary General of the MOH chaired the launch ceremony. The USAID Mali Health Office Director was in attendance and highlighted the importance of this site for the safe use of pharmaceutical products and for improving the quality of health services in facilities. In February 2023, MTAps supported the DPM to evaluate the use of medicines in the NEML in 68 HFs, including 4 warehouses of the Central Medical Store, 2 university hospital centers, 2 regional hospitals, 3 regional health offices, 20 district hospitals, and 37 community-level health centers. Highlighted results include 49% of HFs having the latest edition of the NEML and 50% of drug managers using the latest edition. Only 6% (21/380) of prescribers have the latest edition; however, of those who have the latest edition 52% use it to prescribe drugs.

In September 2023, MTAps, in collaboration with the Global Fund project named *Unité de mise en Œuvre de Renforcement du Système de Santé*, supported the DPM in developing training tools on rational prescription and to organize a workshop to train 25 trainers (22 males and 3 females) on rational prescription of antimicrobials.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

Activity 5.4.6: Support the DPM to build the capacity of health practitioners on infectious disease treatment guidelines and appropriate prescribing (Year 5 activity).

MTaPS supported the DPM to develop training tools on the rational prescription of medicines and trained trainers in September 2023. The DPM started to use these training tools and trainers in developing health practitioners' capacity. In November 2023, 28 health practitioners (24 male, 4 female) from community health centers received training on infectious disease treatment guidelines and medicine appropriate prescribing.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 5.4.6: Support the DPM to build the capacity of health practitioners on infectious disease treatment guidelines and appropriate prescribing.	January–March 2024
Activity 1.1.2: Support the DPM to conduct a mid-term evaluation of the 2022–2026 National Pharmaceutical Master Plan.	January–March 2024
Sub-activity 3.1.6.2: Support the DPM to improve the functionality and operationalization of the website.	January–March 2024

Table 14. Quarter 1, FY24, Activity Progress, Mali—MNCH

Activity	MTaPS Objective(s)	MNCH Result(s)	Activity Progress
(Y5) Activity 5.4.6: Support the DPM to build the capacity of health practitioners on infectious disease treatment guidelines and appropriate prescribing.	5	5.4	MTaPS supported the DPM to validate the training materials on rational prescribing.
(Y6) Activity 1.1.2: Support the DPM to conduct a mid-term evaluation of the 2022–2026 National Pharmaceutical Master Plan.	1	1.1	Although this activity was not implemented in Quarter 1, MTAps supported the DPM to develop the TOR for the recruitment of consultants.
(Y6) Sub-activity 3.1.6.2: Support the DPM to improve the functionality and operationalization of the website.	3	3.1	Although this activity was not implemented in Quarter 1, MTAps supported the DPM to define the Marketing Authorization online application specifications document.

K. MOZAMBIQUE

FIELD SUPPORT ACTIVITIES

OVERVIEW

MTaPS' goal in Mozambique is to help the country strengthen its pharmaceutical regulatory system to ensure equitable, sustainable access to safe, effective, quality-assured, and affordable essential medicines and pharmaceutical services. This includes establishing an effective medical product vigilance system at ANARME, IP, that supports the detection, assessment, understanding, and prevention of AEs and other medical product-related safety problems to ensure that intended health outcomes are achieved while minimizing medication harm.

Establishing an effective and sustainable regulatory system under the leadership of ANARME, IP, is a high priority for Mozambique's pharmaceutical sector. MTaPS has worked with ANARME, IP, and other stakeholders to strengthen the regulatory system to provide safe and effective antiretroviral and other medicines, promote the appropriate use of antimicrobials, and increase accountability and transparency. This includes strengthening the active surveillance system for monitoring AEs and updating the PV management information system by implementing the electronic PViMS tool. MTaPS is supporting ANARME, IP, the national HIV program, and the national tuberculosis program (NTP) to implement ongoing active safety surveillance for patients on TPT and enable systematic monitoring of AEs for TPT regimens.

CUMULATIVE PERFORMANCE TO DATE

In PY2, the National Bioethics Committee on Health approved the protocol for implementation of active safety monitoring of the TLD antiretroviral therapy regimen. After protocol approval by the National Bioethics Committee on Health, ANARME, IP, and the national HIV program, with support from MTaPS, trained 292 HCWs (204 male, 88 female), along with 18 participants from the central level, on the protocol, SOPs, and proper data collection. In PY3, further support included patient enrollment and follow-up and quarterly on-site and virtual supervision by ANARME, IP, and the HIV program at nine study sites. The PViMS tool was adapted for use in data collection and analysis. By the end of the study on February 28, 2022, the targeted sample size of 3,000 people living with HIV had successfully been enrolled. MTaPS played a key role in enhancing the capacity of ANARME, IP, by providing support for causality assessment and data analysis. The efforts culminated in the development of a final study report, sent to ANARME, IP, showing the project's outcomes and findings.

ANARME, IP, and the HIV national program developed and validated the final report on TLD active safety monitoring in August 2023. Analysis of the study data showed that 3.17% (105/3,317) of patients had at least one AE recorded since their initiation on the TLD regimen. A total of 149 AEs were reported by 105 patients, with the most-recorded AEs being headache, insomnia, nausea, and skin rash. The 60 pregnant women on TLD enrolled in the study all had live births, and no suspected congenital anomalies were reported at birth. ANARME, IP, achieved the study objectives, including characterizing the AE profile among patients using TLD and estimating the incidence of AEs such as adverse pregnancy

outcomes. These results are useful in guiding the Ministry of Health and other stakeholders in regulatory and clinical decision making or actions. Patient education and clinician awareness on the recognition of signs and symptoms of AEs are crucial to prevent and promptly manage drug toxicities.

In PY3, MTaPS built upon its ongoing support to ANARME, IP, and the HIV program on active TLD safety surveillance to establish a similar safety surveillance system to actively monitor patients using INH and 3HP for TPT. ANARME, IP, and the national HIV and TB programs, with support from MTaPS, developed a protocol for TPT active surveillance, data collection forms, SOPs, and training materials that were approved by the National Bioethics Committee on Health, with further approval from the CDC in PY4 quarter 2 (March 2022). ANARME, IP, and the national HIV program, with support from MTaPS, trained national team as trainers and HCWs from the provinces to cascade the trainings to other HCWs as focal persons for the implementation at the site level.

Five HFs (four health centers and one hospital) in two provinces (Gaza and Maputo City) were selected as study sites. MTaPS periodically engaged with stakeholders, including ANARME, IP, the NTP, USAID Mission, the CDC and its implementing partners CCS and the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), and the Aurum Institute, to plan for implementation. MTaPS procured tablets required for facility-level data collection and management that were done using an adapted PViMS, and the focal health workers were trained on its use.

During PY5, four rounds of supervisory site visits were completed. Visits to the implementing sites were conducted by ANARME, IP, MTaPS, and CCS in Maputo City (I de Junho HF, Albasine HF, and Xipamanine HF) and EGPAF in Gaza Province (Chilembene and Mandlakazi), working with the provincial focal persons from Maputo City and Gaza provincial health services. The supervisions identified gaps in TPT active surveillance implementation and made recommendations to address them. In PY5 quarter 3, MTaPS guided ANARME, IP, in the revision of the protocol to drop the INH arm of the active monitoring program to a cohort event monitoring to accommodate new treatment guidelines provided by the Ministry of Health and to request to extend the study for more time to complete patient follow-up through September 2023 and analyze study data. The bioethics body approved the protocol deviation and an extension on the protocol implementation through July 2024.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

During the quarter, ANARME, IP, in coordination with MTaPS, organized and conducted the last round of site visits to the five study sites to close out the active monitoring on TPT with 3HP and to complete data collection and data quality checks to verify completeness of information on the forms and to collect the study materials from the implementing sites.

MTaPS continued to provide guidance to the team composed of ANARME, IP, and the national HIV program to manage the data on PViMS, including data cleaning, periodic review, and analysis of the collected data, as well as undertaking causality assessment process using the PViMS tool for any reported AEs.

OBJECTIVE 3: STRENGTHEN SYSTEMS FOR PROVIDING PATIENT-CENTERED PHARMACEUTICAL CARE AND SERVICES

Activity 3.1.1: Continue to provide technical assistance to implement an active PV program for safety monitoring of TPT scale-up in Mozambique (activity continuing from fiscal year 2023 [FY23])

Between November 6 and 17 at the Maputo City and Gaza Province sites, MTaPS supported the central-level study team in orienting the site teams on concluding patient follow-up and data collection and conducting the last joint supervision site visits. During the site visits, the national team reviewed the patient master cards and laboratory records and updated the study's forms with laboratory results and the other medications that had been prescribed to the enrolled patients.

All activities at the HF level relating to patient enrollment and follow-up and data collection have been completed. All study materials (tablets and forms) in the five HFs were collected by ANARME, IP. As recommended based on supervision visits, with MTaPS support, site staff cross-checked data from different HF sources (master cards and laboratory records) and updated the data in the study forms (both physical and electronic). Finalization of the data cleaning process is underway, with prioritization of variables related to causality assessment.

As of November 2023, with data cleaning, the study enrolled 441 patients who completed 2,255 follow-up visits. A total of 44 AEs were reported across the five study sites, with all the AEs confirmed as mild and managed at the facility level (table 15).

Table 15. Patients enrolled since the start of the TPT active surveillance system and follow-up visits

HF	Location (district, province)	Month patient enrollment commenced	No. of enrolled patients as of March 31, 2023 (Form A)	No. of patient follow-up visits as of November 2023 (Form B)	No. of reported AEs as of November 2023
Xipamanine	Nlhamankulu, Maputo City	August 2022	74	343	5
Albasine	KaMavota, Maputo City	August 2022	102	450	6
I de Junho	KaMavota, Maputo City	August 2022	89	516	31
Xilembene	Chokwe, Gaza	August 2022	64	339	1
Mandlakazi Rural Hospital	Chokwe, Gaza	August 2022	112	607	1
Total			441	2,255	44

ANARME, IP, and MTaPS completed the causality assessment in December. A summary of the assessment will be extracted from PViMS for use in the data analysis and interpretation of the study results and the compilation of the final study report.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
<p>Activity 3.1.1: Continue to provide technical assistance to implement an active PV program for safety monitoring of TPT scale-up in Mozambique (activity continuing from FY23)</p> <ul style="list-style-type: none"> ▪ Complete data analysis ▪ Generation of the TPT active surveillance report, validation with ANARME, IP, and partners, and finalization of the report ▪ Sharing results with stakeholders 	<p>December 2023–January 2024 January–February 2024 February–March 2024</p>

Table 16. Quarter I, FY24, Activity Progress, Mozambique—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
<p>Y4 activity 3.1.2/Y5 activity 3.1.1/Y6 activity 3.1.1: Continue to provide technical assistance to implement an active PV program for safety monitoring of TPT scale-up in Mozambique</p> <p>Activity description: Working with ANARME, IP, the TB program, IPs, and MTAps global expert University of Washington, continue to support activities to ensure successful implementation and completion of TPT active safety monitoring; assist in analysis and interpretation of data; conduct periodic supportive supervision; generate a final study report with lessons learned and recommendations.</p>	5.3	<p>Supportive-supervision visits were conducted for Maputo City sites from November 6 to 9 and for Gaza Province sites from November 13 to 17. In line with supervision recommendations, the patient records were cross-checked with study Forms A and B to identify and update missing information relevant to the study implementation. Data cleaning is ongoing and data analysis for final report writing has started. Causality assessment was completed.</p>

L. NEPAL

FIELD SUPPORT ACTIVITIES

OVERVIEW

In Nepal, MTaPS collaborates with the MOHP, DOHS, and DDA to strengthen pharmaceutical systems. Over the life of the project, MTaPS has provided technical assistance to revise the policy and legal framework, implement pharmaceutical best practices, and engage stakeholders from the public and private sectors to enhance the regulatory system and overall effectiveness of the pharmaceutical sector at the national and local levels. The program's evidence-based strategies have targeted priority gaps and used WHO tools, guidelines, and best practices and multipronged interventions to address interconnected challenges and make sustainable improvements in Nepal's pharmaceutical sector.

CUMULATIVE PERFORMANCE TO DATE

Since the inception of the MTaPS program in Nepal, the DDA undertook comprehensive initiatives to enhance pharmaceutical-sector regulatory capacities and governance and strengthen systems at all levels. Beginning with an analysis of organizational structures and pharmaceutical legislation in 2019, the DDA implemented the indicator-based regulatory maturity assessment applying the WHO GBT. In 2021 and 2022, MTaPS provided support to DDA, including staff competency mapping, specialized training courses to strengthen product registration and regulation, a GBT MALAP, and a proposal for institutional reorganization. Initial steps were taken to establish DDA QMS for the first time and to strengthen the existing Drug Administration Management System (DAMS). In collaboration with MTaPS, the DDA conducted baseline studies on adherence to GPP and GSDP, developed guidelines and indicator-based inspection tools, and drafted critical regulatory documents. In 2023, a pilot study of the SPARS was completed to evaluate its efficacy in strengthening medicine management in 352 public-sector HFs in 12 districts in 3 provinces. Through these efforts, the DDA has demonstrated dedication to continuous improvement and increased regulatory excellence to ensure the quality and safety of medicines and medical products in Nepal.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

Significant progress was made across various initiatives aimed at pharmaceutical system strengthening. In November and December 2023, two meetings were held with key stakeholders—including the Nepal Law Commission, MOHP, Ministry of Law, Justice and Parliamentary Affairs, and USAID Nepal—to advance the process of presenting the new and updated Drug Act to parliament for approval. Once approved, the DDA will complete all the indicators to reach the regulatory target of ML2 as well as two-thirds of the indicators for ML3. The PV IEC materials were approved and printed for distribution to HFs and the public. MTaPS printed the manuals and trainee and trainer guides for GPP and GSDP which it had developed earlier, and nationwide training was conducted on GPP for 555 pharmaceutical staff members (430 male, 125 female) and on GSDP for 296 wholesalers (249 male, 47 female). DDA inspectors conducted inspections of wholesalers and pharmacies using the new GPP and GSDP guidelines and the electronic inspection tools. MTaPS supported the Curative Service Division (CSD) in

training 51 hospital pharmacists (43 male, 8 female) in hospital pharmacy management in two provinces. MTaPS supported TWG meetings and workshops with the MOHP to finalize the updated hospital pharmacy directive and the new GHPP guidelines. The DDA expanded implementation of the QMS to the three DDA branch offices and supported development of a quality manual and SOPs for the branch offices. MTaPS addressed nonconformities from the first QMS internal audit of the DDA, and the DDA is now ready for ISO 9001:2015 external audit and certification.

MTaPS progressed well on the customization and adaptation of the new Drug Administration Management System 2 (DAMS2) software to replace the previous DAMS at the DDA. In collaboration with the DDA, MTaPS finalized 15 out of 19 recent technical requirements for the pharmacy and wholesaler registration modules in DAMS2. Based on the initial encouraging results of the SPARS pilot study, the CSD and local government requested the pilot to be extended for three months to include three SPARS visits totaling 352 facilities. MTaPS drafted reports on SPARS interrater reliability, impact assessment, and cost-effectiveness studies. A total of 59 journalists/media personnel (49 male, 10 female) from two remote regions participated in AMR sensitization workshops and impact assessment using FGDs. MTaPS' advocacy efforts continued with the MOHP to endorse the NAP-AMR 2023–2028 and align with broader efforts to address the challenges posed by AMR.

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Activity 1.2.1: Update the regulations, rules, and guidelines

To move forward the approval process of the drafted Drug Act to the parliament, MTaPS and the DDA organized two rounds of meetings in November and December 2023 with the Nepal Law Commission; MOHP; Ministry of Law, Justice and Parliamentary Affairs; and USAID Nepal. These efforts were expected to help to move forward the revised Drug Act, contributing to strengthening the DDA regulatory ML, as the legislative framework is crosscutting on all eight regulatory key functions, especially ensuring effective regulatory systems and processes, registration and marketing authorization, vigilance, licensing establishment, regulatory inspection, market surveillance and control, and clinical trials.

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICALS MANAGEMENT AND SERVICES INCREASED, INCLUDING REGULATION OF MEDICAL PRODUCTS

Activity 2.2.1: Strengthening regulatory capacity and maturity

MTaPS reviewed the progress in implementing the institutional development plan with DDA staff in preparation for their participation in the South-East Asia Region (SEARO) conference to discuss market authorization, regulatory inspection, and market control on October 23–25, 2023, at the WHO regional office. The development of a shared template for market authorization, regulatory inspection, and market control among five SEARO countries (Nepal, Sri Lanka, Maldives, Bhutan, and East Timor) was agreed upon; the template has yet to be finalized by the participants.



PV pamphlet showing precaution while taking medicine during pregnancy/breastfeeding

Activity 2.2.4: Strengthen PV at the national and provincial levels

MTaPS printed the approved Nepali-language PV IEC materials (pamphlets). Displaying PV IEC materials at HFs is intended to create public awareness, which plays a crucial role in ensuring the safe and effective use of medicines by monitoring, detecting, managing, and preventing ADEs.

Activities 2.2.5 and 2.2.6: Strengthen GPP and GSDP

Following USAID branding approval, MTAps printed the GPP and GSDP manuals, trainer and trainee guides, and GPP IEC materials. MTAps and the DDA trained 555 people (430 male, 125 female) in eight two-day GPP training courses in eight regions (Bhaktapur, Bharatpur, Biratnagar, Birgunj, Butwal, Kathmandu, Nepalgunj, and Pokhara). MTAps and the DDA also conducted nationwide seven two-day GSDP training courses for 296 participants (249 male, 47 female) in seven regions (Bharatpur, Biratnagar, Birgunj, Butwal, Kathmandu, Nepalgunj, and Pokhara). DDA inspectors conducted 2 wholesaler inspections and 10 GPP inspections using the electronic inspection tool. The GPP and GSDP training sessions aimed to enhance awareness among pharmacies and wholesalers regarding GPP and GSDP. The accompanying IEC materials were designed to foster public awareness, emphasizing key aspects such as proper storage of medicines, the importance of obtaining a bill when purchasing medications, the dispensing of prescription medicines strictly with a valid prescription, and the promotion of rational use of medicines.

Activity 2.2.7: Strengthen GHPP

MTaPS supported the CSD in conducting training in hospital pharmacy management for pharmacy personnel in Janakpur (14 males and 2 females) and Butwal (29 males and 6 females). Along with continued support to the MOHP TWG, a stakeholder workshop was conducted to finalize the draft hospital pharmacy directives and the GHPP guidelines. Stakeholder inputs were integrated into the draft directive and guidelines and forwarded to the MOHP for final approval and further processing. Establishing hospital pharmacy directives and guidelines ensures standardized and effective pharmaceutical services, while training in hospital pharmacy management is crucial for ensuring efficient and safe medication practices in HCFs.

Activity 2.2.8: Assist the DDA in developing a QMS

The document scanning and indexing work at the DDA pharmacy and industry registration sections was completed and the records and procedures were handed over to the DDA, which now has about 50,000 files recorded and filed in the new repository system. MTAps facilitated training on basic awareness of QMS at all three DDA branch offices (Birgunj, Biratnagar, and Nepalgunj) and assisted in drafting the quality manual and SOPs for all three branch offices as part of the process for obtaining ISO 9001:2015 certification. MTAps followed up with the DDA for approval of all drafted SOPs and addressing the nonconformities from the internal audit. The DDA is now ready for external audit toward the ISO 9001:2015 certification.

OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION FOR DECISION MAKING INCREASED AND GLOBAL LEARNING AGENDA ADVANCED

Activity 3.1.1: Implement pharmaceutical management information system, Pharmadex, for registration, inspection, importation and exportation, and PV

After approval from USAID, MTaPS continued the installation of networking and intercom systems at the DDA. A meeting with the financial comptroller general officer was held to finalize the digital payment module in DAMS2 for pharmacy and wholesaler registration. The local vendor submitted the feasibility and complexity report for integrating local features into the DAMS2 software, which is being reviewed by MTaPS and the DDA. MTaPS supported recruitment of five helpdesk consultants at DDA central, and branch offices have been actively supporting applicants. Migration of selected DAMS data to DAMS2 is completed. DDA proposed 70 new requirements applicable to all five modules of DAMS2. In consensus, 19 requirements for the pharmacy and wholesalers' registration module were considered critical, of which 15 were finalized; work is ongoing on the remaining requirements. However, a critical request from the DDA is still pending, i.e., multiple modification requests in DAMS2, which caused postponement of the go-live date. Developers have estimated that resolving this issue might take up to three months. As a result, the implementation timeline is under review to accommodate and expedite the necessary adjustments for the official launch of DAMS2. Implementation of DAMS2 will enable comprehensive tracking and performance reporting of medicine registrations, pharmacy and wholesaler activities, and inspections for effective regulatory oversight and ensuring enhanced accountability in the health care system.

OBJECTIVE 5: PHARMACEUTICAL SERVICES, INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE TO ACHIEVE DESIRED HEALTH OUTCOMES, IMPROVED

Activity 5.1.1: Strengthen medicine management in government sector HFs

The CSD and the local governments requested MTaPS to extend and expand the SPARS pilot study to cover additional facilities in the 12 pilot districts, reaching the pilot study total of 352 facilities with three visits. MTaPS made a presentation on the SPARS method and impact to implementing partners and health ministry representatives at a meeting in Bagmati Province to promote sustainability and uptake of SPARS by the provincial and local levels. The SPARS impact study, interrater reliability study, impact assessment study, and cost-effectiveness study were drafted to be finalized by MTaPS next quarter. Enhancing medicine management strengthens the promotion of best practices by building the capacity of HFs.

Activity 5.3.1: Improve AMR containment

MTaPS held AMR sensitization workshops in the hilly region of Nepal (Khadbhari, Sankhuwashabha) with 22 journalists (19 male, 3 female) and in Karnali Province with 37 media personnel (30 male, 7 female) from three districts (Jumla, Mugu, and Kalikot). MTaPS also conducted four impact assessments of the AMR sensitization workshops in Itahari, Koshi Province, with 10 media personnel (3 male, 7 female); Dhangadhi, Sudurpaschim Province, with 12 media personnel (8 male, 4 female); Surkhet, Karnali Province, with 8 media personnel (4 male, 4 female); and Gorahi-Dang, Lumbini Province, with 8 media personnel (4 male, 4 female). A technical report on the national implementation of an AMR sensitization workshop package for the media was submitted to USAID. MTaPS participated in a rally organized by MOHP and OH stakeholders as part of the WAAW. MTaPS took a lead in preparing the AMR containment awareness placards and distributed them to the participants of the rally to promote awareness on AMR. With MTaPS' support, the MOHP advocated for endorsement of the NAP-AMR 2023–2028 in a presentation to the parliament cabinet. Raising awareness on AMR containment is

crucial, as it educates communities about the risks of AMR, promotes rational antibiotic use, and aids in combating the growing public health threat.

BEST PRACTICES/LESSONS LEARNED

- Strengthening regulatory ML is a long-term process, and the DDA will require continuing support extending beyond the current support provided by MTaPS. Although substantial progress has been made in addressing key MALAP indicators, the DDA will need continued assistance and collaboration with external partners to achieve ML3 by 2027. This continued assistance is vital to ensure the DDA’s optimal regulatory authority functions, aligning with the broader objectives of strengthening the pharmaceutical system as outlined in the Nepal Health Sector Strategic Plan 2023–2030.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 2.2.4: Strengthen PV at the national and provincial levels <ul style="list-style-type: none"> ▪ Distribute IEC materials (posters) 	January 2024
Activity 2.2.5: Strengthen GPP <ul style="list-style-type: none"> ▪ Distribute IEC materials (posters) 	January 2024
Activity 3.1.1: Implement pharmaceutical MIS/DAMS2 at the DDA <ul style="list-style-type: none"> ▪ Make final decision to go live and implement DAMS2 ▪ Finalize the e-learning modules on DAMS2 ▪ Technical report on localization and implementation of DAMS2 in the DDA ▪ Complete the installation of networking and intercom systems ▪ Address remaining four requirements in DAMS2 for pharmacy and wholesalers’ registration module 	January 2024
Activity 5.1.1: Strengthen medicine management in government sector HFs <ul style="list-style-type: none"> ▪ Technical report on SPARS impact study and cost-effectiveness study ▪ Technical report on SPARS interrater reliability study 	January 2024
Activity 5.3.1: Improve AMR containment <ul style="list-style-type: none"> ▪ Finalize a report on the impact assessments 	January 2024

Table 17. Quarter I, FY24, Activity Progress, Nepal—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 1.2.1: Update Drug Act, regulations, rules, and guidelines</p> <p>Activity description: Finalize the Drug Act, code on sales and distribution, and selected and prioritized regulations and guidelines</p>	1.2	MTaPS Nepal and the DDA collaborated to advance a drafted drug law, conducting two discussion meetings in November and December 2023. Participants included the Nepal Law Commission, MOHP, Ministry of Law, Justice and Parliamentary Affairs, and USAID Nepal. These efforts aim to move forward the revised Drug Act and enhance the DDA's regulatory ML from MLI to ML2.
<p>Activity 2.2.1: Strengthen regulatory capacity and maturity</p> <p>Activity description: Implement regular MALAP updates toward increasing the ML</p>	2.2	MTaPS and the DDA reviewed progress in implementing the institutional development plan ahead of DDA staff's participation in the SEARO conference to discuss market authorization, regulatory inspection, and market control on October 23–25, 2023, at the WHO regional office. Discussions during the conference included creating a shared template for market authorization, regulatory inspection, and market control among SEARO countries (Nepal, Sri Lanka, Maldives, Bhutan, and East Timor); the template has yet to be finalized.
<p>Activity 2.2.4: Strengthen PV at the national and provincial levels</p> <p>Activity description: Streamline PV reporting and finalize SOP with associated tool to increase the ML</p>	2.2	Approved PV IEC materials which aim to raise awareness were printed and distributed to HFs. Their display is crucial for promoting the safe and effective use of medicines by monitoring, detecting, managing, and preventing ADEs, contributing to improved medication safety and patient care in Nepal.
<p>Activity 2.2.5: Strengthen GPP</p> <p>Activity description: Develop GPP e-learning course and initiate implementation of GPP strategy, including community awareness</p> <p>Activity 2.2.6: Strengthen GSDP</p> <p>Activity description: Finalize GSDP guidelines, inspection tool, and e-learning material to train wholesalers</p>	2.2	MTaPS, in collaboration with the DDA, printed GPP and GSDP manuals and trainer and trainee guides. Nationwide, the DDA and MTAps conducted eight two-day GPP training sessions for 555 individuals in Bhaktapur, Bharatpur, Biratnagar, Birgunj, Butwal, Kathmandu, Nepalgunj, and Pokhara. Additionally, seven two-day GSDP training courses were organized in Bharatpur, Biratnagar, Birgunj, Butwal, Kathmandu, Nepalgunj, and Pokhara, involving 296 participants. DDA inspectors performed 2 wholesaler and 10 GPP inspections, utilizing an electronic inspection tool. GPP IEC materials were also printed.
<p>Activity 2.2.7: Strengthen GHPP</p> <p>Activity description: Update the GHPP directive and guidelines and develop the GHPP capacity-building strategy</p>	2.2	MTaPS supported the CSD in providing hospital pharmacy management training in Janakpur (16 participants [14 male, 2 female]) and Butwal (35 participants [29 male, 6 female]) on October 8 and 13, respectively. Ongoing support to the MOHP included finalizing the hospital pharmacy directive and guideline in a stakeholder workshop on November 2, 2023. Stakeholder inputs were incorporated into both drafts, which were forwarded to the MOHP for further processing.
<p>Activity 2.2.8: Assist the DDA in developing a QMS</p> <p>Activity description: Finalize QMS manual and SOP toward ISO 9001:2015 certification</p>	2.2	MTaPS consultants completed scanning and indexing at DDA's pharmacy and industry registration sections, transferring records and procedures to the new repository system. QMS training sessions were organized at the DDA's three branch offices in October, and support was provided in drafting the quality manual and SOPs. MTAps submitted the manual and SOPs to the DDA's branch offices and followed up with the central DDA in addressing audit nonconformities.

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 3.1.1: Implement pharmaceutical management information system Pharmadex for registration, inspection, importation and exportation, and PV</p> <p>Activity description: Finalize and implement DAMS2</p>	3.1	A meeting with the financial comptroller general officer was held for finalizing the digital payment module in DAMS2. Helpdesk consultants at the DDA are active, migration of selected DAMS data to DAMS2 is completed, and the DDA proposed 70 new requirements for customization of DAMS2, out of which 19 priority ones for pharmacy and wholesalers' registration modules are being addressed. USAID-approved networking and intercom system installation at the DDA is ongoing.
<p>Activity 5.1.1: Strengthen medicine management in government sector HFs</p> <p>Activity description: Implement SPARS pilot study in selected districts</p>	5.1	Responding to CSD requests, SPARS was expanded to additional municipalities within the 12 pilot districts. MTaPS presented SPARS to implementing partners and health ministry representatives in Bagmati Province to promote sustainability and uptake of SPARS at the provincial and local levels. The SPARS impact study, interrater reliability study, and cost-effectiveness study are being finalized.
<p>Activity 5.3.1: Improve AMR containment</p> <p>Activity description: Situational analysis and sensitization workshop package for journalists</p>	5.3	In hilly regions of Nepal, AMR sensitization workshops to media were implemented, engaging 22 journalists in Khadbhari, Sankhuwashabha District, Koshi Province, and 37 media personnel in Jumla, Karnali Province, in October and November 2023. Impact assessments of these workshops were conducted in four provinces: Itahari, Dhangadhi, Surkhet, and Gorahi-Dang. MTaPS actively participated in the WAAW and supported MOHP in advocating for the endorsement of the NAP-AMR 2023–2028 to the parliament cabinet.

M. NIGERIA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

MTaPS' goal in Nigeria is to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. MTAps supports three result areas—effective MSC on AMR, IPC programs, and use of antimicrobial medicines optimized—that align with the 2015 WHO global action plan on AMR and Nigeria's NAP-AMR, which include IPC and AMS as two key strategic objectives and MSC as a key approach.

CUMULATIVE PERFORMANCE TO DATE

MTaPS' GHSA work in Nigeria is guided by the WHO IHR benchmark tool (2019). MTAps' interventions support the country in moving to higher JEE capacity levels across the 3 result areas. As of September 2023, MTAps has supported the achievement of 29 (47%) of the 62 WHO benchmark actions—7 contributing to MSC/AMR, 13 to IPC, and 9 to AMS.

In MSC, the country completed all 4 benchmark actions in capacity level 2 (in collaboration with other partners). MTAps supported the achievement of 2 of the 4 actions in capacity levels 3 and 4 and 1 of the 5 in capacity level 5. With MTAps' support, the country is on track to complete 100% of level 4 and 80% of level 5 benchmark actions by the end of FY24 (PY6). Following the review of the performance of the 2017–2022 NAP-AMR, MTAps is working with the AMR Coordinating Committee and other partners, including WHO, FAO, WOHAI, and the United Nations Environment Programme (UNEP), to coordinate the development of the new 2023–2028 NAP-AMR for the country. At the subnational level, MTAps supports the state-level AMR TWGs in Kebbi and Enugu States and the corresponding facility programs in 7 facilities.

In IPC, MTAps' support contributes to the country moving toward JEE level 3 (JEE v2.0), with MTAps contributing to three of the 5 benchmark actions (60%) in level 2 and all (100%) of the 6 actions in level 3. MTAps supported the AMR TWG secretariat to develop the national IPC strategic plan in FY22 (capacity level 3 benchmark action). This was followed up by the IPC for viral hemorrhagic fever (VHF) manual in FY23, the systematic review and meta-analysis of HCAI in Nigeria, and the development of the national protocol for bloodstream infections (BSI) surveillance to support HCAI surveillance in the country. MTAps' key achievements at the facility level include the establishment of IPC programs in 7 supported private and public facilities in Enugu and Kebbi States. Key outcomes include the movement of facilities from “inadequate” during the FY22 baseline assessments conducted using the WHO IPCAF to “intermediate” after the reassessment in FY23. Through an in-person, competency-based training approach, the capacity of 59 members (21 male, 38 female) of the 7 facility teams improved on key technical, managerial, and leadership components for effective coordination and management of the IPC program across the state, including the use of WHO assessment tools to self-assess and develop improvement plans. As a result, step-down trainings were conducted by the facility teams for 1,967 staff

(836 male, 1131 female). MTaPS provides ongoing monitoring of these programs remotely and through mentorship visits to the facilities.

In AMS, MTaPS supported the country's AMR TWG secretariat to implement 4 benchmark actions in capacity level 2, 3 in capacity level 3, and 2 in capacity level 4 with the goal of moving the country's AMS program baseline JEE score to level 4. With MTaPS' support, the country is on track to achieve 100% completion of level 4 benchmark actions by the end of FY24 and to position itself for JEE level 5 AMS capacity.

At the state level, AMS programs were established across 3 facilities in Enugu State and 4 facilities in Kebbi State. After the AMS programs were established in the supported facilities, AMS/IPC hybrid committees were established in Enugu and Kebbi States to enhance the functionality of the facility AMS and IPC teams. The laboratories at the facilities in Enugu State and Federal Medical Center Birnin-Kebbi have begun developing hospital antibiograms to help streamline antibiotics prescription at the facilities and guide empirical antibiotics prescription at the facility level. MTaPS supported the AMU-PPS in 6 supported facilities. All facilities surveyed reported access groups of antibiotics in the range of 18%–53%, which is under the WHO-recommended minimum of 60%. MTaPS provided feedback on the AMU-PPS outcome to facility AMS teams during monitoring and supportive supervisory visits for updating their facility AMS plans. This feedback guided facility AMS teams to support the monitoring of antibiotics prescribing and more effective engagement with prescribers and other health care practitioners across supported facilities. Follow-up PPS was conducted in FY23 and 4 out of the 6 facilities surveyed recorded improvements in the proportion of access groups of antibiotics, with 1 of them exceeding the WHO minimum of 60%.

MTaPS supported the country's AMR TWG to develop a national One Health AMS policy and strategy. This document will provide strategic direction for AMS activity design and implementation across health care levels in both the human and animal health sectors in Nigeria. A critical step in strengthening the AMS program in a country is the development of the WHO AWaRe categorization of antibiotics used in the country to help control the misuse of lifesaving antibiotics. MTaPS supported a meta-analysis of published data on resistance and sensitivity patterns of common microbes to commonly used antibiotics in Nigeria. It then used the outcome of the meta-analysis for input during the categorization of antibiotics based on WHO AWaRe groupings in April 2023. MTaPS is collaborating with the Federal Ministry of Health (FMOH) and NEML committee to ensure that the AWaRe list is incorporated into the NEML during the ongoing review of the NEML.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

The 2023–2028 NAP, including the monitoring framework, is at an advanced stage of completion. Once finalized, this NAP-AMR will guide the implementation of AMR programs in the country for the next 5 years. MTaPS supported the activities of the NAP 2.0 development committee by providing leadership and coordination for the development of the new plan through active participation in all the meetings and workshops leading up to the costing of priority activities and development of an M&E framework. MTaPS, in conjunction with the national secretariat, strengthened facility AMS and IPC programs across the 7 supported facilities in Enugu and Kebbi States and supported follow-up assessments for both IPC and AMS core elements and AMU-PPS to measure the impact of AMS interventions in the facilities.

MTaPS, in collaboration with the FMOH, supported the development of the WHO AWaRe list of antibiotics for the country from the meta-analysis of published data on resistance and sensitivity patterns of common microbes to commonly used antibiotics in Nigeria. With MTAps' support, the country developed the national manual on IPC for VHF to enhance safety of health workers and developed the BSI surveillance protocol to expand HCAI surveillance actions in the country.

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support the national AMR secretariat to develop the 2023–2028 NAP-AMR with costed implementation plan.

Following the adoption of the road map developed in PY23 Quarter 4, MTAps—in conjunction with the quadripartite ministries of the national AMR TWG secretariat and other development partners such as WHO and FAO—led the development of priority activities for each of the 6 thematic areas, namely, governance, awareness, stewardship, surveillance, research, and IPC, as well as the monitoring framework for the new plan. Following this, MTAps provided technical support for costing of these priority activities using WHO costing tool. The draft is being finalized, with plans for conclusion in Quarter 2.

Activity 1.2.1: Continue to build managerial capacity within the AMR-TWG and its subcommittees.

MTaPS commenced the engagement process for the consultant that would lead the capacity strengthening of M&E officers from the quadripartite ministries using the M&E framework from the zero draft of the new NAP. This activity will commence following the finalization of the M&E framework.

RESULT AREA 2: IPC

Activity 2.1.1: Support IPC governance at the national and state levels.

During the October 24–28, 2023, NAP AMR Operational Plan workshop, MTAps supported the country with the development of IPC, Biosecurity, WASH, Research, and Governance intervention areas and activities for inclusion in the NAP AMR 2.0. Subsequently, MTAps provided support for the costing of the IPC, Biosecurity, WASH, Research, and Governance activities during the follow-up costing workshop between November 5 and 11, 2023. MTAps further supported the finalization workshop for alignment of IPC, Biosecurity, WASH, Research, and Governance outputs from the planning and costing workshops into the working version of the NAP-AMR 2.0 document. The documents have been included in the finalized NAP-AMR 2.0 for implementation by the country and stakeholders.

Activity 2.1.2: Support for institutionalization of capacity strengthening on the developed national IPC for VHF guidelines for safety of health workers in health facilities.

MTaPS developed the scope of work for a consultant from the NCDC's pool of state IPC practitioners to support the provision of on-the-ground support, mentoring, and training on the developed IPC for VHF manual, working alongside the state IPC focal persons and the facility IPC teams. This begins the process of adoption of the IPC for VHF manual and its dissemination to health facilities on the NCDC's network.

Activity 2.1.3: Strengthen HCAI surveillance in human health sector.

MTaPS developed the scope of work for the development of a manuscript from the completed HCAI systematic review, meta-analysis, and rapid assessment of 6 tertiary health facilities' capacity for HCAI surveillance in the country. The manuscript development is prioritized for Quarter 2 and Quarter 3 of FY24.

Activity 2.2.1: Strengthen capacity of HCF IPC teams' leadership to sustainably implement IPC guidelines using multimodal strategies.

In Quarter I FY24, MTAps—in collaboration with the national AMR-TWG secretariat—developed the scope of work for a local IPC expert and mentor to continue to provide support to the leadership of health facilities for facility-driven step-down trainings of newly employed and other health workers in MTAps-supported facilities in Enugu and Kebbi States.

Activity 2.5.1: Strengthening IPC core components and the functionality of IPC committees in supported hospitals.

During November and December 2023, MTAps, in collaboration with the national AMR TWG secretariat, developed the scope of work for a local IPC expert and mentor who will mentor IPC teams across 7 supported facilities in Enugu and Kebbi States. The mentoring visits planned for Quarter 2 and Quarter 3 of FY24 will provide on-the-job support to facility IPC teams on core IPC components.

RESULT AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

Activity 3.1.1: Strengthen institutional and HR capacity to manage AMS programs.

MTaPS participated in a second workshop organized by the FMOH and the NEML committee in November 2023 to advance the review process for the NEML. During this workshop, the first list of essential medicines for children was reviewed for inclusion into the NEML, and MTAps made a case for the incorporation of WHO AWaRe list for children. The final list will be disseminated across MTAps-supported facilities.

Activity 3.5.1: Strengthen the implementation of AMS programs in all MTAps-supported facilities.

MTaPS support for AMS programs continued with the engagement of AMS consultants who will provide support for facility AMS programs in Enugu and Kebbi states. They will consolidate and support interventions tailored toward improving facility AMS core elements and PPS results. The engagement process was concluded, and the two consultants have been onboarded.

BEST PRACTICES/LESSONS LEARNED

- Sustained advocacy is necessary to ensure the continued support of facility management for IPC programs in their facilities, as seen with Federal Medical Centre Birnin Kebbi, where the facility management is now more willing to take on the provision of funds for capacity building of staff on IPC.
- The WHO NAP Costing Tool, which MTAps supported the use of for the development of the NAP AMR 2.0, can be applied to costing of other projects or even facility-level activities.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Validation/Ministerial Presentation of NAP 2.0	March 2024
Launch of NAP 2.0	March 2024
AMS consultant meeting	February 2024
Training of M&E officers from the quadripartite ministries	March 2024
IPC mentor engagement	March 2024
HCAI surveillance draft manuscript development meeting	March 2024

Table 18. Quarter I, FY24, Activity Progress, Nigeria—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
<p>Activity 1: Emergency supply of IPC commodities. Activity description: Identify and map COVID-19 treatment centers as last-mile distribution points. Sample text.</p>	1.1, 2.3, 4.1, 5.3	2.2, 3.2	MTaPS developed emergency supply chain preparedness and response strategy identifying strategic objectives, key interventions, and expected results considering the WHO pillar 8 for COVID-19 rapid preparedness and response guidelines. The strategic plan has been submitted and is being used by the MOH to develop and implement activities.
<p>Activity 1: Development of the new 2023–2028 NAP-AMR, including monitoring framework and cost of new plan. Activity description: MTaPS is working with the AMR coordinating committee and other bilateral and multilateral partners to coordinate the process.</p>	5.4	1.1	The development of the 2023–2028 NAP is at an advanced stage, with MTaPS providing the necessary leadership and coordination for the process. The strategic plan, operational plan, and M&E framework are being finalized for validation and sign-off by the Minister.
<p>Activity 2: Capacity strengthening for M&E officers in the AMR TWG Activity description: The capacity of M&E officers in the quadripartite sectors will be built for effective monitoring of work plan activities in their various sectors.</p>	5.4	1.2	The training of the M&E officers will be based on the finalized monitoring framework developed for NAP 2.0, and this will come up in Q2 FY24.
<p>Activity 3: Development of AWaRe categorization of antibiotics Activity description: Following the completion of categorization of essential antibiotics in Nigeria into the AWaRe categories based on local evidence of sensitivity and resistance profile of the antibiotics, this list is expected to be integrated into the NEML.</p>	5.4	3.1	MTaPS participated in a second review meeting of the NEML committee in November 2023 to facilitate the integration of WHO AWaRe classification for children into the NEML.
<p>Activity 4: AMS mentors and resource persons Activity description: Mentoring and supportive supervision in Enugu and Kebbi States for facility AMS teams</p>	5.4	3.5	MTaPS will continue to support this activity in Enugu and Kebbi States with the engagement of the consultants that will provide this support in FY24.
<p>Activity 5: Support the development of national IPC for VHF guidelines for safety of health workers.</p>	5.4	2.1	The mentors who will lead this activity are currently being engaged.
<p>Activity 6: Strengthen HCAI surveillance in human health.</p>	5.4	2.1	Initial engagement with NCDC for the development of the manuscripts was completed with a plan in place for the development of the knowledge management products.
<p>Activity 7: Strengthening IPC core components and functioning of committees</p>	5.4	2.5	The mentors that will lead this activity in FY24 are being engaged.

N. PHILIPPINES

FIELD SUPPORT (TB AND FP) ACTIVITIES

OVERVIEW

In the Philippines, MTaPS provides TA and capacity-building support to the DOH to institutionalize an integrated and effective procurement and supply chain systems for HIV, TB, FP, and other health program commodities; to establish fully functional PV and product registration systems; and to improve pharmaceutical services to ensure patient safety and improve health outcomes.

CUMULATIVE PERFORMANCE TO DATE

MTaPS supported the DOH in developing a 3-year (2018–2022) supply chain strategy; facilitated the inclusion of articles into UHC regulation to ensure policy support for supply chain reforms; developed a supply chain road map for UHC law implementation; and designed an inventory strategy for all levels. MTaPS developed supply chain workforce needs currently used by the DOH to select and hire skilled staff. MTaPS has developed and delivered several supply chain and PV courses, and the contents are currently being uploaded to the DOH e-Learning Academy. MTaPS supported the DOH in introducing and rolling out an end-to-end eLMIS to enhance supply chain visibility and efficiency, including for COVID-19 vaccines. To date, a total of 216 warehouses at the central (7) and regional (28) levels, LGUs (59), and SDPs (122) have functioning eLMIS. MTaPS is continuously collaborating with other agencies such as Philippine Business for Social Progress (PBSP), the Global Fund’s principal recipient, and WHO to leverage resources for eLMIS implementation. In total, MTaPS has supported solicitation of USD 2,181,722.35 from non-USAID sources in support of the eLMIS implementation.

MTaPS also enhanced the patient safety monitoring system, the PViMS, including interoperability with VigiFlow, and supported the DOH and the Philippine FDA in rolling it out at targeted TB facilities. Since the start of the PViMS rollout in PY3 (FY21), MTaPS has been able to reach 100% (199) of the TB facilities. To date, 597 AEs have been reported through PViMS. Additionally, MTaPS supported the DOH in analyzing stock information for key tracer TB, FP, and HIV commodities, starting in PY3 (FY21). MTaPS also supported the FDA in updating the national PV policy and guidelines to ensure that PV is supported by a comprehensive set of policy provisions with the necessary mandate for implementation. MTaPS facilitated the registration of selected HIV and TB medicines to make them available for use.

MTaPS provided TA to DOH and the Commission on Population and Development in updating and finalizing a warehouse operation manual (WOM) and training of staff from different levels to roll out its use. MTaPS supported the long-term estimations of quantity and budget requirements for TB, HIV, and FP commodity procurements of the DOH. MTaPS also provided TA in the development of quantification guidelines and conducted a series of quantification training sessions for the DOH. Furthermore, because of the capacity-building activities conducted and tools provided for stock analysis by MTaPS, the DOH has since been independent in processing stock data and oriented selected regions on stocks data analysis.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.1: Support the DOH in establishing a working PSCM governance mechanism and develop the five-year (2024–2028) supply chain strategy.

MTaPS facilitated sustainability and transition workshops with DOH Bureaus, USAID, USAID IPs, PBSP, World Bank, Asian Development Bank, WHO, UNICEF, and Jhpiego. During the workshop, an estimated value of USD 800,000 was pledged by PBSP. Other donors and partners provided their commitment to allocate funds and provide TA to DOH for eLMIS sustainability in the coming years.

During the transition and sustainability workshop, MTAps presented the proposed PSCM governance structure and the recommended coordination mechanisms for the overall PSCM strengthening initiatives including eLMIS implementation. MTAps gathered feedback from stakeholders and finalized the TOR for the National PSCM Stewardship and Oversight Council, including the eLMIS Governance Committee and the National Demand Planning and Allocation Committee, and shared these with the DOH. The proposed structure and TORs will help the DOH in finalizing the Department Personnel Order(s) and Department/Administrative Order(s) necessary to institutionalize the governance mechanism to efficiently operate the PSCM. MTAps will continue to follow up with the DOH for the next steps in officially approving the structure and TORs through policies.

MTaPS is supporting the DOH in developing a 5-year (2024–2028) National Strategy for PSCM. MTAps engaged a local organization, Procurement and Supply Institute of Asia (PASIA), and conducted key informant interviews and gathered information from different DOH offices to analyze the current state of PSCM and the implementation progress of the 2019–2023 National Strategic Plan. MTAps, the DOH, and PASIA organized a consultative workshop attended by staff from the central and regional DOH to collaboratively identify strategies that align with the changes in the Philippine health system.

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT AND SERVICES INCREASED, INCLUDING REGULATION OF MEDICAL PRODUCTS

Activity 1.2.1: Support the DOH in supplementing the WOM, considering recent system design.

MTaPS drafted contents to be included as addendum in the WOM focusing on the recently designed inventory control systems. MTAps also drafted WOM content on storage considerations for sites with insufficient warehouse capacity, particularly at LGUs and rural health units (RHUs), and on procedures for regular data analysis practices to ensure that stock data is analyzed and coordinated across all levels of the supply chain. This additional content in the WOM is pending review and approval by the Supply Chain Management Service (SCMS). Once cleared, the SCMS plans to issue a department memorandum to mandate and implement the additional provisions in the WOM to CHDs, LGUs, and RHUs.

Activity 1.2.2: Facilitate capacity development at the central and CHD levels on the updated WOM.

MTaPS collaborated with the SCMS and identified a pool of trainers at the central level who will be trained on the proposed inventory control systems and WOM addendum. Once trained, the candidates will capacitate the CHD staff in rolling out the WOM addendum and related changes. In addition, it was

agreed that the training will be conducted after the release of the Department Memorandum for eLMIS implementation.

Activity 1.2.3: Facilitate the engagement of LTAPs in supporting supply chain initiatives.

MTaPS conducted information sessions to identify more potential LTAPs from the nongovernment sector who can provide services to the DOH, regions, and LGUs on SCM strengthening (e.g., eLMIS scale-up, WOM implementation, and SCM trainings on DOH standards). Various organizations, such as the Philippine Pharmacist Association (PPhA), Philippine Association of Colleges of Pharmacy, and PASIA expressed interest in becoming LTAPs to support the public sector. The DOH SCMS is interested in developing a structured certification program on public health supply chain as in-service training and on the integration of procurement and supply chain in the academic curriculum as pre-service training with the LTAPs scheme. MTaPS will continuously coordinate with other DOH offices to formalize the LTAPs scheme and ensure ownership. MTaPS is also finalizing the upload of more e-Learning content designed primarily for government health workers—such as PSCM Overview, PSS, Warehouse Management, Quantification of Health Commodities, and PV courses for upload to the DOH e-Learning Academy—which will also be taken by LTAPs.

OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION FOR DECISION MAKING INCREASED AND GLOBAL LEARNING AGENDA ADVANCED

Activity 1.3.1: Support the rollout of eLMIS at selected LGUs and SDPs.

MTaPS supported the rollout of eLMIS to 106 additional sites (36 LGUs and 70 SDPs). To date, eLMIS is functional in 214 implementing sites, comprising 7 central warehouses, 28 regional warehouses, 57 local warehouses, and 122 SDPs. One notable achievement this quarter is the full deployment of eLMIS in CHD Davao in all LGUs and RHUs across the region. This allows the region to enhance supply chain visibility in real-time. The deployment of public health pharmacists to all RHUs presented an opportunity to facilitate the use of the eLMIS in all facilities in the country. To support the utilization of eLMIS in all implementing sites, MTaPS assisted the DOH in drafting the eLMIS monitoring checklist. This checklist was piloted in November and December 2023 in CHD Davao, CHD Cebu, and selected LGUs. The information and lessons generated will be used to update the checklist to advance the eLMIS implementation. Furthermore, MTaPS drafted the TOR requested by the DOH to guide the public health pharmacists on the transition from the Pharmaceutical Management Information System (PMIS) to eLMIS in preparation for Phase 4 implementation to RHUs. MTaPS also improved the stock data analysis tool to match the extracted data from PMIS and eLMIS and facilitate stock status analysis at all levels of the supply chain for decision making.

MTaPS facilitated a supply chain data analysis workshop with the DOH's PD, PS, SCMS, DPCB, Field Implementation and Coordination Team (FICT), and CHDs in October 2023. One of the objectives of the workshop was to share the Sustainable Development Goal and Program Expenditure Classification supply chain indicators to highlight the need to further discuss and agree with different offices the key parameters, calculations, list of key tracer products, and data sources for said indicators. Once the offices have further discussed and agreed on the parameters and data sources, an Administrative Order will be issued to facilitate the collection of data and the analysis of said indicators.

MTaPS assisted the DOH in updating the eLMIS frequently asked questions (FAQ), defining common issues/terms encountered by users during the Phase 3 implementation. The updated FAQs improve users' experience in utilizing eLMIS. MTAps further improved the online forms necessary to optimize the support activities, such as the eLMIS deployment master file and lessons learned repository, among others.

OBJECTIVE 4: PHARMACEUTICAL-SECTOR FINANCING, INCLUDING RESOURCE ALLOCATION AND USE, OPTIMIZED

Activity 1.4.1: Support the DOH to identify factors that affect health commodity procurement (bid) failures (Asia Bureau).

To identify major contributors to procurement bid failures, MTAps met with various DOH offices and started gathering data from the PS office. MTAps also interviewed Pharmaceutical and Healthcare Association of the Philippines, an organization whose members are local pharmaceutical suppliers, to gather preliminary data from suppliers' perspective. MTAps has also gathered data on the 2021–2023 procurement activities and failures of TB, FP, and HIV commodities of the DOH. In the next quarter, MTAps will continue to gather perspectives from suppliers and analyze the data provided by the DOH.

MTaPS developed the final draft of the HTA Methods Guide for Clinical Equipment and Devices (CED), which has incorporated stakeholder input. The draft was endorsed by the Department of Science and Technology HTA Division (HTAD). This guide aims to facilitate evidence-based decision-making regarding the use, coverage, and reimbursement of health technologies, including CEDs, within health care systems. Following development of the guide, MTAps co-facilitated the Philippine HTA Methods Guide launch event and workshop with HTAD. The event included capacity strengthening on HTA CED and model calibration using real-world data. Technical officers from Indonesia and Philippines Ministry of Health and HTA divisions/offices also participated in the workshop, fostering cross-country learning and exchange of experiences on HTA process and tools.

OBJECTIVE 5: PHARMACEUTICAL SERVICES, INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE TO ACHIEVE DESIRED HEALTH OUTCOMES, IMPROVED

MTaPS coordinated with ReachHealth and the MyCure system provider, Team O.P.S., for pilot testing of the system to digitally integrate the respective primary care provider networks in Batangas and Laguna, through the PIES initiative. As of October 2023, the system had been deployed in 13 facilities in Batangas and Laguna; however, none of the sites were utilizing it. Challenges in adoption included lack of hardware and technical support. To address this, ReachHealth is mobilizing Batangas and Laguna LGUs to attend the MyCure technology use and adoption workshop in December 2023, in which MTAps plans to participate, through Team O.P.S.

CROSS-CUTTING ACTIVITIES

Activity 3.1: Collaborate with other USAID IPs and government stakeholders to sustain key initiatives.

MTaPS, in collaboration with ReachHealth, drafted the Local Health Board Resolution to secure LGU buy-in on eLMIS implementation to all its health care provider networks. Also, MTAps collaborated with

the DOH-SCMS, PBSP, and a local organization, ICTech, in the rollout of eLMIS to more LGUs and facilities. Furthermore, MTaPS collaborated with ReachHealth on the implementation of the MyCure system in primary health care providers in Batangas and Laguna.

Activity 3.2: Support gender equality and women's empowerment in PSS.

To build the institutional capacity of the DOH to train government staff on advancing outcomes related to gender equality in the areas of PSCM and PV, MTaPS worked with the Health Policy Development and Planning Bureau (HPDPB) to develop and upload Gender and Development (GAD) modules into the DOH Academy. MTaPS and HPDPB also began discussing the organization of the GAD secretariat meeting, where the GAD focal persons would have the opportunity to share their experience and learnings on gender mainstreaming in pharmaceutical systems.

Activity 3.3: Support health facilities to improve practices on IPC and HCWM for climate risk management (CRM).

MTaPS continued working to improvise the WOM by adding contents on inventory control systems which will dictate informed allocation decisions to avoid rejection and overstock of commodities at lower levels of the supply chain. This will reduce the supply chain carbon footprint and contribute to CRM. The continuous expansion of eLMIS supported by MTaPS facilitates efficient supply chain operations and use of supply chain data for decision making to contribute to reduction of pharmaceutical waste, thereby reducing the supply chain carbon footprint. In addition, manual paperwork is being reduced through eLMIS operation, which in turn reduces environmental hazard. Furthermore, the eLMIS incorporated IPC and HCWM commodities/supplies to ensure that facilities will stock enough supplies to support IPC and HCWM standard practices.

BEST PRACTICES/LESSONS LEARNED

- Leadership, political will, and effective resource mobilization help fast track the implementation of activities and innovations such as the expansion of eLMIS leveraging Global Fund resources.
- Evidence-based and multisectoral approach (e.g., MTaPS' collecting and analyzing data from procuring entities at the DOH and suppliers) yields a deeper understanding of the root causes of procurement failures.
- Knowing and engaging the right stakeholder can produce opportunities for improved design and implementation of project activities. For example, the PPhA, which MTaPS is engaging as part of the LTAPs scheme, is considering developing another certification course for pharmacists, which provides a timely partnership opportunity in line with LTAPs implementation.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
USAID Transition Culmination Event	January 2024
Finalizing the WOM Addendum	January 2024
National PSCM Strategic Plan Validation Workshop	January 2024

Table 19. Quarter 1, FY24, Activity Progress, Philippines—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.1.1: Support the DOH in establishing a working PSCM governance and coordination mechanism.	Obj 1	PSCM Governance and Oversight Committee TOR developed. Local organization, PASIA, to support the development of the strategic plan for PSCM identified. Initial key informant interviews and consultative workshop for the strategic plan for PSCM development completed. Consolidating and validating more information to finalize the plan is under way.
Activity 1.2.1: Support the DOH in supplementing the WOM, considering recent system design.	Obj 2	MTaPS is drafting WOM addendum.
Activity 1.2.2: Facilitate capacity development at the central and CHD levels on the updated WOM (using DOH resources).	Obj 2	Target audiences for training identified.
Activity 1.2.3: Facilitate the engagement of LTAPs in supporting supply chain initiatives.	Obj 2	MTaPS conducted information sessions to identify a pool of potential LTAPs who can assist the DOH, regions, and LGUs as third-party service contractors of SCM services. MTAps is continuously coordinating with SCMS to update the progress and is exploring options to formalize the LTAP scheme.
Activity 1.3.1: Support the rollout of eLMIS at selected LGUs and SDPs.	Obj 3	MTaPS conducted rollout of eLMIS to 106 more sites; supportive supervision and monitoring visit conducted.
Activity 1.4.1: Support the DOH to identify factors that affect health commodity procurement (bid) failures.	Obj 4	Preliminary data collected and interviews conducted. Analyzing data and conducting more interviews are under way.
Activity 3.1: Collaborate with other USAID IPs and government stakeholders to sustain key initiatives.	Cross-cutting	MTaPS is regularly collaborating with DOH, PBSP, and other USAID IPs to implement PSCM and PV support activities.
Activity 3.2: Support gender equality and women’s empowerment in PSS.	Cross-cutting	MTaPS submitted the GAD modules for uploading to the DOH Academy. Gender GAD focal person agreed on the workshop with DOH and preparations are underway.
Activity 3.3: Support health facilities to improve practices on IPC and HCWM for CRM.	Cross-cutting	MTaPS’ work such as development of addendum for WOM, expansion of eLMIS, management of IPC and HCWM commodities through eLMIS is contributing to CRM through reduction of wastages and minimizing paperwork.

O. RWANDA

FIELD SUPPORT ACTIVITIES

OVERVIEW

The goal of MTaPS in Rwanda is to provide support in strengthening its pharmaceutical system to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medical products—including ARVs and MNCH products—along with related pharmaceutical services. As part of its support to Rwanda’s MOH and FDA, MTaPS focuses its technical assistance on improving regulatory systems at the Rwanda FDA, improving pharmaceutical-sector oversight and management by bolstering MTCs (previously known as DTCs), and ramping up PV systems which in turn strengthens both the public and private pharmaceutical sectors. MTaPS’ strategic approach to strengthening the Rwanda FDA is to strengthen its institutional capacity to address key areas of weakness and gaps identified in successive WHO GBT assessments.

CUMULATIVE PERFORMANCE TO DATE

Over the past five years, MTaPS has continued to provide pharmaceutical systems strengthening support to the MOH and its institutions, including the Rwanda FDA and the RBC (including its MCCH division).

With MTaPS’ support, Rwanda FDA developed a 4-year strategic plan (2021–2024), a costed 5-year business plan (2021–2026), 12 regulations, and other pharmaceutical-sector regulatory documents (e.g., guidelines, manuals, and SOPs). In PY4 and PY5, MTaPS supported three dossier assessment retreats, which reduced the backlog of pending medicine registration applications at the Authority. As part of implementation of a QMS at the Rwanda FDA in accordance with ISO 9001:2015 requirements, MTaPS supported the development of a quality manual and corresponding SOPs, as well as an internal audit training of 27 Rwanda FDA staff (10 female). MTaPS has contributed to strengthening 5 pharmaceutical regulatory functions: the national regulatory system, product registration and marketing authorization, licensing establishments, regulatory inspections, and vigilance.

To increase efficiency of the Rwanda FDA’s regulatory functions, MTaPS provided technical support in implementation of an IRIMS, which was customized to the Authority’s requirements and implemented with training of internal and external users. MTaPS worked with Rwanda FDA and Rwanda Information Society Authority (RISA) to facilitate final hosting of IRIMS in the country’s National Data Center, leveraging COVID-19 funds from USAID. IRIMS has since gone live, enhancing the efficiency and accountability in regulatory service provision and access to information for decision-making at the Authority.

In addressing the human resources capacity gap, MTaPS supported training of health care providers in different areas of pharmaceutical management, including 850 Rwanda FDA regulatory personnel (548 male, 302 female) trained in medicines evaluation and registration, good manufacturing practices, good review practices, good reliance practices, PV, and QMS. As part of long-term sustainability of capacity building, MTaPS provided technical support to develop e-learning courses in MER and PV, which are hosted on the Rwanda FDA servers. MTaPS supported the MOH and Rwanda FDA in disseminating

information on pharmaceutical service accreditation standards and medicines safety to health workers in various forums. To improve pharmaceutical management in HFs via MTCs, MTaPS supported the development of an MTC operational manual, tools, and SOPs, and oriented 313 health care providers (113 female) on these products. MTaPS provided technical support to the MOH to assign antibiotics into AWaRe categories, as per WHO recommendations, and include them in the NEML to help prescribers use antibiotics more effectively to contain AMR. To improve quality of care for MNCH, MTaPS supported the development of guidelines on regulating medical gases to ensure the availability of quality medical oxygen for the management of hypoxic newborns and children as well as COVID-19 cases. MTaPS also supported the MOH in a rapid assessment of the use of medicines for postpartum hemorrhage and eclampsia, and subsequent development of an implementation manual to guide health workers on procedures for correct cold storage and management of oxytocin.

To strengthen PV, MTaPS supported the development of a costed multi-year national PV plan to guide the implementation of medicine safety monitoring activities. MTaPS also supported the training of 19 participants from the National Pharmacovigilance Advisory Committee and Rwanda FDA on PV. In strengthening the information management system for both active and spontaneous PV, MTaPS supported the Rwanda FDA to adapt the electronic PViMS for spontaneous reporting of AEs, including AEFIs for Ebola and COVID-19 vaccines, and for active safety monitoring of DTG-based antiretroviral therapy (ART) regimens. From June 2021 to September 2023, 1,708 AEFIs (776 of which were serious AEs) were reported to the Rwanda FDA, which subsequently reported them to WHO. The use of PViMS ensures that medicine safety monitoring reports are quickly received and analyzed by the Authority, which can then provide regulatory feedback to clients, patients, and HFs in a timely manner. Further, MTaPS has supported Rwanda FDA to ensure that PViMS is interoperable with the WHO's VigiFlow using the specialized E2B format.

To conduct active surveillance of DTG-based ART regimens to determine their safety, MTaPS—working with the MOH, the RBC, and Rwanda FDA—developed a study protocol that was approved by the Rwanda National Ethics Committee and implemented in 20 HFs with 1,440 enrolled patients. The 1-year patient follow-up period ended in May 2023. Over that period, each patient had up to 9 follow-up visits, 3 patients were lost to follow-up, and 9 mild AEs (such as skin rashes and dry cough) were identified.

MTaPS supported the RBC in conducting a situational analysis of ARV MMD and pack size, which facilitated the rollout of 6 MMD using a recommended pack size of 90 units. Furthermore, MTaPS supported the RBC to conduct a feasibility study on shifting adherent breastfeeding mothers and new clients on ARVs from monthly dispensing to bimonthly dispensing, which found that MMD is feasible and satisfies different categories of people living with HIV/AIDS. Implementing MMD is expected to reduce workloads at the HF level and improve the quality of HIV care.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

During Q1 for PY6, as part of finalizing PY5 activities, MTaPS supported Rwanda FDA to conduct a third 3-week medicines dossier assessment workshop retreat, which reduced the backlog of pending medicine dossier applications, processing 482 out of the then over 1,000 unassessed applications. This addressed an existing gap noted in the November 2023 WHO GBT assessment.

MTaPS supported Rwanda FDA with recommendations for the revision of the draft communication strategy for AE awareness and other regulatory functions with an implementation plan and recommendations.

OBJECTIVE 1: GOVERNMENT AND HEALTH WORKER CAPACITY TO MANAGE PHARMACEUTICAL SYSTEMS STRENGTHENED

Activity 1.1.1: Strengthen the medical products regulatory framework capacity of Rwanda FDA in regulating pharmaceuticals including that for medicines used in HIV/AIDS, MNCH, and FP/RH programs (PY5)

During Q1, a fourth 3-week medicines dossier assessment retreat was conducted which helped reduce the backlog of more than 1,000 pending medicine dossier applications, which was a gap noted in the November 2023 WHO GBT assessment. Rwanda FDA submitted 482 unassessed applications to the workshop, where 466 of these completed first assessment, 291 completed second assessment, and 229 applications were recommended for peer review, while the rest (62) are pending with queries to be addressed by the applicants. Among the 482 applications evaluated at the first assessment, 336 (69.7%) were assessed using an abridged approach, while in the second assessment 44.7% (130 of 291) were assessed using the reliance approach as they were either products on the Rwanda FDA authorized list or those already registered by the Tanzania Medical and Medical Devices Authority and Ghana FDA. Evaluation was done according to the published Rwanda FDA guidelines for reliance and abridged procedures. Among these, four MNCH medicines were assessed in the second assessment where one was submitted for peer review. This activity helps to address the gap for indicator MA04.01 that emphasizes how documented procedures/tools are implemented for the assessment of the different parts of the application and for the assessment of specific requirements applicable to specific classes of medical products (quality, safety, and efficacy) noted in the November 2023 WHO GBT assessment.

OBJECTIVE 2: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION FOR EVIDENCE-BASED DECISION-MAKING PROMOTED

Activity 2.1.1: Build capacity on the use and management of IRIMS in automation of medical product regulation processes (PY5)

MTaPS continued to work with Rwanda FDA and the software development consultant to support IRIMS operationalization and implementation of critical system integrations with other Rwandan national-level electronic systems. In addition, the integration of IRIMS with the e-signature platform through RISA digital certificate is now complete, making the licenses issued by Rwanda FDA more secure and authentic. To ensure the sustainability of the system, MTAps has continued to implement key transition activities, including to support the Rwanda FDA in preparing a service level agreement (SLA), and facilitated the signing of the agreement with the system developer Softclans for system maintenance. MTAps, in collaboration with focal Rwanda FDA staff members, prepared system requirements specifications (SRS) for a QMS module in response to the Authority's need to integrate quality management with IRIMS. The SRS will be used in the development of the QMS module in the next quarter.

OBJECTIVE 3: SYSTEMS FOR PROVIDING PATIENT-CENTERED PHARMACEUTICAL CARE AND SERVICES STRENGTHENED

Activity 3.2.2: Continue to strengthen pharmacovigilance and safety monitoring for regulated medicines, including ARVs, through enhancing the existing spontaneous reporting system (PY5)

MTaPS supported Rwanda FDA to revise the draft communication strategy for AE awareness and other regulatory functions with an implementation plan with provision of recommendations. The revised draft strategy will help the Authority to share safety and other relevant regulatory information with the right audience through proper communication channels and tools and to have an effective and timely response to risks and crises, hence promoting effective communication while protecting public health. In addition, it will help the Rwanda FDA to address various GBT vigilance (VL) indicators and sub-indicators identified during the recent assessment, such as:

- VL02.02 (Documented procedures and mechanisms are implemented to ensure the involvement, coordination, and communication among all stakeholders relevant to vigilance activities)
- VL06.01 (Vigilance activities and relevant feedback are appropriately communicated to the public)
- VL06.02 (Mechanism for regular feedback to all stakeholders on vigilance events exists and is complemented with a risk communication plan)
- VL06.03 (Vigilance data and findings are shared with relevant regional and international partners), as well as the other communications-related indicators mentioned above

BEST PRACTICES/LESSONS LEARNED

- As demonstrated during the dossier assessment retreat, using separate groups called “streams,” organized by the assessment methods used (full assessment, reliance, and abridged), considerably increased the number of dossiers assessed from the planned 150 to 482, and thus increased the number of dossiers that reached the peer review stage.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
<p>Activity 1.1.1: Strengthen the medical products regulatory framework capacity of the Rwanda FDA in regulating pharmaceuticals, including medicines used in HIV/AIDS, MNCH, and FP/RH programs</p> <ul style="list-style-type: none"> ▪ (FY3) Support Rwanda FDA to conduct an external QMS audit toward ISO 9001:2015 certification, including additional implementation of CAPAs arising out of the assessment (PY3) ▪ Strengthen Rwanda FDA capacity to control imports and exports (I&E) via a data analysis workshop to analyze data from I&E applications to inform decision-making 	January-March 2024
<p>(PY5) Activity 2.1.1: Build capacity on the use and management of IRIMS in automation of medical product regulation processes</p> <ul style="list-style-type: none"> ▪ Support the development via a consultant of a QMS module according to the SRS and plan for its implementation ▪ Continue operationalization of the system and finalize integrations with the NPC and laboratory information management system 	January-March 2024
<p>(PY5) Activity 3.2.2: Continue to strengthen PV and safety monitoring for regulated medicines, including ARVs and vaccines, through enhancing the existing spontaneous reporting system</p> <ul style="list-style-type: none"> ▪ Update the PViMS user manual and other documentation in line with refinements made to the system; train focal Rwanda FDA staff, including the new information and communications technology (ICT) team, on the updated PViMS ▪ Continue with the interfacing of PViMS and IRIMS datasets by integrating the relevant common key data elements in reports on a dashboard 	January-March 2024

Table 20. Quarter I, FY24, Activity Progress, Rwanda—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 1.1.1: Strengthen the medical products regulatory framework capacity of the Rwanda FDA in regulating pharmaceuticals, including medicines used in HIV/AIDS, MNCH, and FP/RH programs</p> <p>Activity description: Support Rwanda FDA to strengthen its system for control of I&E through mapping and review of existing guidance and development of missing ones; reduce dossier application backlog using reliance and abridged procedures to help expedite medicine registration</p>	1.2	MTaPS supported a fourth medical product dossier assessment session to reduce the backlog at Rwanda FDA. This 3-week session (November 27–December 15, 2023) assessed 482 applications using abridged, reliance, and full assessment methods, of which 466 passed the first assessment, 291 passed second assessment, 62 referred for applicants to address queries, and 229 recommended for a peer review meeting.
<p>Activity 2.1.1: Build capacity on the use and management of IRIMS in automation of medical product regulation processes</p> <p>Activity description: Work with the Rwanda FDA and the software development consultant to support the implementation of IRIMS and train stakeholders and additional staff as users; undertake capacity strengthening of Rwanda FDA staff, including the ICT team, on effective application usage and implementation support of IRIMS; update system and operational manuals and procedures</p>	3.1	Integration of IRIMS with the e-signature platform through RISA digital certificate is completed; continued to implement key transition activities, including supporting Rwanda FDA in preparing an SLA, and facilitated the signing of the agreement with the system developer for system maintenance; developed SRS for a QMS module
<p>Activity 3.1.3: Improve access to and administration of oxygen to hypoxic newborns and children with pneumonia</p> <p>Activity description: Worked with RBC and stakeholders to review existing resources for oxygen management and to use and support the development of guidelines and SOPs on oxygen therapy and oxygen equipment utilization for use at facility levels; given the oxygen standard treatment guidelines had already been developed, consensus was to develop job aids (posters and desktop sheets) to support the application of the treatment guidelines by health care providers</p>	5.2	MTaPS worked closely with the MOH and other stakeholders, developed a set of eight job aids for oxygen administration based on the content of the Rwanda standard treatment guidelines for oxygen therapy, and submitted to the MOH for validation.
<p>Activity 3.2.2: Continue to strengthen PV and safety monitoring for medicines, including ARVs, through enhancing the existing spontaneous reporting system</p> <p>Activity description: Work with the Rwanda FDA to enhance PViMS to address identified gaps in reporting of AEs, improve ease of data entry, update the user manual, and enhance user-friendliness; develop an interface between PViMS and IRIMS with a dashboard; support Rwanda FDA in finalizing the Authority’s draft Communication Strategy</p>	5.3	MTaPS supported Rwanda FDA to revise the draft communication strategy for AE awareness and other regulatory functions with an implementation plan with provision of recommendations.

P. SENEGAL

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS in Senegal is to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. MTaPS will achieve this goal by building the capacity of in-country stakeholders through a system-strengthening approach. In Senegal, MTaPS provides support to strengthen governance for MSC, improve IPC practices and services, and strengthen governance for AMS, including capacity building. In line with the GHSA AMR action package, the expectations of the USAID Mission in Senegal, and the MOH and its partners, MTaPS continues to focus on interventions to support progress on the path toward higher JEE scores for IPC and AMS.

The MTaPS technical approach is designed to achieve expected outcomes while addressing identified challenges by basing country-specific technical assistance on a sound, evidence-based situational analysis of the strengths and weaknesses of activities at the eight targeted hospitals and of the IPC and AMS national programs. Since 2021, program implementation has focused on solving immediate problems and demonstrating results at an additional five hospitals.

CUMULATIVE PERFORMANCE TO DATE

During previous years, MTaPS supported the revitalization of the AMR TWG in the OH Platform and its functionality under the aegis of the OH secretariat. MTaPS supported the development of annual and quarterly action plans of the OH Platform, based on the National Health Security Plan and the evaluation of MSC activity implementation, through multisectoral workshops and meetings. MTaPS also supported the implementation of selected activities for WAAW and the development of Senegal's Multisectoral Health Security Action Plan informed by an assessment using the e-SPAR Tool. Finally, MTaPS supported the evaluation and results analysis of the NAP-AMR of 2017–2022 and is currently supporting the finalization of the draft of the new NAP-AMR of 2024–2028.

MTaPS supported the DQSHH to review and update Senegal's national IPC supervision checklist. The revised national IPC supervision checklist now includes the WHO's multimodal strategy, as well as the WASH component in health care settings. The DQSHH then used the newly updated national IPC supervision checklist to measure the IPC capacity level of health facilities. This supervision checklist includes guidance to help supervisors standardize its use in the 14 health regions in Senegal. Additionally, MTaPS supported the DQSHH to conduct a first assessment of the national IPC program using the WHO IPCAT2 and to conduct the baseline assessment of the IPC program in 13 hospitals and one health center using the WHO IPCAF tool.

MTaPS also supported the revitalization of the 13 hospitals using the WHO multimodal strategic approach and the CQI approach. These approaches have been appropriated by the MOH through the update of the National IPC Policy document and the development of the 5-year IPC National Strategic Plan, both of whose development was supported by MTaPS. The IPC National Strategic Plan has been

technically validated by the General Secretary of the MOH, and its current annual action plan is already being implemented.

To strengthen governance for AMS, MTaPS provided support to the NCAT to update Senegal's antibiotic policy and national STGs, which had been developed in 2010 but never implemented. MTaPS used this opportunity to provide technical orientation to NCAT's four TWGs (for antibiotic therapy policy, antibiotic therapy for community infections of adults and children, antibiotic therapy of health care-associated infections, and antibiotic prophylaxis) on WHO's AWaRe categorization of antibiotics. NCAT has since adopted AWaRe categorization. The national antibiotic STGs have been institutionally validated and MTaPS has supported the development of training modules on AMS based on the national antibiotic STGs. MTaPS also supported a TOT for a pool of national trainers in order to start the implementation of the guidelines.

QUARTER 1/YEAR 6 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

(PY5) Activity 1.1.1: Strengthen the functionality of the AMR TWG by supporting effective coordination through regular meetings.

Prior to FY24, MTaPS had collaborated with the WOA and FAO Emergency Centre for Transboundary Animal Diseases (ECTAD) to provide technical and financial support to organize a workshop to develop the first draft of Senegal's National AMR Action Plan for 2024–2028. Senegal's National AMS Plan, which had also been previously developed with support from MTaPS, has been integrated into the new 2024–2028 National AMR Action Plan. During FY24 Quarter 1, the AMR TWG created a select committee to finalize the new National AMR Action Plan, and MTaPS collaborated with other GHSA partners, including FAO, IDDS, etc., to organize multiple follow-on meetings of this committee. Senegal's National AMR Action Plan is based on recommendations from WHO JEE experts, and its development was informed by JEE results for the indicator for MSC on AMR.

(PY6) Activity 1.1.1: Support the installation of functional AMR technical working groups in two regions.

MTaPS supported WAAW activities to raise awareness of antimicrobial resistance among health care professionals, students, livestock breeders, farmers, and community workers. From November 20 to 24, 2023, MTaPS, under the aegis of the One Health Secretariat, supported WAAW activities in Saint-Louis. The launch of the celebration week was held on November 20 in the Governor's building with the participation of over 100 stakeholders, community actors, and health workers from all sectors. USAID GHSA implementing partners such as Breakthrough ACTION and other AMR partners such as MPTF also provided financial and technical support for the celebration of WAAW. The days following the launch were dedicated to supporting an awareness-raising campaign throughout the cities of Saint-Louis and Podor, and a three-science day fair at the university of Saint-Louis.

During the celebration of WAAW, the Saint-Louis regional OH Platform drafted TOR to establish an AMR regional technical working group (RTWG) in Saint-Louis. The Governor of Saint-Louis will issue a decree to formalize the RTWG and its TOR.

RESULT AREA 2: IPC

Activity 2.5.2: Provide technical assistance for supportive supervision to increase compliance with the updated IPC guidelines and standards.

From November 12 to 18, 2023, MTaPS supported the DQSHH to conduct the first phase of a national IPC supervision in 5 regions along the following routes:

- Route 2 = Ziguinchor-Kolda-Sédhiou
- Route 3 = Thiès-Diourbel

The supervision team, composed of MTaPS, 1 DQSHH agent and 1 IPC Committee coordinator from a different hospital, visited 1 hospital in each region on the route. In each hospital, the supervision teams met with the ICC and completed the following actions:

- Evaluating progress in IPC with the recently updated national IPC supervision grid
- Identifying challenges to the effective implementation of IPC activities at the facility level
- Recommending corrective measures to improve IPC practices in each facility

The results of the supervision visits are summarized in table 21.

Table 21. Results of IPC Supervision Visits, November 2023

MTaPS-Supported Hospitals	Results (based on the national IPC supervision grid)	Comments
Hôpital Saint Jean de Dieu de Thiès	92.25 %	Ownership of good IPC practices
Hôpital Matlaboul Fawzeyni de Touba	69%	Satisfactory application of good IPC practices
Hôpital Thierno M. Barro de Mbour	57.5 %	Satisfactory application of good IPC practices
Hôpital de Tivaouane	73.5 %	Satisfactory application of good IPC practices
Hôpital Régional de Sédhiou	83.5 %	Very satisfactory application of good IPC practices

The ICCs have planned to update their respective improvement action plans based on the results of the supervision visits.

Activity 2.5.3: Support the revitalization of ICCs at selected district and regional hospitals.

On November 8, 2023, MTaPS supported the ICC of the level 2 hospital of Kaolack to assess its IPC capacity with the WHO IPCAF tool. The hospital obtained a score of 332.5/800, corresponding to a basic IPC capacity level. This result is an improvement from the baseline assessment conducted in May 2022, with a score of 187.5 (inadequate IPC capacity level). The ICC updated its improvement action plan based on the gaps identified during the assessment.

Activity 2.5.4: Support local ownership by the regional health directorate and the routinization of IPC activities in selected facilities.

MTaPS worked with the Regional Health Directorates (RHD) of Kaffrine, Fatick, and Kaolack to draft the TORs for subcontracts to support the revitalization of ICCs at their respective regional hospitals. The goal of this support is to strengthen the routinization of IPC activities in these three MTaPS-

selected facilities, as well as to strengthen local ownership through M&E by the RHD. As per the recommendation of the General Secretary of the MOH, MTaPS also addressed a letter to the Minister of Health requesting the Ministry's support in building the capacity of the RHDs to implement and monitor IPC programs in the regional hospitals.

The last four years of support to level 3 Hospital General Idrissa Pouye (HOGIP) have been devoted to reorganizing the ICC, drafting IPC guidelines, building capacities on IPC, and consolidating what has already been achieved through the implementation of improvement action plans. IPC activity implementation and data collected by the ICC at HOGIP have presented a valuable opportunity for publication in international scientific research journals, and MTaPS is supporting the development of scientific documents based on the data collected on the most common health care-associated infections identified in the hospital, as well as the microorganisms identified and their AMR profiles.

Since December 1, 2023, the ICC at HOGIP has been actively collecting data related to health care-associated infections from surgical activities. The data collection is being conducted in all eight surgical services of HOGIP, and ICC referents (the ICC representatives in each health care unit), surgeons, operating room staff, and all hospital personnel are directly or indirectly involved. MTaPS provides technical assistance throughout the process, including through biweekly follow-up meetings with the ICC referents.

RESULT AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

(PY5) Activity 3.1.1: Support the implementation of capacity-building interventions to increase compliance with antibiotic STGs.

From December 12 to 14, 2023, MTaPS supported the training of 23 members (8 female and 15 male) of the hospital medical committee (HME) of the level 2 hospital in Kaffrine. The training was facilitated by a trainer from the national pool of trainers and a member of HOGIP's medical committee trained with MTaPS' support from August to September 2023.

The objective of the December training was to strengthen the capacities of prescribers at the regional hospital of Kaffrine in terms of antibiotic prescribing, management, and monitoring. The participants have also been oriented on WHO AWaRe categorization of antibiotics. The training involved all prescribers and other health staff such as pharmacists, laboratories, and the hospital management team.

(PY6) Activity 3.1.1: Support the National Antimicrobial Consumption and Use Survey.

Since November 2023, MTaPS has been working with WHO and the National Pharmaceutical Regulatory Agency (NPRA) to prepare for the national collection of antimicrobial consumption data from 2021 to 2023 at public and private health facilities, including hospitals, health centers, wholesale distributors, and pharmacies in the Dakar, Saint-Louis, Louga, Kaolack, Diourbel, Ziguinchor, and Kolda regions. MTaPS is providing preparatory work, which so far has included technical support to draft the TOR of the activity and reviewing the collection tools for validation prior to training the antibiotic consumption data collection team. The evaluation of sample data will contribute to strengthening the rational use of antimicrobials in the country.

BEST PRACTICES/LESSONS LEARNED

- Even when circumstances force a last-minute switch to a partially virtual training and conditions for remote training are less than ideal, the training course can succeed. For example, the AMS training course at Kaffrine hospital was originally scheduled to take place in-person. However, just a day before the event, the MTaPS team was informed that one of the trainers would not be able to make the trip to Kaffrine. MTaPS was quick to pivot to organize a semi-virtual session for the parts of the agenda led by this trainer. Despite the last-minute change and less-than-ideal conditions (i.e., spotty Internet), the trainers and trainees were flexible, active, and committed to learning.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Support the installation of functional AMR TWGs in two regions.	January–March 2024
Activity 2.5.4: Support local ownership by the regional health directorate and the routinization of IPC activities in selected facilities.	January–March 2024
Activity 3.1.1: Support the National Antimicrobial Consumption and Use Survey.	January–March 2024

Table 22. Quarter 1, FY24, Activity Progress, Senegal—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
<p>Activity 1.1.1: Support the installation of functional AMR TWGs in two regions.</p>	5.4	1.1	<p>MTaPS supported the celebration of the WAAW in Saint-Louis under the aegis of the National OH Platform and in collaboration with other GHSA partners such as Breakthrough ACTION and FAO.</p> <p>MTaPS provided support to the Saint-Louis’ Regional OH Platform drafted the TOR to establish the AMR RTWG) in Saint Louis. The Governor of Saint-Louis will issue a decree to formalize the RTWG and the TOR.</p>
<p>Activity 2.5.1: Support local ownership by the RHD and the routinization of IPC activities in selected facilities.</p>	5.4	2.5	<p>MTaPS worked with the RHDs of Kaffrine, Fatick, and Kaolack to draft the TOR of subcontracts to support the revitalization of the ICCs in their respective regional hospitals.</p> <p>MTaPS also supported the collection of data related to health care–associated infections from surgical activities in all eight surgical services of HOGIP, including, whether directly or indirectly, ICC referents, surgeons, operating room staff, and all hospital personnel.</p>
<p>Activity 3.1.1: Support the National Antimicrobial Consumption and Use Survey.</p>	5.4	3.5	<p>MTaPS is working with WHO and the NPRA to prepare the national collection of antimicrobial consumption data from 2021 to 2023 at public and private health facilities, including hospitals, health centers, wholesale distributors, and pharmacies in the Dakar, Saint-Louis, Louga, Kaolack, Diourbel, Ziguinchor, and Kolda regions.</p>

Q. TANZANIA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

MTaPS' GHSA goal in Tanzania is to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. To achieve this, MTaPS is improving the quality of care for AMR containment in the country by building the capacity of in-country stakeholders through a systems-strengthening approach in three result areas: effective MSC on AMR, IPC, and optimization of antimicrobial medicines use through AMS. The PY6 implementation plan for GHSA builds on the work done in PY1–PY5. MTaPS continues to focus on strengthening the governance of the MOH and selected HFs, in collaboration with other USAID programs and partners working to implement a sustainable AMR program in Tanzania. Therefore, advocating for the use of data for CQI of both AMS and IPC interventions and supporting the development and implementation of surveillance methods for SSIs, which require antibiotics for treatment, is a key concern with respect to AMR. MTaPS is building the capacity of HCPs to implement the IPC-related reporting system (as part of DHIS2) to provide the MOH with data for decision-making about IPC and for the active implementation of CQI methodologies and AMS interventions in supported HFs.

CUMULATIVE PERFORMANCE TO DATE

From PY1 through PY5, MTaPS supported 43 of 62 (69%) WHO IHR benchmark actions: 10 contributing to MSC/AMR, 20 contributing to IPC, and 13 contributing to AMS. MTaPS helped the MOH improve Tanzania's JEE score for MSC by supporting 25% (1/4) of capacity level 2, 100% (4/4) of capacity level 3, 75% (3/4) of capacity level 4, and 40% (2/5) of capacity level 5 WHO benchmark actions, resulting in an overall achievement rate of 39% (10/17). In MSC, MTaPS supported the coordination of AMR activities under the AMR MCC, working under the OH approach, and the MCC held meetings to oversee and give guidance on implementing the NAP-AMR 2017–2022 and the current NAP-AMR 2023–2028 across the human health, animal health, plant, livestock, and fisheries sectors. MTaPS supported the setup and operation of TWGs, which helped improve the implementation of IPC, AMS, and M&E in Tanzania. MTaPS supported the development and operationalization of the Multisectoral AMR Communication Strategy: Moving from Awareness to Action 2020–2025, which helped improve OH communications, practices, and implementation among the MOH, Ministry of Agriculture, Ministry of Livestock and Fisheries, President's Office Regional Administration and Local Government (PO-RALG), and the five TWGs that feed into the MCC (AMR awareness, AMR surveillance, IPC, AMS, and M&E).

In IPC, MTaPS supported 80% (4/5) of capacity level 2, 100% (6/6) of capacity level 3, 100% (5/5) of capacity level 4, and 100% (5/5) of capacity level 5 WHO benchmark actions, resulting in an overall achievement rate of 95% (20/21), which contributed to improving the country's performance from the 2016 JEE score of 3. MTaPS supported the revision of the national IPC guidelines for health care services in Tanzania (2018 edition) and their distribution across mainland Tanzania. MTaPS also conducted IPC training for 519 (296 female) HCPs. To improve IPC implementation and sustainability, MTaPS

established and strengthened IPC committees in 10 MTaPS-supported hospitals and conducted clinical mentorship and CQI, which brought about improved water, sanitation, and hygiene (WASH) and handwashing practices and reduced SSIs and other nosocomial infections. MTaPS developed an IPC e-learning course that equipped the Center for Distance Education in Morogoro to offer online IPC training to HCPs. Furthermore, MTaPS supported the MOH to review the IPC training curriculum for HCPs and oriented 61 (41 female) tutors on its use. MTaPS supported the MOH to develop a national IPC M&E system. This included training RHMTs, facility IPC focal persons, and facility health management information system focal persons on the use of IPC M&E tools and reporting IPC indicators via DHIS2. MTaPS Tanzania also supported the MOH to develop an HAI surveillance system with reporting through DHIS2. All 10 MTaPS-supported facilities are now conducting HAI surveillance and reporting to the MOH while using the data for facility IPC improvement.

MTaPS' implementation of AMS activities has contributed to improving Tanzania's baseline JEE score from level 1 to level 2 capacity by supporting 100% (4/4) of capacity level 2, 67% (4/6) of capacity level 3, 43% (3/7) of capacity level 4, and 29% (2/7) of capacity level 5 WHO benchmark actions, resulting in an overall achievement rate of 54% (13/24). MTaPS supported the MOH, Ministry of Agriculture, and Ministry of Livestock and Fisheries in developing the AMS policy guidelines per the OH approach. MTaPS supported the MOH in developing and disseminating the MTC guidelines as well as the STGs and the NEML for Tanzania, which included AWARe classification of antibiotics. MTaPS trained 110 (43 female, 67 male) HCPs from 10 supported facilities on AMS—specifically, on ethical prescribing and dispensing antimicrobials. MTaPS, in collaboration with the MOH, supported HFs in implementing AMS interventions, including reviving MTCs to foster AMS implementation at hospitals. MTaPS also conducted a survey on national antimicrobial consumption in Tanzania for 2017–2022 and a PPS on AMU across six referral hospitals in 2020 and two hospitals in 2023. In addition, a national hospital formulary template was developed and provided to hospitals in Tanzania to be used in developing/revising their own hospital formularies. MTaPS supported the assessment of regulations, policies, and supply chain governance related to antimicrobials in both human and animal health, which informed the development of the new NAP-AMR 2023–2028.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

- Multisectoral coordination strengthening: MTaPS supported the AMR MCC in conducting AMS, IPC, and M&E TWG meetings, the commemoration of the 2023 WAAW, and in the development of a draft M&E framework for the NAP-AMR 2023-2028.
- Conducted TOT on IPC M&E system. Subsequently, those trainers conducted training of representatives of MOH and PO-RALG.
- Conducted in-service AMS training for health care providers, regional and district pharmacists, public-private partnership (PPP) focal persons, representatives of PO-RALG, and members of the Association of Private Health Facilities of Tanzania (APHFTA).

RESULT AREA I: EFFECTIVE MSC ON AMR

Activity 1.1.1: Help further institutionalization and full local leadership and ownership of AMR by the MSC

MTaPS supported the M&E, AMS and IPC TWG meetings attended by 44 (17 female) participants in total. The M&E TWG meeting was held September 18–22, 2023, to develop a draft M&E framework for NAP AMR 2023–2028 that will track implementation of the NAP-AMR. The AMS TWG met September 29–30, 2023, to discuss AMS implementation, including actions to address gaps found during the JEE 3 assessment, while the IPC TWG meeting on October 3, 2023, discussed IPC implementation.

MTaPS worked with the MCC and MOH to commemorate the WAAW by supporting a multisectoral AMR symposium held in Arusha on November 16–17, 2023. The symposium was attended by two Ministers—the Minister for Health and Minister for Livestock and Fisheries—as well as the Chief Medical Officer, Chief Pharmacist, and the Director for Veterinary Services. Benjamin Mkapa hospital presented a poster on the PPS supported by MTAps in PY5. MTAps was awarded a certificate by the Minister for Health for its role in supporting implementation of the NAP-AMR 2017–2022, while the MTAps Senior Technical Advisor was awarded a certificate of appreciation for supporting NAP-AMR 2023–2028 development. MTAps also worked with Aga Khan hospital in organizing a symposium to commemorate WAAW on December 6, 2023. The symposium aimed to spearhead the AMR agenda in private hospitals in Tanzania and increase community awareness and advocacy on AMR. MTAps had a poster presentation on “Improving Infection Prevention and Control Practices through e-Learning.”



Organizing committee of the 3rd AMR national symposium with the Minister for Health (sitting at the center) during WAAW commemoration December 16–17, 2023, in Arusha. Photo credit: Christina Mchau, MTAps

RESULT AREA 2: IPC

Activity 2.2.1: Help further enhance capacity transfer and local ownership to national and local government authorities and IPC implementing partners to monitor and evaluate the IPC program

MTaPS collaborated with the MOH and the University of Dar es Salaam Nov. 13–17, 2023, to conduct ToT for 23 participants (10 female) on the IPC M&E system. The training aimed to produce competent

trainers who will train HCPs. The HCPs are expected to supervise and monitor IPC activities in the HF as well as conduct IPC data management, monitoring, evaluation, and reporting through DHIS2.

Furthermore, MTaPS supported the MOH and PO-RALG in conducting IPC M&E training led by the newly-trained trainers for 61 (32 female) HCPs from the Dodoma region on Nov. 20–24, 2023, using the national IPC M&E training curriculum. Participants in the training came from seven district hospitals and two faith-based hospitals, and two were representatives from the council health management team (district quality improvement focal person and DHIS focal person). HF participants included IPC, Quality Improvement, and Health Information System focal persons, as well as surgeons from primary health care facilities. The main objective of the training was to capacitate HCPs on the implementation and use of IPC M&E and the IPC component of DHIS2. Health care providers were trained on the IPC indicators, IPC reporting forms, and IPC dashboard and scorecard for data analysis, interpretation, and use.



Trainees from the Dodoma region practice entering data in DHIS2, November 2023. Photo credit: Pamela Lema, MTaPS.

MTaPS worked with the MOH and experts from the University of Dar es Salaam to conduct a data analysis workshop for 16 representatives (4 female) of the MOH and PO-RALG on October 31–November 2, 2023. The workshop’s aim was to enhance the capacity of the MOH and PO-RALG team to analyze and use IPC data for decision-making, including driving change for IPC implementation in the country. Feedback of the analyzed data was given to the HFs through IPC Extension for Community Healthcare Outcomes (ECHO) sessions and onsite visits to stimulate IPC improvement.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINE OPTIMIZED

Activity 3.2.1: Roll out training using AMS in-service training curriculum and training materials to enhance HR competence in AMS

MTaPS worked with the MOH, AMS and Awareness and Education TWGs, University of Dodoma, Muhimbili University of Health and Allied Sciences, and St John's University to train 116 participants (53 female) from 14 hospitals using the AMS curriculum and training manual developed by MTaPS during

PY5. The participants included regional and district pharmacists and PPP focal persons from seven regions. PO-RALG and APHFTA members were engaged for their support in continuing roll-out of AMS implementation to the subnational and primary and private sectors. For hands-on experience, the trainees conducted data collection and analysis and report writing on AMU using WHO PPS methodology at Mwananyamala regional referral hospital. Participants’ post-test results showed significant improvement, indicating that knowledge and skills were gained on AMS implementation. Each hospital was given copies of NAP-AMR 2023–2028 to aid in AMS implementation. WhatsApp groups were formed by the MOH and PO-RALG for technical support and to help follow up with action plans.

BEST PRACTICES/LESSONS LEARNED

- Engagement of PO-RALG in interventions helps to strategize and cascade implementations at the subnational level. MTaPS engaged PO-RALG in AMS and IPC interventions fostering scale-up of implementation at the subnational level to primary health care facilities of the Dodoma region.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
<p>Activity 1.1.1: Help further institutionalization and full local leadership and ownership of AMR by the MSC</p> <ul style="list-style-type: none"> ▪ Support the AMS, IPC, and M&E TWG quarterly meetings 	Feb.–Mar. 2024
<p>Activity 3.5.1: Help further institutionalization and ownership of AMS activities in the 10 MTaPS-supported facilities</p> <ul style="list-style-type: none"> ▪ Conduct mentoring visits to health facilities ▪ Undertake AMS ECHO mentorship 	Feb.–Mar. 2024
<p>Activity 2.5.1: Support further institutionalization, local ownership, and routinization of IPC activities in the 10 MTaPS-supported facilities</p> <ul style="list-style-type: none"> ▪ Conduct mentorship visits to health facilities ▪ Undertake IPC ECHO mentorship 	Feb.–Mar. 2024

Table 23. Quarter I, FY24, Activity Progress, Tanzania—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
<p>Activity 1.1.1: Help further institutionalization and full local leadership and ownership of AMR by the MSC</p> <p>Activity description: Support 2023 WAAW commemoration and stakeholder forums such as MCC and TWG quarterly meetings; plan for closeout activity/event to identify, discuss, and document project successes, areas for improvement, and lessons learned; help M&E TWG work toward development of an M&E framework to track implementation of the new NAP-AMR 2023–2028.</p>	5.4	1.1	MTaPS worked with the MCC and MOH to organize and participate in the AMR symposiums as part of WAAW commemoration. MTAps also supported Aga Khan symposium as part of private sector collaboration in WAAW commemoration.
<p>Activity 2.2.1: Help further enhance capacity transfer and local ownership to national and local government authorities and IPC implementing partners to monitor and evaluate the IPC program</p> <p>Activity description: Training of trainers on M&E of the IPC program, including SSI surveillance; work with the trainers to train health workers for scale-up of IPC M&E system in 4 regions; mentor MOH and PO-RALG team on conducting IPC data analysis and data use for decision-making at the national level.</p>	5.4	2.2	MTaPS trained 23 (10 female) trainers on IPC M&E. The trainers helped the MOH scale up IPC M&E system to 9 primary health care facilities in the Dodoma region by training 61 (32 female) participants on IPC M&E. Furthermore, MTAps capacitated MoH and PO-RALG team to conduct data analysis for decision-making at the national level as well as providing feedback to the health facilities.
<p>Activity 3.2.1: Roll out training using AMS in-service training curriculum and training materials to enhance HR competence in AMS</p> <p>Activity description: Work with MOH, AMS TWG, and Muhimbili University of Health and Allied Sciences to finalize the training materials; undertake in-service AMS training for health workers from MTAps-supported sites; collaborate with MOH to train health care professionals from high-volume private hospitals, district council hospitals, and APHFTA staff.</p>	5.4	3.2	MTaPS cooperated with MOH and MUHAS to train 116 health care workers (53 female) from tertiary and primary health facilities, including 2 tertiary-level private health facilities.

FIELD SUPPORT ACTIVITIES

OVERVIEW

The goal of MTaPS' field support activities in Tanzania is to strengthen the country's pharmaceutical system to ensure sustainable access to, and appropriate use of, safe, effective, quality-assured, and affordable medical products and pharmaceutical services. MTaPS worked with the Tanzania Medicines and Medical Devices Authority (TMDA) to strengthen institutional capacity and further increase the TMDA's capability to manage pharmaceutical regulatory systems by improving its marketing authorization and import processes for ARV drugs as well as enhancing its PV system using targeted interventions to enable evidence-based decision-making for patient safety. This will help maintain the TMDA's regulatory capacity maturity level 3, according to the WHO's Global Benchmarking Tool, and provide evidence to elevate the TMDA toward maturity level 4.

CUMULATIVE PERFORMANCE TO DATE

MTaPS Tanzania provided technical support to the TMDA, enhancing efficiency by strengthening the expertise and skills of professionals to ensure the quality, safety, and efficacy of medicines such as ARVs. MTaPS helped train 52 (17 female) TMDA medicine evaluators to conduct medicine dossier assessments, which will help reduce the processing time for applications for the registration of new medicines by increasing the number of qualified assessors at the TMDA. In addition, the assessors trained with support from MTaPS will continue to train new staff and ensure sustainable knowledge transfer within the TMDA and Tanzania at large. MTaPS supported the TMDA to organize a product dossier review retreat that evaluated 95 dossiers (16 for ARVs). The trained assessors applied knowledge and practical expertise to the evaluation of the medical products. This helped reduce the backlog of pending dossiers for medicines used to manage HIV/AIDS and increase expeditious authorization of ARVs and access to quality assured ARVs and other medicines.

MTaPS helped strengthen the existing passive medicine safety surveillance system for pediatric medicines used in the national HIV program by facilitating the revision of the TOR for the national PV safety advisory committee, known as the Vigilance Technical Committee (VTC), which allowed incorporation of four pediatric experts into the committee. VTC members were trained in PV and can now assess pediatric ADRs and provide feedback to ADR reporters. MTaPS also supported the development of guidelines for monitoring the safety of medicines used in the pediatric population, which will help improve the monitoring of medicines, including those for chronic diseases such as HIV/AIDS, and monitoring of children's susceptibility to ADRs.

The TMDA, with support from MTaPS, trained 27 TMDA staff (10 female), external assessors, and interns to assess periodic safety update reports and risk management plans, thus increasing the number of competent assessors at the TMDA. This support has helped the TMDA improve its monitoring, reviewing, and reporting of safety issues arising from medicines used by the public, including the pediatric population.

MTaPS facilitated a process improvement mapping for the registration and importation of ARVs for the public sector, which aimed to identify barriers and bottlenecks in the supply chain of ARVs and mitigate

them by engaging both the TMDA and medicines importers. MTaPS facilitated a stakeholder validation workshop that addressed the findings, challenges, and recommendations for improving the process for registration and importation of ARVs for the public sector. The activity helped create awareness of bottlenecks and appropriate steps to ensure product quality and safety in registering and importing medicines; increase opportunities to streamline the regulatory environment and guidelines for ARVs and improve efficiency during clearance of imported medicines, including ARVs; and eliminate wastage of products for managing HIV/AIDS and other diseases. The interventions ultimately will improve public access to quality-assured medicines required for treating HIV and improve treatment outcomes, enabling a better quality of life for people living with HIV and other diseases.

MTaPS provided technical support to the TMDA to train 26 clinical trial officers (16 female) on the evaluation of clinical trial applications (CTAs). Participants were trained on the review of pre-clinical, clinical, and manufacturing data and on developing scientific assessment reports following applicable regulations and guidelines, which contributed to improving the competency of TMDA assessors in analyzing and writing summary assessments based on clinical trial assessment data. MTaPS also supported the training of 25 (13 female) clinical trial officers on the inspection of clinical trial sites for good clinical practices (GCP) compliance. These trainees further gained practical experience by conducting inspections of three clinical sites located in the Dar es Salaam region: one at Mwananyamala Regional Referral Hospital and two at Muhimbili University of Health and Allied Sciences. The intervention contributed to efforts to strengthen clinical trials control in Tanzania and solidify TMDA's maturity level 3 rating for WHO GBT sub-indicator CT03.01: Enough competent staff (education, training, skills, and experience) are assigned to perform clinical trials oversight activities.

MTaPS' implementation of activities under PEPFAR funding COP23 dated October 2022 to September 19, 2023, was ended successfully.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

The workplan for the FS COP24 (PY6) was approved in December 2023. The implementation timeline is October 2023 to September 19, 2024. The funding was obtained from USAID FP/RH.

MTaPS is working to engage a consultant to support implementation of Y6 FS work plan activities in Q2.

The activities approved include:

- Creating awareness among stakeholders on the processes of importation and registration of FP and MNCH products in Tanzania to ensure their quality, safety, and efficacy.
- Building the capacity of medicine assessors in preparing, reviewing, and publishing of summary of product characteristics (SmPCs) and public assessment reports (PARs).
- Supporting the TMDA to develop guidelines for GSDP of medicines.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Create awareness among stakeholders on the processes of importation and registration of FP and MNCH products in Tanzania to ensure their quality, safety, and efficacy. <ul style="list-style-type: none"><li>▪ Awareness creation meeting	Jan.–March 2024
Activity 1.1.2: Build the capacity of medicine assessors in preparing, reviewing, and publishing of SmPCs and PARs. <ul style="list-style-type: none"><li>▪ Develop training package	Jan.–March 2024
Activity 1.1.3: Support the TMDA to develop guidelines for good storage and distribution practices (GSDP) of medicines <ul style="list-style-type: none"><li>▪ Development of GSDP guidelines	Jan.–March 2024

5. PROGRESS BY REGIONAL BUREAUS

A. ASIA REGIONAL BUREAU

OVERVIEW

MTaPS set out to advance pharmaceutical management systems within the Asia region by strengthening the capacity to institutionalize transparent and evidence-based decision making and use robust information to define and cost pharmaceutical coverage and by improving medicine regulatory capacity and pharmaceutical-sector governance.

CUMULATIVE PERFORMANCE TO DATE

Under objective 1, MTAps played a pivotal role in advancing HTA in Asia. This included collaborative development of an extensive HTA roadmap, in-depth assessments of nine countries/territories, and introducing the innovative HTA institutionalization canvas to comprehensively evaluate HTA systems. Supported by funding from the Asia Bureau, MTAps provided hands-on support to countries, resulting in HTA institutionalization in Indonesia and guidance for medical device assessment in the Philippines. The evaluation of the need for an HTA hub led to a recommendation to strengthen HTAsiaLink's existing initiatives, aligned with the commitment to HTA best practices in Asia. MTAps has worked continuously with key HTA stakeholders in Asia to support the priorities of the region as enumerated by HTAsiaLink⁵ and MTAps' prior assessment: regional capacity-building strategy, improved political economy and support for HTA in the region, and development of an HTA registry, which will be a global public good.

Under objective 2, MTAps made significant progress in implementation of the OHT, conducting regional and in-person training sessions in several countries. This included the completion of the Bangladesh Social Health Protection benefits costing and development of dissemination materials for pharmaceutical expenditure (PE) tracking standardization in the Asian region. Notably, MTAps completed PE tracking in Bangladesh for health commodity expenditure, producing a comprehensive report.

Under objective 3, in Y1 and Y2, MTAps collaborated with various stakeholders to bolster capacity within the medical product regulatory systems of ASEAN member states. In Y3-Y4, MTAps organized a regional training-of-trainers course focused on evaluation of biological products and vaccines, enhancing the knowledge and skills of regulatory assessors from ASEAN NRAs. A regional training course on good review practices for dossier evaluation processes in ASEAN member states further contributed to strengthening regulatory capacities. In Y4-Y5, MTAps worked closely with the WHO Southeast Asia Regulatory Office (SEARO) and SEARN to develop a regional capacity-building strategy, endorsed by the SEARN Assembly of the Members, to structure capacity building in regulatory functions. In Y3-Y4, MTAps undertook competency mapping and developed capacity-building plans for the NRAs of Bangladesh, Nepal, and the Philippines, with the aim of addressing competency gaps and improving

⁵ HTAsiaLink is a collaborative research network for HTA agencies in the Asia-Pacific region. The network started with an aim to strengthen HTA capacity through sharing HTA information, experiences, and resources among the members and beyond.

regulatory efficiency and effectiveness. In Y5, a regional webinar for the Asia region was organized to enhance pharmaceutical regulatory systems, identify existing needs and gaps, and discuss strategies for improvement.

Under objective 4, MTaPS collaborated with the Philippines DOH to analyze and evaluate procurement laws, rules, and policies, with a focus on enhancing strategic procurement mechanisms, particularly the PPM. MTaPS conducted an internal validation and finalization of the legal analysis report. The DOH submitted a policy proposal for PPM implementation to the Government Procurement Policy Board (GPPB) in 2023; the review is still going on, and there is no clear timeline for when the approval will happen. Anticipating potential delays, additional activities were identified and initiated, including generating evidence for selecting priority medicines and facilities (DOH-retained hospitals and local government units [LGUs]), assessing their capacity, and developing a generic implementation plan for PPM piloting once approved by GPPB. This multiphase approach included desk reviews, data collection, analysis, and interviews with selected LGUs and hospitals to establish criteria for selecting health products and facilities. The Y3 activity on COI concludes with the launch of the e-learning course on OpenWHO for public access that was developed by MTaPS in collaboration with WHO. Engagement is being monitored, particularly in India, Pakistan, Bangladesh, China, and Malaysia, where the course will be a mandatory module for pharmaceutical inspectors.

QUARTER 1/Y6 ACHIEVEMENTS AND RESULTS

OBJECTIVE 1: STRENGTHEN CAPACITY TO CONDUCT AND USE HTAs TO SUPPORT INSTITUTIONALIZATION OF TRANSPARENT AND EVIDENCE-BASED DECISION MAKING IN ASIAN COUNTRIES

Activity 1.1.1: TA to HTAsiaLink in shaping the HTA ecosystem in the Asia region

MTaPS continued to work with HTAsiaLink and its partners Health Intervention and Technology Assessment Program (HITAP) and Health Intervention and Policy Evaluation Research-National University of Singapore (HIPER-NUS) in implementing the three objective 1 priorities listed above. MTaPS developed a draft SOW for—and achieved technical alignment with—HITAP and HIPER-NUS. MTaPS completed support in finalizing the Philippines HTA Methods Guidelines on Clinical Equipment and Devices and cohosted a dissemination workshop with the Philippines Department of Science and Technology, supporting the country in improving access to lifesaving medical devices. This workshop was attended by local universities, who will be the entities implementing the methods as outlined in the guidelines. In this workshop, MTaPS also organized attendance from the Indonesia HTA Committee and Indonesian MoH, for a full-day session of sharing and learning between Indonesia and the Philippines.

OBJECTIVE 2: STRENGTHEN CAPACITY TO DEFINE AND COST EVIDENCE-BASED PHARMACEUTICAL COVERAGE AND PROMOTE TRANSPARENCY IN PHARMACEUTICAL PRICING TO IMPROVE VALUE IN PURCHASING IN ASIAN REGIONAL COUNTRIES

Activity 2.1.1: Strengthen capacity for PE tracking in Bangladesh

MTaPS developed and approved the SOW for the PE tracking training scheduled for February 2024 in Bangladesh. Some of the highlights for the deliverable in the SOW are updated training materials on PE tracking, a list of PE tracking champions endorsed by the HEU, and a report on the training program,

including a detailed transition and institutionalization plan for the HEU. MTaPS also started the review of the training materials.

OBJECTIVE 3: BUILD HARMONIZED, SUSTAINABLE, AND RESILIENT MEDICINE REGULATORY SYSTEMS IN ASIA

Activity 3.1.1: Advocate for adoption of global standards to support the development of regulatory information management systems (RIMS) for electronic transmission of information across national regulatory authorities in Asia

MTaPS, in collaboration with the USAID PQM+ program, engaged with ASEAN Pharmaceutical Product Working Group (PPWG), through USAID, to plan for a workshop for ASEAN NRAs to share their experiences (i.e., strategies, achievements, constraints, and challenges) regarding ongoing or past regulatory efforts and to review their existing RIMS against the minimum common standards repository established by MTaPS and the PQM+ program. The workshop is planned for quarter 2.

Activity 3.1.2: Implementation of priority capacity-strengthening activities of NRAs in Bangladesh and the Philippines

The MTaPS Asia Bureau through MTaPS country offices engaged both the DGDA (Bangladesh) and FDA (the Philippines) to review the training plans and prioritization of topics for TA. A concept note for agreed-upon topics for the DGDA has been developed, while discussions are still ongoing with the FDA. MTaPS plans to support implementation of priority areas identified in the training plans developed from the competency mapping exercise.

Activity 3.1.3: Develop a capacity-building action plan for the SEARN

MTaPS provided TA to SEARN through the guidance of SEARO to develop a capacity-building action plan. A draft outline including scope and objectives was agreed upon and presented to the SEARN working group (WG) on November 30, 2023, for discussion. A draft of the action plan was shared with SEARO/SEARN to circulate to member states for comments.

Activity 3.1.4: Global and regional dissemination of MTaPS regulatory systems-strengthening (RSS) work in Asia

MTaPS is documenting lessons learned from its work in the Asian region through the development of two manuscripts. A draft of the first publication, focusing on interventions addressing gaps in medicine registration, convergence, and reliance mechanisms, has been developed and is undergoing internal review.

Activity 3.1.5: Strengthen the capacity of NRAs in the ASEAN member states through regional harmonization

MTaPS engaged USAID and the PPWG in a meeting organized by the ASEAN Secretariat (ASEC) on November 9, 2023, and presented the progress of agreed-upon activities as well as the concept notes of planned activities for 2024. The meeting discussed the activity implementation and required approvals by the PPWG.

Activity 3.1.6: Support the development of a model for efficient regulation of medicines and vaccines by NRAs with very limited resources in the SEARN

MTaPS provided its input in the draft model for efficient regulations of medicines in a consultation meeting held on October 25–26, 2023, and participated in another review meeting on December 7, 2023. MTAps provided further technical review of the updated draft after incorporation of meeting feedback, on December 15, 2023.

OBJECTIVE 4: PHARMACEUTICAL SECTOR GOVERNANCE IN ASIAN COUNTRIES STRENGTHENED

Activity 4.1.1: (a) COI manual and e-learning course development (Y3)

Between the launch of the e-learning course on COI on the OpenWHO learning platform on October 20, 2023, and January 7, 2024, the site had over 37,000 visitors. The course saw a total of 2,110 enrollments, with 19% from India, 14% from Kenya, 5% from Malaysia, 5% from Pakistan, and 5% from Nigeria. To date, over 1,000 participants have received certificates of completion. In fact, the National Pharmaceutical Regulatory Agency of the MoH of Malaysia has made the course a compulsory module for all current and new inspector qualifications. Furthermore, the course will be featured in a presentation at the London School of Economics and Political Science since an abstract on the initial gap analysis and activities leading up to its development was accepted into a workshop on corruption and COI in health care from January 12 to 14, 2024.

Activity 4.1.1: (b) Conduct a review/assessment on procurement policy, organizational capacity, and technical competency in the Philippines (Y5)

MTaPS, in collaboration with IQVIA®, conducted analysis of available procurement/sales data and information obtained from key informant interviews (KIIs) to select priority health products and facilities (DOH-retained hospitals and LGUs) for piloting the PPM policy, based on set criteria. In addition, MTAps conducted a deeper analysis of the selected facilities to assess their capability to engage in PPM for the selected health products, including analysis on the model for demand pooling mechanisms for LGUs and DOH-retained hospitals, financial flows, and payment mechanisms. MTAps also developed an initial draft of the generic pilot implementation plan. The reports of the above-mentioned analyses and the generic implementation plan are under review and finalization by the MSH and IQVIA® technical team.

Activity 4.1.1: (c) Assess factors that affect health commodity procurement (bid) failures in the Philippines at the DOH level and identify key interventions to address challenges (Y6)

The DOH has been encountering a series of bid failures which has led to stockout of some vital health commodities and affected program implementations. With the objective of alleviating this challenge, MTAps started preliminary discussions with the DOH and private-sector representatives. Preliminary discussions with the public health services team and management services team of the DOH have resulted in obtaining a set of information that describes bid failures related to procurement of HIV, TB, and FP commodities by the DOH for the period 2021 to 2023. Rapid analysis of the data has provided good information, but it has not been adequate to establish the root causes of the bid failures. Accordingly, there is discussion on conducting a deeper analysis of the reasons for bid failures to guide recommendations and actions for improvement. A technical discussion with a representative of the Pharmaceutical and Healthcare Association of the Philippines (PHAP), which is an association of the

multinational pharmaceuticals, provided operational and legal factors contributing to bid failures, though some must be validated by stakeholders.

BEST PRACTICES/LESSONS LEARNED

- Given the diverse stakeholders for HTA in Asia, a collaborative and codesign approach is needed to ensure alignment of technical activities in the region.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
<p>Activity 1.1.1: TA to HTAsiaLink in shaping the HTA ecosystem in the Asia region</p> <p>Activity description: Continue working with HITAP and HIPER-NUS, with an aim to process subcontract by the end of quarter 2</p>	March 2024
<p>Activity 2.1.1: Strengthen capacity for PE tracking in Bangladesh</p> <p>Activity description: Conduct PE tracking training in Bangladesh</p>	March 2024
<p>Activity 3.1.1: Advocate for adoption of global standards to support the development of RIMS for electronic transmission of information across NRAs in Asia</p> <p>Activity description: Coordinate with the PQM+ program the planning of the workshop, including supporting participants from the Philippines as well as finalizing arrangements for travel to the workshop for the MTaPS Senior Technical Advisor</p>	March 2024
<p>Activity 3.1.2: Implementation of priority capacity-strengthening activities of NRAs in Bangladesh and the Philippines</p> <p>Activity description: Develop an implementation plan for the identified trainings for clinical trials, draft SOW for consultant recruitment, and plan logistics meeting with Bangladesh country office for the training planned for March 2024</p>	March 2024
<p>Activity 3.1.3: Develop a capacity-building action plan for the SEARN</p> <p>Activity description: Conduct weekly meetings with SEARO for the development of the plan, attend and present progress in SEARN WG meetings, and review and address comments on the draft plan from SEARN member states</p>	March 2024
<p>Activity 3.1.4: Global and regional dissemination of MTaPS RSS work in Asia</p> <p>Activity description: Continue to review the manuscript on convergence, draft manuscript on workforce development, and plan for a dissemination conference (International Conference of Drug Regulatory Authorities or other international conferences) for RSS work done in Asia</p>	March 2024
<p>Activity 3.1.5: Strengthen the capacity of NRAs in the ASEAN member states through regional harmonization</p> <p>Activity description: Continue to engage with PPWG through USAID for approval of the implementation plan, recruit consultant, and plan for the invitations for the workshop as well as conducting the workshop</p>	March 2024
<p>Activity 3.1.6: Support the development of a model for efficient regulation of medicines and vaccines by NRAs with very limited resources in the SEARN</p> <p>Activity description: Provide technical review of the draft model and participate in consultative meetings with the NRAs to provide TA</p>	March 2024
<p>Activity 4.1.1: (a) COI manual and e-learning course development (Y3)</p> <p>Activity description: Present the research, gap analysis, workshops, course development, and OpenWHO launch at the workshop on corruption and COI in health care at the London School of Economics and Political Science from January 12 to 14, 2024</p> <p>Activity 4.1.1: (b) Conduct a review/assessment on procurement policy, organizational capacity, and technical competency in one Asian country (the Philippines) (Y5)</p> <p>Activity description:</p>	March 2024

Activity and Description	Date
<ul style="list-style-type: none"> ▪ Obtain feedback from DOH stakeholders on the deliverables: selection of products, facilities, facility capabilities, and generic pilot implementation plan ▪ Finalize the deliverables and submit them to the DOH and USAID <p>Activity 4.1.1: (c) Assess factors that affect health commodity procurement (bid) failures in the Philippines at the DOH level and identify key interventions to address challenges (Y6)</p> <p>Activity description:</p> <ul style="list-style-type: none"> ▪ Further analyze the available information and determine the need and scope of further data collection and analysis ▪ Finalize the deliverables and submit them to DOH and USAID <p><i>For both activities:</i> Compile and hand over resources to USAID Philippines and IPs</p>	

Table 24. Quarter I, FY24, Activity Progress, Asia Regional Bureau

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.1.1: TA to HTAsiaLink in shaping the HTA ecosystem in the Asia region	5.1	MTaPS achieved technical alignment with HTAsiaLink and its partners HITAP and HIPER-NUS.
Activity 2.1.1: Strengthen capacity for PE tracking in Bangladesh	1.1, 2.3, 4.1, 5.3	MTaPS developed and validated the SOW for the PE tracking training in Bangladesh.
Activity 2.1.2: Develop a journal paper manuscript using the Indonesian PE data and submit to a peer-reviewed journal	2.4.3	MTaPS developed a concept note that will inform development of the manuscript for the peer-review journal paper showing the PE tracking implementation experience across 3 countries.
Activity 3.1.1: Advocate for adoption of global standards to support the development of RIMS for electronic transmission of information across NRAs in Asia	2.4.3	MTaPS engaged with the PQM+ program to plan for the workshop to advocate for the adoption of RIMS. The workshop is proposed for the week of February 26 to March 1, 2024.
Activity 3.1.2: Implementation of priority capacity-strengthening activities of NRAs in Bangladesh and the Philippines	2.4.3	MTaPS engaged with the DGDA (Bangladesh) and FDA (the Philippines) to plan review of the training plans and plan for implementation of priority training for the regulatory personnel. Feedback from the DGDA that proposes a workshop in quarter 2 was received.
Activity 3.1.3: Develop a capacity-building action plan for the SEARN	2.4.3	MTaPS developed a draft plan that was presented to the WG meetings for review and comments from SEARN member states. The feedback was incorporated into the plan and reshared for further input by the member states.
Activity 3.1.4: Global and regional dissemination of MTAAPS RSS work in Asia	5.1	A manuscript on convergence of medicine registration was developed and is under review. Discussions were held on the journal requirements for the manuscript on workforce development under drafting.
Activity 3.1.5: Strengthen the capacity of NRAs in ASEAN member states through regional harmonization	2.4.3	A meeting was held with USAID and PPWG on November 9, 2023, that reviewed implemented activities and planned activities. Implementation plans were shared for the activities and are under PPWG review.
Activity 3.1.6: Support the development of a model for efficient regulation of medicines and vaccines by NRAs with very limited resources in the SEARN	2.4.3	MTaPS provided technical input in the model for the efficient regulation of medicines and vaccines for NRAs with limited resources through a consultative meeting in October and a review meeting in December 2023.
Activity 4.1.1: (a) COI manual and e-learning course development (Y3)	1.1.2	The COI course was uploaded to OpenWHO in October 2023, and the activities leading up to its development and engagement on the site will be showcased at a workshop at the London School of Economics and Political Science in January 2024.
Activity 4.1.1: (b) Conduct a review/assessment on procurement policy, organizational capacity, and technical competency in one Asian country (the Philippines) (Y5)	4.1.1	MTaPS conducted analysis of available sales data and information obtained from KILs to select priority health products and facilities for piloting the PPM policy, based on set criteria. In addition, MTAAPS assessed selected facilities' capability to engage in PPM. MTAAPS also developed an initial draft of the generic pilot implementation plan.

Activity	MTaPS Objective(s)	Activity Progress
<p>Activity 4.1.1: (c) Assess factors that affect health commodity procurement (bid) failures in the Philippines at the DOH level and identify key interventions to address challenges (Y6)</p>	<p>4.1.1</p>	<p>Preliminary discussions with relevant DOH departments have resulted in obtaining a set of information that describes bid failures related to procurement of HIV, TB, and FP commodities and the types of products that are prone to it. A technical discussion with a representative of PHAP provided operational and legal factors contributing to bid failures.</p>

6. PROGRESS IN ACHIEVING CONTRACT DELIVERABLES

Table 25. FY24 quarter I progress in achieving contract deliverables

Contractual Deliverable	Due Date	Submission Date
Annual report of government property in contractor’s custody	None specified	10/27/23
Quarterly and annual performance report	10/31/23	10/30/23
Subcontracting report (eSRS)	10/30/23	10/19/23
Environmental monitoring and mitigation plan	10/31/23	10/27/23

7. PROGRAM SPOTLIGHT

Driving Effective Antibiotic Use Across Health Sectors in Jordan

Collaborating to Empower Youth in Jordan to Combat Antimicrobial Resistance

Rationalizing the Use of Antimicrobials in Jordanian Public Hospitals

Strengthening IPC Practices in Jordan

Strengthening Health Technology Assessment Capacity in Indonesia

Supporting Indonesia's First Pharmaceutical Expenditure Tracking



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

Driving Effective Antibiotic Use Across Health Sectors in Jordan

SUCCESS STORY

AMR kills hundreds of thousands of people globally each year, with most of these deaths occurring in developing countries. The MTAps AMS Program (ASP) addressed the challenges of antibiotic misuse and overuse in Jordan through collaboration with the MOH and the RMS. By utilizing evidence- and consensus-based approaches, the program turned clinical guidelines into implementable localized protocols.

Antimicrobial resistance (AMR) is one of the top global public health and development threats, contributing to millions of deaths globally. Hundreds of thousands of these deaths occur in developing countries annually. The USAID MTAps Program supports the Jordanian MOH in implementing a NAP-AMR to address this health crisis in alignment with the program's objective to enhance pharmaceutical services, product availability, and patient-centered care to achieve optimal health outcomes. MTAps strategically crafted an ASP tailored for health care facilities, aiming to support both the MOH and the RMS—pivotal health care providers in Jordan—in executing the NAP-AMR.

Within this program, collaborative efforts between clinical and administrative teams at MOH and RMS hospitals have resulted in the development and dissemination of pivotal protocols. These protocols indicate significant progress in updating and standardizing the use of antimicrobials, particularly in treating critically ill patients within ICUs and offering prophylaxis in select priority clinical areas, including urinary tract infections (UTIs). Building upon the accomplishments of the previous year, these stakeholders are now primed to implement and institutionalize these antibiotic protocols. This concerted effort signals a transformative era, marked by patient-centric care and optimized health outcomes.

AMS at MOH Hospitals: Surgical Prophylaxis and UTI Treatment

Under the guidance of the assigned MOH counterparts, MTAps supported AMS committees from Mafraq Hospital and Salt Hospital in developing and finalizing four antibiotic prophylaxis protocols for select surgical procedures and one antibiotic treatment protocol for UTIs. The protocols were then reviewed by the MOH Central Pharmaceutical and Therapeutics Committee before being submitted to and approved by the Minister of Health, who then disseminated them to all 31 MOH hospitals for implementation.

Antibiotic Prophylaxis Protocol for Arthroplasty Surgeries (Penicillin or Cephalosporin)

Prophylactic Antibiotics of Choice		Beta-Lactam Allergy (Penicillin or Cephalosporin)	
Adults	Cefazolin Single dose: • 2 g if patient's weight <100 kg • 3 g if patient's weight ≥100 kg • IV infusion over 15 minutes • Within 30-60 minutes prior to incision	AND	Vancomycin Single dose: • 15 mg/kg up to 7g • IV infusion. See table (2) • Within 120 minutes prior to incision
Pediatrics	Cefazolin Single dose: • 10 mg/kg up to 7g • IV infusion over 15 minutes • Within 30-60 minutes prior to incision	AND	Vancomycin Single dose: • 15 mg/kg • IV infusion. See table (2) • Within 120 minutes prior to incision
Adults		OR	Clindamycin Single dose: • 600 mg • IV infusion over 20 minutes • Within 120 minutes prior to incision
Pediatrics		OR	Clindamycin Single dose: • 10 mg/kg up to 600mg • IV infusion over 15-20 minutes, according to the dose • Within 20 minutes prior to incision

Supplementary Information

Criteria for Additional Doses:

- Cefazolin: 1st surgery only (not for a 2nd, 3rd, or 4th consecutive dose from the first incision, see table (1)).
- Vancomycin: more than 15 consecutive doses to prevent emergence.
- Clindamycin: 1st surgery only (not for a 2nd, 3rd, or 4th consecutive dose from the first incision, see table (1)).
- Vancomycin: more than 10 consecutive doses for Clindamycin (not for a 2nd, 3rd, or 4th consecutive dose).

Table (1): Reducing According to Creatinine Clearance

Antibiotic	CrCl ≥ 30	CrCl 15-29	CrCl 5-14	CrCl < 5
Cefazolin	2 g	1.5 g	1 g	0.5 g
Clindamycin	600 mg	450 mg	300 mg	150 mg
Vancomycin	15 mg/kg	10 mg/kg	7.5 mg/kg	5 mg/kg

Table (2): Vancomycin Infusion Dose and Duration of Administration

Weight (kg)	Duration of Administration
10	15 minutes
15	20 minutes
20	25 minutes
30	30 minutes

MOH surgical prophylaxis protocol for arthroplasty surgeries

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.

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MTaPS played a pivotal role in not just protocol development but also in ensuring their effective integration.

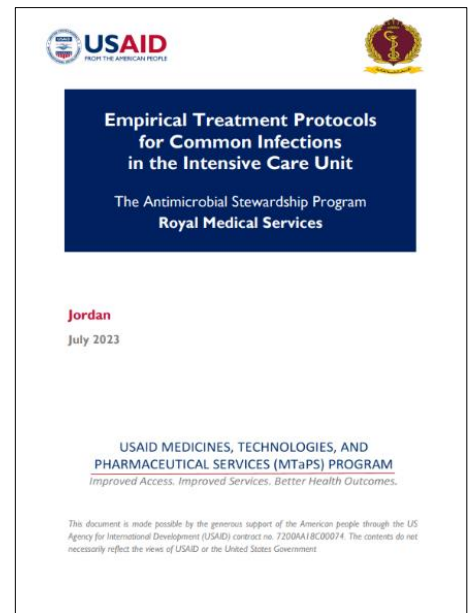
Technical support extended to the MOH Institutional Development and Quality Control Directorate (IDQCD) and the PCPD facilitated the creation of essential protocol implementation audit tools and key performance indicators (KPIs). Moreover, the collaborative effort resulted in the establishment of an institutional policy, jointly sanctioned by IDQCD and PCPD. This policy serves as a compass, steering the RUA protocols consistently across all MOH hospitals. The impact of these concerted efforts transcends the mere introduction of protocols. They symbolize a paradigm shift, nurturing a culture of continuous improvement and adaptability within health care facilities. By disseminating invaluable lessons and best practices, this initiative sets a new standard in AMS nationwide.

AMS at RMS: Managing Common ICU Infections

Based on a request from the RMS to USAID Jordan, MTaPS added AMR activities for the ICU of Al-Hussein Hospital in Amman—the largest RMS tertiary center in the country. In collaboration with the hospital leadership, MTaPS activated the central AMR committee, updated its terms of reference, and initiated the RMS AMS program. Through a collaborative approach, the AMR committee developed 27 empirical treatment protocols addressing priority infections in the ICU. With MTaPS’ support, the committee also made necessary updates to existing RMS microbiology lab policies. These measures were taken in response to the heightened risks posed by drug-resistant infections in critically ill patients, aiming to strengthen the hospital’s approach to AMR containment and enhance patient care in the ICU.

In collaboration with the quality department at Al-Hussein Hospital, MTaPS supported the development of audit tools and KPIs to monitor the implementation of the 27 ICU protocols, further institutionalizing protocol implementation and sustaining continuous quality improvement. The intervention in RMS hospitals not only elevates patient care in critical settings but also paves the way for disseminating best practices throughout the health care system. This initiative promises widespread impact, combating AMR and promoting sustainable health care practices countrywide.

MTaPS’ collaboration with the MOH and RMS underscores a paradigm shift in pharmaceutical services. Through knowledge dissemination, stakeholder engagement, and rigorous monitoring, a sustainable framework for AMS has taken root, promising enduring enhancements in patient care.



The RMS 27 Empirical Treatment Protocols for Common Infections in the ICU



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SUCCESS STORY

USAID MTaPS and the MOH SHD developed the CASS program to raise awareness of AMR among young students in Jordan. MTaPS, in coordination with SHD, implemented CASS activities in all health directorates across the country, reaching over 2,000 students. The SHD aims to extend CASS activities to more schools for lasting community-wide change.

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.

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USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTAPS) PROGRAM

Collaborating to Empower Youth in Jordan to Combat Antimicrobial Resistance

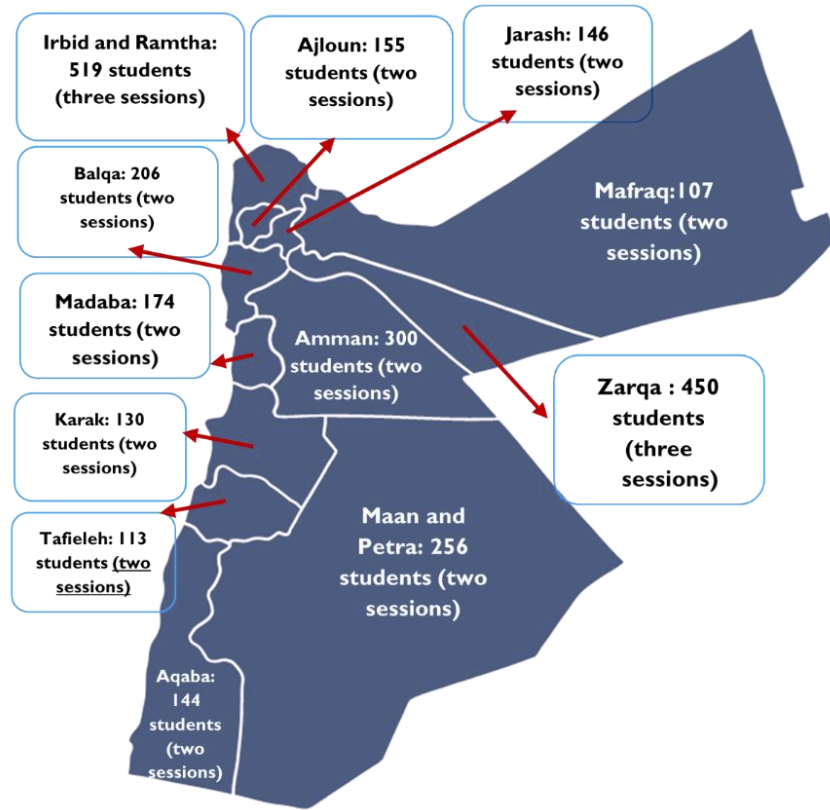
According to the WHO, AMR kills about 700,000 people worldwide annually, with the majority of those deaths occurring in developing countries. Jordan's MOH is implementing a NAP-AMR to address this challenge. In Jordan, young people (aged 12–30 years) constitute around 36 percent of the population; therefore, it is imperative to focus on AMR education specifically tailored to adolescents. Misconceptions about antimicrobials and AMR could be addressed with proper health education actions, ensuring that future adults are well-informed, make responsible choices, and avoid unnecessary use of antibiotics, which would ultimately contribute to reducing the impact of AMR on the community.

Collaborative Initiatives: Educating through Communication and Awareness

Aligned with its objective to enhance pharmaceutical services, product availability, and patient-centered care, the USAID MTaPS Program collaborated with the MOH SHD and the Ministry of Education (MOE) to develop a CASS program. This program was designed to disseminate messages related to AMR among young students and help shape their perceptions of antimicrobial use before they develop potentially harmful attitudes and behaviors. MTaPS developed awareness messages with stakeholders based on the latest evidence, with a focus on priority messages. MTaPS, in coordination with SHD, implemented the CASS activities during 2023 in all health directorates across the country, reaching over 2,000 students.

Ensuring Sustainable Impact

Ensuring the sustained momentum of CASS initiatives, the seamless integration of CASS activities into the NAP-AMR 2023-2025 by the SHD stands as a testament to sustainable endeavors. Bolstered by this success, the SHD aims to propel the impact further by extending CASS activities to more schools, marking a stride toward lasting community-wide change. This collaborative commitment ensures the enduring legacy of CASS, paving the way for a generation equipped to combat AMR and foster a healthier tomorrow.



30 Awareness Sessions Reached
2,700 Students Across
 Jordanian Governorates



30 Health Educators from all Health Directorates trained on delivering AMR awareness messages

1417 Female students reached with AMR awareness messages



1283 Male students reached with AMR awareness messages



Information, education, and communication materials distributed to students during the awareness sessions.



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USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTAPS) PROGRAM

SUCCESS STORY

AMR kills hundreds of thousands of people globally every year, with most of these deaths occurring in developing countries. The RUA program addressed the challenges of antibiotic misuse and overuse in Jordan through collaboration with the MOH and technical support from the USAID MTaPS Program. By utilizing evidence- and consensus-based approaches, the program turned clinical guidelines into implementable localized protocols.

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.

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Rationalizing the Use of Antimicrobials in Jordanian Public Hospitals



Central and hospital-level teams discussing antimicrobial protocols during the RUA workshop for Al Mafrq Hospital. Photo credit: MTaPS Jordan

The misuse and overuse of antimicrobials are the main drivers in the development of antimicrobial resistance (AMR), which contributes to hundreds of thousands of deaths in developing countries globally. To address this health crisis, Jordan's MOH is implementing a NAP-AMR. The USAID MTaPS Program designed the RUA program at the health facility level to help the MOH with NAP-AMR implementation. In this program, clinical and administrative teams at MOH hospitals collaboratively developed key protocols to update and standardize the use of antimicrobials in the treatment of or prophylaxis for select priority clinical areas.

Stakeholder Engagement

In October 2022, MTaPS provided governance support by engaging central-level stakeholders from the Communicable Diseases Directorate, Institutional Development and Quality Control Directorate, PCPD, Nursing Directorate, Central Laboratories Directorate, the Allied Medical Professions Directorate, and the Procurement and Supply Directorate. MTaPS then engaged health facility AMS teams from two main hospitals in Jordan—Al Salt Hospital and Al Mafrq Governmental Hospital—to identify priority clinical areas for AMR interventions.

Identified Priority AMR Interventions

Al Salt Hospital identified surgical antibiotic prophylaxis for arthroplasty surgeries and orthopedic surgeries (including spine) as a priority.

The hospital also identified challenges with the management of different cases of urinary tract infections (UTIs) leading to an overuse of antibiotics. Therefore, developing surgical antibiotic prophylaxis protocols as well as UTI management protocols will help rationalize the use of antimicrobials in the hospital. Similarly, Al Mafraq Governmental Hospital identified surgical antibiotic prophylaxis for hernia repair surgeries and appendectomy surgeries as a priority based on the frequency of performing those types of surgeries at the hospital. Following a series of successful technical workshops, MTaPS supported the hospital's AMS teams to finalize the antibiotic prophylaxis and treatment protocols and submitted them to the MOH PCPD for final review. During the last week of February, the Central Pharmacy and Therapeutics Committee approved these protocols, which is considered a huge step for institutionalization.

Ministerial Approval

The PCPD shared the protocols with the Minister of Health, His Excellency, Prof. Firas Al-Hawari, who approved the protocols for dissemination. Dissemination of the developed protocols will help institutionalize implementation across MOH hospitals. In addition, MTaPS supported the Institutional Development and Quality Control Directorate in developing a compliance-monitoring package, which includes key performance indicators and related audit tools to ensure adherence of hospital teams to the developed protocols.



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USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTAPS) PROGRAM

Strengthening IPC Practices in Jordan

SUCCESS STORY

The MTaPS Program, aimed at addressing IPC in Jordan through collaboration with the MOH, utilizes evidence- and consensus-based approaches to leverage IPC best practices across the country. It empowers health care professionals, ensuring a unified approach toward safeguarding public health.



Two group photos from the MOH and RMS certification ceremonies for the IPC focal points during June 2023, and snapshots from the IPC training sessions for primary health care (PHC) during February 2023. Photo credit: MTaPS Jordan.

Optimal IPC practices are essential to support the provision of high-quality and safe health care services. Strengthening the capacities of IPC personnel is critical not only to protect patients but also to protect health care workers and decrease the spread of infections. In Jordan, the ACIPC requested support from the USAID MTaPS Program to standardize IPC training across different sectors. In pursuit of MTaPS objective 4—enhancing pharmaceutical services, product availability, and patient-centered care—the collaboration between the MOH, HCAC, and MTaPS has yielded significant advancements.

Certified IPC Health Care Preventionists at MOH Hospitals

MTaPS, in collaboration with HCAC, responded to the call for standardized IPC training. A certified IPC training curriculum was meticulously crafted, aligning with the identified priorities of the ACIPC, MOH, and the RMS. The program identified IPC focal points from health care facilities and administrative units, sponsoring their training. The comprehensive curriculum on essential and up-to-date IPC best practices encompassed didactic sessions and practical components, enabling trainees to implement their newfound capacities within their respective facilities. Recognition ceremonies held by MTaPS in coordination with MOH acknowledged and certified 63 participants—35 from MOH and 28 from RMS—who completed the rigorous training program requirements.

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.

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Expansion to PHC Providers

Simultaneously, efforts extended to fortify infection control in PHC settings. MTaPS, alongside the MOH IPC Department (IPCD), empowered IPC focal points from all 14 HADs in the country through extensive training sessions. The incorporation of training of trainers' strategy equipped HAD IPC focal points to further train 68 IPC focal points from PHC centers across Jordan. This cascading approach ensured the institutionalization and sustainability of capacity building efforts in IPC practices within PHC settings.

National IPC Assessment: Charting a Roadmap for a Unified IPC Practices in Dental Settings

The pursuit of standardized IPC practices within dental settings underwent significant strides as MTaPS developed a robust IPC assessment tool aligning with evidence-based international standards. In collaboration with the Epidemics Administration, MOH, Dental Directorate, and IPCD, MTaPS is establishing grounds for providing comprehensive technical and logistical support to conduct an IPC assessment encompassing dental clinics from both the MOH and the private sector during 2024.

These collaborative initiatives—spanning training, implementation, and national IPC assessment—lay the foundation for standardized IPC practices across Jordan's health care spectrum. It empowers health care professionals, ensuring a unified approach toward safeguarding public health.



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USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTAPS) PROGRAM

SUCCESS STORY

In Indonesia, stakeholders submit health product suggestions to the Ministry of Health—in a process known as topic selection—for inclusion in the national budget. Not all of the suggestions can be included, and prioritization is needed for the assessment phase. The USAID MTaPS Program supports the topic selection process through a multicriteria decision-making method to determine health technology priorities each year.

Strengthening Health Technology Assessment Capacity in Indonesia



Health technology topic selection manual development in Indonesia, March 16–18, 2023

About USAID MTaPS

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Indonesia's Universal Health Coverage initiative, known as *Jaminan Kesehatan Nasional* (JKN), has benefited 94.64 percent of the population since it was established in 2014. JKN aims to provide affordable health care to all individuals, covering a wide range of medical needs, from basic flu treatments to costly cancer therapies. However, the program has faced challenges such as overspending and financial strain, highlighting the need for improvement.

To address the challenges, the Ministry of Health (MOH) created the Indonesian Health Technology Assessment Committee (InaHTAC) comprising experts and academic representatives and tasked it with conducting research to evaluate JKN's services and providing input to improve and optimize public health spending.

Evaluating Health-Related Products

InaHTAC conducts extensive evaluations of drugs, medical devices, and procedures covered by JKN to examine new and existing treatment options that may prove more effective or cost-efficient. Due to resource limitations, the committee must prioritize which research topics or technologies to evaluate to maximize the impact of JKN's services—a product called topic

selection. InaHTAC reviews suggestions from doctors' associations, hospitals, universities, industries, and other stakeholders about new products for JKN coverage.

“Topic selection is an important part of the entire HTA process. It is often overlooked and tends to exhaust our resources. We need to untangle the complex process into something that is efficient, manageable, and even understood by our partners.”

- Armansyah, Center for Health Financing and Decentralization Policy, Ministry of Health

Streamlining the Process

The U.S. Agency for International Development (USAID), through its Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program, collaborated with InaHTAC and the Center for Health Financing and Decentralization Policy at the MOH to streamline the topic selection process through a series of workshops between USAID and stakeholders. These workshops:

- **Simplified topic submission** to make it easier for stakeholders to submit their topics, doubling completed document submissions from stakeholders from 19 topics in 2021 to 41 topics in 2022
- **Reduced the selection criteria** from eight to six, with simpler indicators—allowing stakeholders to better understand the expectations and align their submissions
- **Enhanced information management** by developing an operational manual to better manage the influx of suggestions from stakeholders and ensure proper documentation and organization of information
- **Improved submission feedback** from InaHTAC to foster continuous improvement of submissions and collaboration between InaHTAC and stakeholders.

In addition to the streamlined topic selection process, the USAID MTAps advised monitoring and evaluation for continuous improvement of the process. In the future, the topic selection process will be more inclusive, and InaHTAC and the MOH can receive more input to improve the JKN, including from patients.

Strengthening HTA Capacity

Improving HTA capacity for rational and systematic decision-making has increased the impact of InaHTAC's policy recommendations to cover the most cost-effective medicines, devices, vaccines, and procedures. It also streamlines the JKN benefits package.

Moving forward, USAID MTAps is supporting development of a manual on HTA topic selection to guide daily operations of the process. The manual will be used as the main reference for InaHTAC and the Center for Health Financing and Decentralization Policy when they call for HTA topics in upcoming cycles. USAID MTAps will also use advanced study methods to strengthen the HTA appraisal process for the Center for Health Financing and Decentralization Policy and HTA agencies.



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USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTAPS) PROGRAM

SUCCESS STORY

Like many other countries, Indonesia faces challenges in the comprehensive tracking and analysis of pharmaceutical expenditures. The USAID MTaPS Program stepped up to train Indonesia's Health Accounts team on collecting, analyzing, and using PE data to inform decision-making. This initiative—the first of its kind in Indonesia—will help the Health Accounts team identify ways to improve transparency, governance, and efficiency in pharmaceutical spending.

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.

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Supporting Indonesia's First Pharmaceutical Expenditure Tracking



Capacity building on PE tracking in Indonesia, May 9-13, 2023

Pharmaceuticals constitute about 20% to 50% of total health expenditures in low- and middle-income countries (WHO 2022). Access to accurate pharmaceutical expenditure (PE) data, and the knowledge to use these data effectively, are necessary to inform government, donor, and partner decisions, for example about resource allocation and strategic purchasing. However, detailed PE data are often omitted from expenditure estimates or are insufficiently captured. Though some guidelines exist on improving the accuracy of PE, there is not currently information available on what type of data to collect and how to analyze and map that data for low- and middle-income countries.

Recognizing the need for accurate estimates of PE, the U.S. Agency for International Development (USAID)'s Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program, in collaboration with the USAID Local Health System Sustainability project, produced a resource that helps country health accounts teams to more accurately track pharmaceutical spending through the World Health Organization's System of Health Accounts (SHA) 2011 framework. The first draft of the PE guideline was piloted in three countries before being implemented in Indonesia.

USAID MTaPS' Approach for PE Tracking Implementation in Indonesia

In July 2021, USAID MTaPS initiated two years of targeted technical assistance activities to support Indonesia in its first attempt at PE tracking using the SHA 2011 framework. The objective was to strengthen the Health Accounts team's production of PE data and to enable policymakers to use the PE data for policymaking in the pharmaceutical sector. The activities also aimed to institutionalize transparent and evidence-based pharmaceutical decision-making and strengthen pharmaceutical sector governance.

The implementation process started with a landscape study to map PE data sources in the country. The mapping provided a comprehensive picture of how pharmaceutical spending happens, how information on spending is captured and organized, and gaps in the data. The study was done through a consultative process involving key policy actors in PE implementation, and addressed knowledge gaps while obtaining stakeholders' buy-in to support PE institutionalization.

Making the Case for PE Tracking and Navigating Challenges to Achieve Results

USAID MTaPS succeeded in showing the country the value of implementing PE tracking nationally. At first, national PE data collection and analysis was challenging due to the large volume of data, various data sources, and multiple players. USAID MTaPS worked with the Health Accounts team to identify key variables to include in the dataset and developed data compilation tools to collect, compile, and organize the data.

The first known Indonesian PE was disseminated in December 2022, and the data were incorporated into the country's health accounts results. This will help identify areas to improve transparency, governance, and efficiency in pharmaceutical spending.

“Thanks to the USAID MTaPS program, PE tracking was conducted for the first time in Indonesia, and the results became part of the Health Account 2021 Report. We hope that USAID will continue its assistance to improve the system to support tracking of PE in Indonesia.” Dr. Prasuti Soewondo, S.E., M.PH., PhD, the Special Staff of Minister of Health

Supporting Institutionalization

In 2023, USAID MTaPS continued to conduct PE tracking training for health accounts staff. The program will continue working with the Ministry of Health and Indonesian pharmaceutical stakeholders to build capacity and institutionalize the PE tracking process for more efficient health resource allocation toward achieving universal health coverage.



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8. MONITORING, EVALUATION, RESEARCH, & LEARNING

A. MONITORING & EVALUATION

QUARTER I PROGRESS

DEVRESULTS DATA AND DASHBOARDS

The MTaPS Home Office (HO) MERL team updated the DevResults data management software with the performance monitoring indicators and the corresponding targets that were approved by USAID for each country and portfolio's PY6 work plan. The DevResults system continues to be used as the key platform for data submission by countries and portfolios followed by a validation by the HO MERL team. The HO MERL team used historical data in DevResults to create data reference sheets, which were shared with MTaPS countries closing operations. This was done to ensure easy access to all the data for active review and reflection on the key successes and challenges and to encourage inclusion of quantitative evidence of progress over time, in the end-of-project summaries and presentations as needed. Power BI dashboards continued to be used for performance-monitoring data visualizations. In all country-specific meetings with the country M&E staff and technical staff, the HO M&E team continues to emphasize the use of Power BI dashboards for understanding the progress of a country/portfolio toward the project's objectives and sub-objectives.

M&E CLOSEOUT COORDINATION

In PY6 Quarter I, the HO M&E team worked with all MTaPS countries to ensure that all the M&E-specific tasks are completed before the closeout date for each country. In each country-specific meeting, the HO M&E team shared key roles and responsibilities specific to closeout and provided country-specific timelines based on operational closeout dates. Some of the M&E closeout tasks include submission of the latest performance monitoring data in DevResults, a discussion on progress toward targets, review and reflection on the historical data, and integration of any key performance-monitoring data evidence in end-of-project reports, summaries, and presentations, etc. Each country will continue to follow its timeline to make sure all key tasks are completed by the tailored deadlines provided.

COVID-19 IN-COUNTRY ACTIVITY REPORTS

MTaPS COVID-19 activities were completed in Philippines and Tanzania before PY6. Madagascar and Côte d'Ivoire have continued their activities and have reported performance-monitoring data on selected indicators in PY6 Quarter I. Cameroon has also continued COVID-19 activities in PY6 Quarter I; however, Cameroon's ongoing activities are not covered under any COVID-19-specific indicators. Cameroon provided narrative description of their ongoing work in PY6 Quarter I. In Kenya and Rwanda, with the newly approved PY6 work plans, COVID-19 activities will begin at the start of PY6 Quarter 2, and thus monitoring data will be available by the end of PY6 Quarter 2.

DQA

High-quality data continued to be a focus of the M&E teams at the HO and country levels. The teams consistently referred to the DQA SOP to ensure timely, accurate, and complete data are submitted.

ACTIVITIES & EVENTS FOR NEXT QUARTER

Activity & Description	Date
M&E closeout coordination with all active MTaPS countries	January–March 2024
Data review and reflection to understand key successes and challenges	Ongoing
Integration of performance-monitoring data in the end-of-project narrative to highlight key results	January–March 2024

B. KNOWLEDGE MANAGEMENT AND LEARNING

QUARTER I PROGRESS

TECHNICAL DOCUMENTATION

During quarter I, MTaPS developed 24 technical briefs and highlights to address learning questions:

Asia Bureau: Using the One Health Tool to Allocate Pharmaceutical Budgets. MTaPS developed a technical highlight to respond to the learning question: What strategies and information are required for policymakers in the Ministry of Health, through using the OHT, to appropriately allocate budgets for pharmaceuticals?

Asia Bureau: Strengthening Medical Products Registration in the Asia Region. MTaPS developed a technical brief on its support for NRAs to improve regulatory capacity, streamline regulatory processes, and adopt best practices in medical product registration and marketing authorization. This technical brief addresses the following learning question: How will medical products registration contribute to the improvement of overall regulatory systems strengthening?

Strengthening Health Management Information Systems for PSCM in Bangladesh. MTaPS developed a technical highlight on efforts to implement information management systems (e.g., eAMS, DGFP eLMIS, DGHS eLMIS, and QuanTB) that facilitate data-driven decision-making by system users and managers. This technical highlight addresses the following learning question: What are the critical lessons learned in strengthening the capacity of national- and subnational-level managers to use data from the various information management systems for monitoring performance and decision-making processes?

Strengthening IPC at the National and Health Care Facility Levels in Bangladesh. MTaPS developed a technical brief on supporting IPC governance structures at the national and subnational levels, conducting facility-level IPC assessments, and building capacity for improved IPC practices. This technical brief addresses the following learning question: What are the lessons learned from strengthening IPC governance capacity and practice at the national and facility levels in Bangladesh?

Introducing Comprehensive Electronic Recording and Reporting for TB in Bangladesh. MTaPS developed a technical brief on e-TB Manager, a web-based national electronic TB recording and reporting system that improves the ability to adjust patients' treatment regimens in a timely manner. This technical brief addresses the following learning question: What are the critical success factors in the implementation and use of e-TB Manager in Bangladesh?

Building MSC to Combat AMR in Burkina Faso. MTaPS developed a technical highlight on use of the One Health platform as a mechanism for partner collaboration, an essential approach to strengthening global health security. This technical brief addresses the following learning questions: What are the key factors enabling or hindering MSC on AMR at the national level? How can MSC efforts be sustained?

Strengthening MSC to Contain AMR in Cameroon. MTaPS developed a technical highlight on lessons learned from using the One Health platform to improve MSC and to ensure updating of Cameroon's

national action plan for AMR. This technical brief addresses the following learning question: What are the critical lessons learned in the strengthening of MSC bodies on AMR?

Advancing AMS in Côte d'Ivoire. MTaPS finalized a technical brief on establishing DTCs and building their AMS capacity, resulting in an increased number of functional DTCs with improved AMS assessment scores. This technical brief addresses the following learning question: How has the functionality of DTCs improved with MTaPS-supported interventions?

Strengthening AMS in Ethiopia. MTaPS completed a technical brief summarizing efforts for addressing AMR by optimizing use of antimicrobial medicines through improved AMS and overcoming barriers to building institutional capacity for AMS. This technical brief addresses the following learning question: What are the primary barriers to building institutional capacity in AMS? How can these barriers be overcome in the Ethiopian context?

Strengthening MSC for Combating AMR in Ethiopia. MTaPS completed a technical brief on strengthening governance structures for effective coordination of AMR containment in Ethiopia. This technical brief addresses the following learning question: What are the critical drivers for sustainable improvements in MSC on AMR?

Mapping Pharmaceutical Expenditure Data Sources in Indonesia. MTaPS developed a technical brief describing the program's efforts to identify sources of pharmaceutical expenditure data and build the capacity of Indonesia's HA team to track, collect, and analyze pharmaceutical expenditure data. This technical brief addresses the following learning question: What are the key policy questions related to pharmaceutical expenditure in Indonesia and what are the necessary adaptations to the general pharmaceutical expenditure tracking guidelines for the Indonesian context?

Strengthening the Health Care Priority-Setting Process in Indonesia. MTaPS developed a technical brief on the program's role in improving HTA in Indonesia, including improving the topic identification, selection, and prioritization process for better evaluation of health technologies and interventions. This technical brief addresses the following learning questions: What are the current processes and institutional structures for decision-making/priority setting in Indonesia? What are the key policy/regulatory priorities for the primary stakeholders? How can these be aligned to streamline HTA processes?

The Rational Use of Antimicrobials in Jordan. MTaPS developed a technical highlight on its efforts to develop localized protocols for rational use of antimicrobials, through collaboration with the Ministry of Health in Jordan. This technical highlight addresses the following learning question: What approaches are effective for building institutional and health facility capacity in rational use of antibiotics and IPC?

Sustaining Improvements in the Coordination and Governance of Pharmaceutical Systems in Jordan. MTaPS developed a technical brief on its efforts to support the institutionalization of framework agreements for public procurement of pharmaceuticals. This technical brief addresses the following learning question: What factors contribute to sustaining improvements in governance in pharmaceutical systems?

Strengthening MSC to Contain AMR in Kenya. MTaPS completed a technical brief summarizing program support to the Government of Kenya for strengthening MSC to address the rising threat of AMR in the country. This technical brief addresses the following learning questions: What are the factors enabling or hindering MSC on AMR at the national and MTaPS focus county levels? How can MSC be sustained?

Effective and Sustainable Governance Structures for Combating AMR at Health Facilities in Kenya. MTaPS developed a technical brief describing assistance to the Government of Kenya to establish IPC and AMR committees at the national, county, and health care facility levels as effective and sustainable governance structures for AMR containment. This technical brief addresses the following learning question: What are some of the incentives and enablers for the effective and sustainable functioning of IPC and MTC/AMS committees?

Key Factors of MSC in the Fight Against AMR in Mali: A National Analysis. MTaPS developed a technical brief in French on supporting the national MSC committee (GCMN-RAM) and its IPC and AMS TWGs through activities aimed at strengthening MSC for AMR containment. This technical brief addresses the following learning question: What are the key factors enabling or hindering MSC on AMR at the national level?

Strengthening MSC for Containing AMR in Nigeria. MTaPS developed a technical brief describing program support to the Government of Nigeria to strengthen governance and capacity in the country for effective MSC for AMR containment. This technical brief addresses the following learning question: What are the critical drivers for improving MSC on AMR?

Strengthening IPC in Nigeria. MTaPS developed a technical brief on efforts to strengthen governance and capacity for IPC at the national, state, and health facility levels in Nigeria. This technical brief addresses the following learning question: What are the minimum critical elements of IPC programs that are required to achieve successful and sustainable IPC improvements based on the experience working in the MTaPS-supported health care facilities?

Supporting Rwanda FDA to Strengthen Its Regulatory Services. MTaPS developed a technical brief summarizing program support to the Rwanda FDA in strengthening the quality of its regulatory services through implementation of a QMS. This technical brief addresses the following learning question: What is the effect of the QMS implementation on the quality of the Rwanda FDA's regulatory services?

Strengthening Pharmacovigilance in Rwanda. MTaPS completed a technical brief highlighting the program's support to Rwanda in introducing the web-based PVIMS for spontaneous reporting of AEs and AEFIs related to the Ebola vaccine and other vaccines and medicines. This technical brief addresses the following learning question: What are the key facilitators and barriers of routine use of PVIMS for spontaneous reporting?

Adherence to IPC Standards in MTaPS-Supported Health Facilities in Senegal. MTaPS developed a technical brief in French on its approach to improving IPC practices in Senegal through revitalization of nosocomial infection committees, which resulted in improved IPCAF scores at MTaPS-supported health facilities. This technical brief addresses the following learning question: What is the level of adherence to IPC standards in MTaPS-supported facilities?

Improving IPC in Tanzania. MTaPS developed a technical brief on its efforts to assess and strengthen IPC governance, build institutional capacity to manage IPC, make IPC-related information available for use in decision-making, and improve IPC practices and services. This technical brief addresses the following learning question: What factors contribute to an effective and sustainable national IPC program in Tanzania?

Introducing the WHO AWaRe Antibiotics Categorization in Tanzania. MTaPS developed a technical brief on efforts to introduce and implement the WHO-recommended AWaRe categorization of antibiotics to achieve more rational antibiotic use in Tanzania's health facilities. This technical brief addresses the following learning question: What factors facilitate adherence to AWaRe antibiotics categorization guidelines in health facilities?

During quarter I, MTaPS also developed seven technical briefs and highlights to document implementation knowledge:

Asia Bureau: Managing Conflicts of Interest in Public Pharmaceutical Committees. MTaPS completed a technical highlight on developing a manual for managing COI in public pharmaceutical agencies for stronger pharmaceutical management in LMICs.

Asia Bureau: Mapping Regulatory Workforce Competency for National Regulatory Authorities. MTaPS developed a technical brief on workforce competency mapping of NMRAs in Bangladesh, Nepal, and the Philippines to determine the regulatory capacity building needs of these NMRAs at institutional and individual levels.

Institutionalizing the eAMS in Bangladesh. MTaPS developed a technical highlight on development of a centralized, web-based eAMS to strengthen the process of deploying, operating, maintaining, upgrading, and disposing of assets cost effectively.

Improving COVID-19 Vaccination Rates in Low-Performing Districts in Côte d'Ivoire. MTaPS developed a technical brief on the use of microplanning as a tool to improve immunization coverage at the local level.

Improving Early Tuberculosis Detection in DRC. MTaPS developed a technical brief on the strengthening of the capacity of community health workers in Ituri province to improve TB screening and referral.

Implementing AMS at a Teaching Hospital in Nigeria. MTaPS developed a technical highlight on its approach to strengthen AMS at the facility level through improving governance structures and capacity building of health care workers, which resulted in stronger AMS practices at Enugu State University Teaching Hospital (ESUTH).

Strengthening Health Commodity PSCM in the Philippines. MTaPS developed a technical highlight on development and implementation of an eLMIS for addressing PSCM challenges in the Philippines.

COUNTRY SUMMARY REPORTS

The KM team supported development of country summary reports to Missions highlighting key achievements, results, recommendations, and future PSS considerations for the country. During quarter I, one country summary report was completed:

Ethiopia Country Summary Report. This report summarized MTaPS' efforts to strengthen Ethiopia's capacity for AMR containment through improved MSC, IPC, and AMS practices.

MISCELLANEOUS ACTIVITIES

MTaPS supported finalization of *Global Health Security Capacity Gains FY2023 End-of-Year Progress Reporting: Contribution from MTaPS (Mali)*.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Technical briefs and technical highlights	January–March 2024
Conference presentations	January–March 2024
Webinars	January–March 2024
Country summary reports	January–March 2024
Core and health area summary reports	January–March 2024
Country end-of-project presentations	January–March 2024
Country end-of-project events	January–March 2024
End-of-project event planning	January–March 2024

C. RESEARCH

QUARTER I PROGRESS

MTaPS continued several research studies this quarter. Under the Commodity Security and Logistics (CSL) portfolio, MTaPS continued the impact evaluation of a client, stock, and workflow management application on unmet family planning needs at the last mile in Luapula Province, Zambia. This quarter, the team completed endline data collection, which included stock assessments at 40 HFs and with 170 affiliated community-based distributors, as well as 1,377 client phone surveys. The team plans to complete data analysis and report the findings next quarter. Under Cross Bureau, the program also wrapped up postintervention data collection for an evaluation study focused on a package of social behavior change interventions aimed at motivating compliance with antimicrobial prescribing guidelines among providers in selected hospitals in Uganda. The team will be reporting the findings next quarter.

The Nepal team completed its pilot study of a multipronged SPARS to improve medicine management in public HFs. Under the CSL portfolio, MTaPS also completed a case study examining the status of disability inclusion in the health supply chain sector in Ethiopia. The study found that Ethiopia has a strong policy foundation for disability inclusive employment. However, there is a substantial gap with respect to implementation and enforcement, resulting in persons with disabilities facing challenges in accessing both education and employment opportunities in the health supply chain and broader labor market. The team is now using the findings of the case study and a previously completed landscape analysis to draft a manuscript for peer review.

With respect to publications, the Ethiopia team published a paper entitled "[Optimizing prophylactic antibiotic use among surgery patients in Ethiopian hospitals](#)" in the *Journal of Infection and Public Health*. The Uganda team also had two manuscripts published this quarter. One paper, entitled "Addressing gaps in AMR awareness in the public: an evidence-based policy brief to guide school curriculum review in Uganda," was published in November in *Frontiers in Public Health*. A second paper, entitled "Antimicrobial consumption surveillance in Uganda: results from an analysis of national import data for the human health sector, 2018–2021," was published in December in *Journal of Infection and Public Health*.

The program participated in six global meetings:

- 20th General Membership Meeting of the Reproductive Health Supplies Coalition held October 16–20, 2023, in Accra, Ghana. MTaPS presented "Improving access to maternal health medical products through optimization of product registration" as part of a panel.
- International Society of Pharmacovigilance, Bali, Indonesia, November 6–9, 2023. MTaPS presented a poster, "Strengthening pharmacovigilance to improve health products safety surveillance and reporting in Kenya."
- American Public Health Association Meeting held November 12–15, 2023, in Atlanta, Georgia. MTaPS presented "Continuous quality improvement of antimicrobial stewardship practices in health facilities in Cameroon: lessons learned" as an oral presentation.
- Global Health Supply Chain Summit held November 14–16, 2023, in Nairobi, Kenya. The program gave two oral presentations:

- “Building community health workers’ capacity for service provision and stock management at the last mile: development and implementation of a digital tool”
- “Making the health supply chain workforce inclusive for persons with disabilities”

The program also presented six posters:

- “Leveraging civil society to improve the resilience of supply chain for essential medical products”
 - “Making the health supply chain workforce inclusive for persons with disabilities” (also given as an oral presentation as noted above)
 - “Subnational procurement—does it ensure availability as well as quality and affordability of medicines?”
 - “Unlocking pharmaceutical system potential: introducing PSS Insight v2.0 for data-driven decision making”
 - “Situational analysis of family planning services availability at the last mile in Luapula Province, Zambia”
 - “Pharmaceutical system strengthening for self-reliant health supply chains”
- 2023 Global Digital Health Forum held December 4–6, 2023, in Washington, DC. MTaPS presented two posters:
 - “Building community health workers’ capacity for service provision and stock management at the last mile: a digital tool deployment”
 - “Flexible digitalization of regulatory authorities”
 - 6th Biennial SCOMRA held December 5–7, 2023, in Cairo, Egypt. MTaPS presented three posters:
 - “The critical need to prioritize registration of maternal child health medicines”
 - “Flexible digitalization of national regulatory authority functions”
 - “Sustainable local manufacturing and resilient health supply chains: the critical role of strong regulatory systems”

This quarter, MTaPS also had 2 of its 12 submitted abstracts accepted for oral presentation at the 3rd International Conference on Public Health in Africa, which was held November 27–30, 2023, in Lusaka, Zambia. Unfortunately, the MTaPS team was unable to attend. The abstracts were as follows:

- “Improvement of HAI surveillance system in Tanzania”
- “Capacity building of national regulatory authority towards WHO Maturity Level 3 (vaccine producing) authorization oversight and regulation”

The abstract entitled “Addressing conflicts of interest in pharmaceutical systems in low- and middle-income countries: from gap analysis to prevention and management” was accepted as a presentation at the Workshop on Corruption and Conflicts of Interest in Healthcare slated for January 12–14, 2024, in London. The program was also notified of acceptance of seven of its nine submitted abstracts at the People that Deliver Global Indaba scheduled for March 6–8, 2024 in Bangkok, Thailand:

- “Including persons with disabilities in the health supply chain workforce”

- “Improving DRC’s supply chain management by strengthening local supply chain organizations to promote linkage between public and private sectors”
- “Strengthening community health workers’ capacity for stock management and service provision at the last mile”
- “Innovative approaches ensuring a systems approach to workforce when undertaking procurement and supply chain management strategic change”
- “Enhancing pharmaceutical systems through remote capacity strengthening: results and sustainability”
- « Un programme virtuel pour équiper les institutions locales afin de renforcer les systèmes pharmaceutiques »
- “What can private sector teach us about professionalization of the procurement and supply chain management workforce—a South East Asian perspective”

Additionally, MTaPS submitted eight abstracts to two global meetings this quarter and is awaiting outcome notification.

- 14th Priorities 2024 Conference scheduled for May 8–10, 2024, in Bangkok, Thailand
 - “Developing methodology guidelines for health technology assessment in the context of medical devices in the Philippines”
- Global Health Security Conference scheduled for June 18–21, 2024, in Sydney, Australia
 - “Improvement of HAI surveillance system in Tanzania”
 - “Improving infection prevention and control and hand hygiene using a continuous quality improvement approach at six hospitals in Uganda”
 - “Antimicrobial consumption surveillance in Uganda: analysis of national import data for the human health sector, 2018–2021”
 - “Building functional multisectoral coordination to fight antimicrobial resistance: experiences from 13 countries”
 - “Development and evaluation of a continuous quality improvement programme for antimicrobial stewardship in six hospitals in Uganda”
 - “Optimizing prophylactic antibiotic use among surgery patients in Ethiopian hospitals”
 - “Pandemic preparedness and the elephant in the room: combatting AMR in resource-constrained settings”

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Prepare presentations for conferences occurring in quarter 2	March 2024

9. ANNEXES

ANNEX I. MTAPS INDICATORS

Annex Table I. MTaPS performance indicator tracking table

N/A is placed when activities are out of scope for the portfolio in the reporting year.

Code	Performance indicator	Reporting frequency	Baseline value	PY2 result	PY3 result	PY4 result	PY5 result	PY6 Q1 result	PY6 Q2 result	PY6 Q3 result	PY6 Q4 result	PY6 cumulative result
GH-IO 1	Has the country developed policies for prescription of access, watch, or reserve class of antibiotics according to AWARe categorization (yes/no)?	Annually	0/12	4/12	5/12	5/12	10/10					
	<i>Bangladesh</i>		No	Yes	Yes	Yes	Yes					
	<i>Burkina Faso</i>		No	No	Yes	No	Yes					
	<i>Cameroon</i>		No	No	No	No	Yes					
	<i>Côte d'Ivoire</i>		No	No	No	No	N/A					
	<i>DRC</i>		No	Yes	Yes	Yes	Yes					
	<i>Ethiopia</i>		No	No	No	Yes	Yes					
	<i>Kenya</i>		No	No	No	No	Yes					
	<i>Mali</i>		No	No	No	No	N/A					
	<i>Mozambique</i>		No	No	No	No	Yes					
	<i>Nigeria</i>		No	No	No	No	Yes					
	<i>Senegal</i>		No	Yes	Yes	Yes	Yes					
<i>Tanzania</i>	No	Yes	Yes	Yes	Yes							
GH-IO 2	Has the country implemented WHO AWARe categories (yes/no)?	Annually	1/12	3/12	8/12	7/12	10/12					
	<i>Bangladesh</i>		Yes	Yes	Yes	Yes	Yes					
	<i>Burkina Faso</i>		No	No	Yes	Yes	Yes					

	Cameroon		No	No	No	No	Yes		
	Côte d'Ivoire		No	No	No	No	Yes		
	DRC		No	Yes	Yes	Yes	Yes		
	Ethiopia		No	No	Yes	Yes	Yes		
	Kenya		No	No	Yes	Yes	Yes		
	Mali		No	No	Yes	No	N/A		
	Mozambique		No	No	No	No	Yes		
	Nigeria		No	No	No	No	No		
	Senegal		No	No	Yes	Yes	Yes		
	Tanzania		No	Yes	Yes	Yes	Yes		
GH-IO 5	% of MTaPS-supported facilities with compliance with at least 60% prescribed antibiotics coming from WHO's AWaRe access category	Baseline/ endline	71%	N/A	49%	55%	67% (35/32)		
	Cote d'Ivoire		0%	N/A	N/A	100%	N/A		
	DRC		28%	N/A	N/A	0%	25% (3/12)		
	Jordan		0%	N/A	N/A	N/A	N/A		
	Kenya		80%	N/A	N/A	N/A	92% (22/24)		
	Mali		80%	N/A	49%	56%	62% (10/16)		
	Senegal		0%	N/A	N/A	0%	N/A		
	Tanzania		100%	N/A	N/A	N/A	N/A		
	Uganda		100%	N/A	N/A	100%	N/A		
IO.1	% of median international price paid for a set of tracer medicines that was part of the last regular MOH procurement	Baseline/ endline	179%	N/A	N/A	N/A	N/A		
IO.2	Mean % availability across a set of tracer medicines	Annually	78%	75%	76%	78%	50%	N/A	N/A
	Nepal						(50/100)	N/A	N/A

IO.3	% of medicines on the EML that have at least one registered product available	Annually					29% (434/1,477)		
	<i>DRC MNCH</i>		0%	N/A	N/A	17%	79% (30/38)		
	<i>Nepal</i>		84%	N/A	73%	72%	75% (318/426)	N/A	N/A
	<i>Rwanda</i>		49%	N/A	N/A	N/A	15% (86/1,013)		
IO.4	Has the country's regulatory system increased its score since the last WHO global regulatory benchmarking assessment in at least one regulatory function (yes/no)?	Annually	0	N/A	N/A	N/A	Yes		
	<i>Nepal</i>		Yes	Yes	Yes	N/A	Yes		
IO.5/GH-IO-4	% of surveyed patients who can correctly state instructions dosage of antimicrobial prescriptions	Baseline/ endline	76%	N/A	N/A	N/A	39% (1,324/3,376)		
	<i>Nepal</i>		76%	N/A	N/A	N/A	37% (1,166/3,136)	N/A	N/A
	<i>Mali</i>		32%	N/A	55%	54%	66% (158/240)		
IO.6	Optimal level of medicines prescribing indicators (composite indicator)	Annually	0.38	N/A	0.5	N/A	0.25	N/A	N/A
	<i>Nepal</i>								
MNCH 17	# of countries participating in the dissemination of the regulation guidelines for medical devices	Annually	0	0	0	N/A	N/A		
MNCH 18	# of MNCH medical devices included in the guidelines	Annually	N/A	N/A	0	N/A	N/A		
MNCH 19 ⁶	# of stakeholders from regulatory authorities and manufacturers of oxygen participating in the dissemination and	Annually	0	0	0	N/A	N/A		

⁶ The activity being reported under MNCH 19 has changed scope and to measure the changed activity, MNCH 27 has been added.

	adoption of the oxygen regulatory framework								
MNCH 4	# of oxygen manufacturers committed to addressing weaknesses identified	Annually	0	0	0	N/A	N/A		
MNCH 6	# of countries using the RMNCH forecasting supplement	Annually	0	N/A	5	8	N/A		
MNCH 9	# of best practices identified and documented on elements of pharmaceutical management in social accountability MNCH interventions from the literature	Annually	0	3	N/A	N/A	N/A		
MNCH 10	# of MTaPS-supported NMRA's implementing improved registration practices relevant for MNCH medical products	Semiannually	0	1	N/A	1	0		
MNCH 11	# of countries supported to develop and implement action plans for regional harmonization efforts relevant for MNCH medical products	Semiannually	N/A	0	N/A	N/A	0		
MNCH 12	# of quality-assured MNCH products registered in selected country	Semiannually	0	N/A	N/A	123	N/A		
MNCH 13	# of countries supported to implement decentralized procurement systems	Semiannually	0	1	N/A	1	N/A		
MNCH 21	# of quantification guidance documents developed	Annually	0	0	0	5	2		
MNCH 22	# of countries in selected region implementing	Semiannually	0	N/A	N/A	N/A	N/A		

	regulation of medical devices								
MNCH 23	# of countries participating in the joint assessment of MNCH medical devices	Annually	N/A	N/A	N/A	N/A	0		
MNCH 24	# of countries participating in the meetings to disseminate the call-to-action paper to improve use of amoxicillin and gentamicin	Annually	N/A	N/A	N/A	N/A	23		
MNCH 25	# of countries receiving MTaPS support to include non-malaria commodities in their GF proposals	Annually	N/A	N/A	N/A	N/A	6		
MNCH 26	# of countries participating in the dissemination of the oxygen quality assurance (QA) resource document	Annually	N/A	N/A	N/A	N/A	42		
MNCH 27	Number of stakeholders involved in validation of oxygen QA resource document	Annually	0	N/A	N/A	N/A	36		
MT I.I.I	# of entities that have clarified roles and responsibilities in pharmaceutical systems and made information publicly available with MTaPS support	Annually	0	3	11	6	2		
	Bangladesh		0	2	1	2	N/A		
	DRC		N/A	N/A	N/A	N/A	N/A		
	Indonesia		0	N/A	2	N/A	N/A		
	Jordan		0	0	0	3	N/A		
	Nepal		0	0	0	N/A	1	3	3
	Rwanda		0	1	4	1	1		

	IGAD		0	0	4	N/A	N/A		
MT 1.1.2	# of MTaPS-supported entities that monitor key elements of pharmaceutical management operations and make the information publicly available	Annually	0	0	29	17	17		
	DRC MNCH		0	0	29	17	17		
MT 1.1.3	% of MTaPS-supported decision-making entities that have publicly available guidelines for key elements of pharmaceutical management operations	Annually	0	N/A	100% (2/2)	0% (0/1)	100% (1/1)		
	IGAD		0	N/A	100% (2/2)	N/A	N/A		
	Mali		0	N/A	N/A	0% (0/1)	100% (1/1)		
MT 1.2.1	# of pharmaceutical sector-related policy, legislation, regulation, or operational documents developed or updated with technical assistance from MTaPS	Annually	0	30	28	20	80		
	Asia Bureau		0	0	1	4	1		
	Cross Bureau		0	N/A	N/A	1	1		
	Bangladesh		0	2	2	5	1		
	Burkina Faso PV		0	1	0	N/A	N/A		
	Global MNCH		0	1	0	N/A	N/A		
	Indonesia		0	N/A	0	N/A	1		
	Jordan		0	0	0	0	11		
	Mali MNCH		0	N/A	N/A	1	N/A		
	Mozambique		0	1	2	N/A	N/A		
	Nepal		0	N/A	3	6	65	22	22
	Philippines		0	0	3	1	Data not available		
	Rwanda		0	26	17	0	N/A		
Tanzania PEPFAR	0	N/A	2	2	N/A				

PP 1.1.1	# of policies and plans developed, enhanced, or implemented to improve service delivery governance and regulation because of MTaPS support	Annually	0	2	3	1	Data not available				
PP 1.2.1	# of health workers who received in-service training using nontraditional platforms on PSS, PSCM, or PV with MTaPS support	Quarterly	0	0	N/A	1,872	1,863	548			
MT 1.2.2	# of pharmaceutical regulatory enforcement mechanisms established or strengthened with MTaPS support	Semiannually	0	0	5	8	24				
	<i>Burkina Faso</i>		0	N/A	N/A	N/A	0				
	<i>Global MNCH</i>		0	N/A	0	N/A	1				
	<i>Mozambique</i>		0	0	2	N/A	N/A				
	<i>Rwanda</i>		0	0	2	8	23				
	<i>Tanzania PEPFAR</i>		0	N/A	1	N/A	N/A				
MT 1.2.3	% of established pharmaceutical regulatory enforcement mechanisms that are functional	Semiannually	50%	42% (11/26)	88% (15/17)	75% (3/4)	100% (1/1)				
	<i>Bangladesh</i>		50%	100% (2/2)	100% (8/8)	100% (2/2)	100% (1/1)				
	<i>Mozambique</i>		0%	22% (2/9)	67% (2/3)	N/A	N/A				
	<i>Rwanda</i>		0%	83% (5/6)	83% (5/6)	75% (6/8)	N/A				
MT 1.3.1	# of platforms for citizen and consumer engagement in the pharmaceutical sector established or strengthened with MTaPS support	Annually	0	0	1	1	N/A				
	<i>DRC MNCH</i>		0	0	1	1	1				
	<i>Jordan</i>		0	0	0	0	N/A				

PP 1.3.1	% of USG-supported facilities using MTaPS-supported eLMIS	Quarterly	0	N/A	N/A	Data not reported	28% (39/68)	Data not available ⁷						
MT 1.3.2	# of civil society organizations or media groups that have disseminated information on pharmaceutical sector-monitoring activities or conducted advocacy for equity in access to medical products with MTaPS support	Annually	0	0	0	0	N/A							
	<i>Jordan</i>		0	0	0	0	N/A							
MT 2.1.2	# of MTaPS-supported health professional training curricula developed or revised to address pharmaceutical management topics	Annually	0	5	2	7	5							
	<i>Asia Bureau</i>		0	N/A	1	2	N/A							
	<i>Bangladesh</i>		0	4	0	1	N/A							
	<i>IGAD</i>		0	1	1	N/A	N/A							
	<i>Jordan</i>		0	N/A	N/A	4	2							
	<i>Mali MNCH</i>		0	N/A	N/A	N/A	3							
MT 2.2.2	# of persons trained in pharmaceutical management with MTaPS support	Quarterly	0	1,827	12,480	9,862	8,815	3,623						
	<i>Asia Bureau⁸</i>		<i>Female</i>	0										
			<i>Male</i>	0										
			<i>Unknown</i>	1,064										
	<i>Bangladesh</i>		Total	1,064										
			<i>Female</i>	7										
			<i>Male</i>	47										
			<i>Unknown</i>	0										
	<i>Burkina Faso</i>		Total	54										
			<i>Female</i>	N/A										
		0	N/A	N/A	N/A	32	<i>Female</i>	N/A	<i>Female</i>	<i>Female</i>	<i>Female</i>			

⁷ Indicator data are collected through government sources that were not available at the time of data collection.

⁸ Asia Bureau PY5 e-Learning course which became live in PY6Q1.

								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Cross Bureau	0	N/A	N/A	124	2,895	Female	0	Female	Female	Female			
						Male	0	Male	Male	Male			
						Unknown	1,713	Unknown	Unknown	Unknown			
						Total	1,713	Total	Total	Total			
DRC MNCH	0	N/A	373	192	334	Female	N/A	Female	Female	Female			
						Male		Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown			
						Total		Total	Total	Total			
DRC Supply Chain	N/A	N/A	N/A	0	223	Female	N/A	Female	Female	Female			
						Male		Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown			
						Total		Total	Total	Total			
IGAD	0	N/A	843	23	N/A	Female	N/A	Female	Female	Female			
						Male		Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown			
						Total		Total	Total	Total			
Indonesia	0	N/A	0	251	75	Female	43	Female	Female	Female			
						Male	20	Male	Male	Male			
						Unknown	0	Unknown	Unknown	Unknown			
						Total	63	Total	Total	Total			
Jordan	0	N/A	N/A	50	677	Female	130	Female	Female	Female			
						Male	110	Male	Male	Male			
						Unknown	0	Unknown	Unknown	Unknown			
						Total	240	Total	Total	Total			
Mali MNCH	0	N/A	N/A	8	37	Female	N/A	Female	Female	Female			
						Male		Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown			
						Total		Total	Total	Total			
Mozambique	0	105	21	125	N/A	Female	N/A	Female	Female	Female			
						Male		Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown			

								Total		Total		Total		Total		
	Nepal		0	N/A	38	121	733	Female	196						977	
							Male	781								
							Unknown	0								
							Total	977								
	Philippines		0	N/A	7,615	5,191	1,048	Female	304	Female		Female		Female		
								Male	133	Male		Male		Male		
								Unknown	0	Unknown		Unknown		Unknown		
								Total	437	Total		Total		Total		
	Rwanda ⁹		0	44	603	246	616	Female	22	Female		Female		Female		
								Male	30	Male		Male		Male		
								Unknown	0	Unknown		Unknown		Unknown		
								Total	52	Total		Total		Total		
	Rwanda PEPFAR		0	N/A	N/A	78	N/A	Female	N/A	Female		Female		Female		
							Male	Male			Male		Male		Male	
							Unknown	Unknown			Unknown		Unknown		Unknown	
							Total	Total			Total		Total		Total	
	Tanzania PEPFAR		N/A	N/A	30	27	N/A	Female	0	Female		Female		Female		
								Male	0	Male		Male		Male		
								Unknown	0	Unknown		Unknown		Unknown		
								Total	0	Total		Total		Total		
MT 2.2.3	# of in-person or e-Learning courses developed with MTaPS assistance	Annually	0	1	11	11	1									
	Asia Bureau		0	N/A	3	2	1									
	Bangladesh		0	0	0	N/A	N/A									
	Cross Bureau		0	1	1	2	N/A									
	IGAD		N/A	N/A	0	N/A	N/A									
	Mozambique		0	0	1	1	N/A									
	Nepal		N/A	N/A	N/A	N/A	N/A	2						2		
	Philippines		0	0	4	6	Data not available ¹⁰									
	Rwanda		0	0	2	N/A	N/A									

⁹ Rwanda PY6QI field support activities are a continuation of the PY5 work plan.

¹⁰ Indicator data are collected through government sources that were not available at the time of data collection.

MT 2.2.4	# of people successfully completing MTaPS-developed e-Learning courses	Quarterly	0	65	6,917	4,227	5,961	2,753							
	Asia Bureau		0	0	52	0	8		N/A						
	Bangladesh FS		0	0	0	0	0	2,012	Female	64	Female	Female	Female	Female	
									Male	395	Male	Male	Male		
									Unknown	5	Unknown	Unknown	Unknown		
									Total	464	Total	Total	Total		
	Bangladesh GHSA		0	N/A	N/A	N/A	N/A	56	Female	173	Female	Female	Female	Female	
									Male	401	Male	Male	Male		
									Unknown	2	Unknown	Unknown	Unknown		
									Total	576	Total	Total	Total		
	Côte d'Ivoire		0	N/A	N/A	N/A	N/A	N/A	Female	0	Female	Female	Female	Female	
									Male	0	Male	Male	Male		
									Unknown	0	Unknown	Unknown	Unknown		
									Total	0	Total	Total	Total		
	Cross Bureau		0	6	8	208	208	3,123	Female	0	Female	Female	Female	Female	
									Male	0	Male	Male	Male		
									Unknown	1,713	Unknown	Unknown	Unknown		
									Total	1,713	Total	Total	Total		
	Mozambique		0	65	0	0	0	N/A	Female		Female	Female	Female	Female	
									Male		Male	Male	Male		
									Unknown		Unknown	Unknown	Unknown		
									Total		Total	Total	Total		
	Philippines		0	0	6,857	3,892	3,892	762	Female		Female	Female	Female	Female	
									Male		Male	Male	Male		
									Unknown		Unknown	Unknown	Unknown		
									Total		Total	Total	Total		
	Rwanda		0	0	0	127	127	N/A	Female		Female	Female	Female	Female	
									Male		Male	Male	Male		
Unknown									Unknown	Unknown	Unknown				

								Total		Total	Total	Total
MT 2.4.1	# of days reduced for product registration in countries with MTaPS-supported NMRAs	Annually	0	0	180	0	N/A					
	Mali MNCH		0	N/A	N/A	0	N/A					
	Rwanda		0	N/A	N/A	N/A	240					
MT 2.4.2	# of premises inspected by MTaPS-supported NMRAs	Annually	0	N/A	N/A	3,751	N/A			N/A		N/A
	Nepal		0	N/A	N/A	3,751	N/A			N/A		N/A
MT 2.4.3	# of regional harmonization initiatives with participation by MTaPS-supported NMRAs	Annually	0	0	3	10	2					
	Asia Bureau		0	N/A	1	10	1					
	Cross Bureau		0	N/A	N/A	N/A	1					
	IGAD		0	N/A	2	N/A	N/A					
	Mozambique		0	0	0	N/A	N/A					
MT 2.4.4	# of countries that have conducted an assessment at any level of the regulatory system	Annually	2	1	2	1	1					
	Nepal		Yes	Yes	Yes	Yes	Yes			N/A		N/A
	Rwanda		Yes	N/A	Yes	No	No					
MT 2.4.5	# of medicines with current valid registration	Annually	0	N/A	N/A	60	482					
	Mali MNCH		0	N/A	N/A	60	N/A					
	Rwanda		0	N/A	N/A	N/A	482					
MT 3.3.1	Has the country used PSS metrics to assess its pharmaceutical system?	Annually	No	N/A	N/A	No	No					
	Cross Bureau		No	N/A	N/A	No	No					
NP 1	% of USG-assisted organizations with improved performance	Annually	0	0%	0%	0% (0/1)	100% (1/1)			N/A		N/A
NP 2	# of wholesalers inspected according to the new good distribution practice inspection guidelines	Annually	0	0	0	22	8			2		2

NP 3	# of public- and private-sector pharmacies inspected according to the new good pharmacy practice inspection guidelines	Annually	0	0	12	N/A	N/A	10	10
NP 4	# of innovations supported through USG assistance	Annually	0	0	2	4	5	2	2
NP 5	% of surveyed medicines labeled in compliance with labeling requirements	Annually	8.70%	N/A	8.70%	0%	60% (60/100)	N/A	N/A
NP 6	% of private-sector pharmacies surveyed dispensing prescription medicines without prescription	Annually	25%	N/A	25%	N/A	N/A	N/A	N/A
NP 8	# of monitoring visits in which the Government of Nepal (GON) participates	Annually	0	N/A	2	6	17	9	9
PP 1.5.1	# of TB and FP commodities for which a quantification process is completed with MTaPS support	Annually	0	0	0	6	14		
PP 1.5.2	# of TB and FP commodities procured by the DOH through FAs, pooled procurement, or other innovative procurement mechanisms with support from MTaPS	Annually	0	0	0	0	Data not yet available ¹¹		
PP 2.2.1	# of TB and FP products registered in the Philippines with MTaPS support	Annually	0	0	0	9	Data not yet available ¹¹	-	
PP 3.2	# of synergized approaches for supply chain management, human resources for health, and engagements with private sector and local government units	Annually	0	2	5	1	Data not yet available ¹¹		

¹¹ Indicator data are collected through government sources that were not available at the time of data collection.

PP 3.3	% of MTaPS-supported entities carrying out supply chain management functions without external TA	Annually	0	0	33% (4/12)	25% (2/8)	Data not yet available ¹¹												
MT 3.1.1	# and % of MTaPS-supported HFs that have newly implemented or improved PMIS to document-specific components of the pharmaceutical system for analysis and reporting with MTaPS support	Semiannually	90%	92% (4,303/4,690)	99% (2,006/2,016)	100% (20/20)	N/A												
	Bangladesh		90%	92% (4,293/4,680)	100% (2,006/2,006)	N/A	N/A												
	Rwanda Field Support		0%	100% (10/10)	0% (0/10)	N/A	N/A												
	Rwanda PEPFAR		0%	N/A	N/A	100% (20/20)	N/A												
MT 3.1.2	# and % of MTaPS-supported HFs using interoperable PMIS tools	Semiannually	61% (61/100)	88% (3,884/4,410)	85% (6,434/7,565)	72% (8,957/12,367)	70% (10,253/14,537) /5,963)												
	Bangladesh		61% (61/100)	88% (3,875/4,396)	77% (4,734/6,173)	72% (4,418/6,106)	70% (10,243/14,527) /5,958)												
	Mozambique		0%	64% (9/14)	85% (1412/1652)	64% (9/14)	100% (5/5)												
	Rwanda PEPFAR		0%	N/A	N/A	100% (20/20)	N/A												
MT 3.1.3	# of countries that have a functional early warning system linking clinical and stock data	Annually	0	0	2	1	1												
	Bangladesh		0	Yes	Yes	Yes	Yes												
	Mozambique		0	No	No	No	N/A												
MT 3.2.1	# and % of MTaPS-supported HFs that complete and submit an LMIS report on time for the most recent reporting period	Quarterly	54.11% (158/292)	92% (4,293/4,680)	76% (4,588/6,003)	72% (18,362/25,490)	76% (69,514/91,009)	N/A											
	Bangladesh		74.30% (84/115)	92% (4,293/4,680)	77% (4,488/5,826)	74% (4,830/6,500)	77% (5,002/6,501)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	Hospitals						
			Other					Other		Other	Other	Other	Other						
			Total					Total		Total	Total	Total	Total						
							Hospitals	N/A	Hospitals	Hospitals	Hospitals	Hospitals							

	DRC MNCH ¹²		42%	Data not reported	56%	74%	78%	Health centers		Health centers	Health centers		Health centers	
			(74/177)		(100/177)	(132/177)	(1,123/1,441)	Other		Other	Other	Other		
								Total		Total	Total	Total		
MT 3.3.2	# of PSS technical documents authored by MTaPS	Semiannually	0	14	39	56	48							
	Asia Bureau		0	N/A	N/A	0	2							
	Cross Bureau		10	13	10	11	16							
	CSL		0	N/A	1	10	1							
	Global MNCH		0	1	1	9	10							
	Indonesia		0	N/A	0	7	8							
	Jordan		0	N/A	N/A	2	7							
	Mali MNCH		0	N/A	N/A	N/A	1							
	Mozambique		0	N/A	N/A	N/A	N/A							
	Rwanda		0	N/A	27	17	3							
MT 3.3.3	# of activities to engage with stakeholders to advance the PSS global learning agenda	Quarterly	0	4	12	64	67	29						
	Asia Bureau		0	N/A	N/A	1	7	0						
	Cross Bureau		0	11	12	31	34	17						
	Côte d'Ivoire		N/A	N/A	N/A	N/A	N/A	0						
	CSL		0	N/A	0	16	N/A	N/A						
	Indonesia		0	N/A	0	16	23	4						
	Kenya		N/A	N/A	N/A	N/A	N/A	4						
	Mali		N/A	N/A	N/A	N/A	N/A	2						
	Mozambique		0	N/A	N/A	N/A	0	0						
	Tanzania		N/A	N/A	N/A	N/A	N/A	2						
PP 3.1	# of joint success stories produced	Annually	0	2	3	2	8							
PP 3.4	# of gender assessments, analyses, studies, or research activities conducted by MTaPS on PSCM and PV	Annually	0	0	1	1	1							

¹² DRC MNCH PY6 activities have not yet begun.

DRC 6	% of MTaPS-supported HFs that used data to inform medicine use, patient safety, quality of pharmaceutical services, and/or pharmacy benefits	Semiannually	0	N/A	100%	100% (50/50)	N/A		
MNCH 13	# of countries supported to implement decentralized procurement systems	Semiannually	0	N/A	N/A	N/A	N/A		
MNCH 15	# of oxygen manufacturers committed to addressing weaknesses identified	Annually	N/A	N/A	0	N/A	N/A		
MT 4.1.2	# of new or revised medicine pricing policies developed with MTaPS' assistance	Annually	0	N/A	N/A	N/A	N/A		
	<i>DRC Supply Chain</i>		0	N/A	N/A	N/A	N/A		
	<i>Indonesia</i>		0	N/A	N/A	N/A	N/A		
MT 4.2.1	# of pharmacy benefits programs introduced or improved in health sector with MTaPS support	Annually	0	1	N/A	N/A	N/A		
	<i>Bangladesh</i>		0	1	N/A	N/A	N/A		
MT 4.2.2	Has the country established a national-level, multistakeholder platform for evidence-based pharmacy benefits program decision making (yes/no)?	Annually	0	N/A	0	N/A	N/A		
	<i>Indonesia</i>		0	N/A	0	N/A	N/A		
MT 4.2.3	# of strategic plans developed or updated to address pharmaceutical costs and financing with MTaPS support	Semiannually	0	2	0	2	3		
	<i>Asia Bureau</i>		0	N/A	N/A	N/A	0		
	<i>Bangladesh</i>		0	2	0	0	N/A		
	<i>Indonesia</i>		N/A	N/A	N/A	2	3		

MT 4.3.1	Has the country increased domestic funding budgeted for or spent on high-priority diseases or conditions (yes/no)?	Annually	N/A	N/A	No	Data not reported	Yes				
	<i>Indonesia</i>		N/A	N/A	No		Yes				
MT 4.3.2	Has the country reviewed public-sector pharmaceutical financing in the last fiscal year (yes/no)?	Annually	N/A	N/A	Yes	Yes	Yes				
	<i>Indonesia</i>		N/A	N/A	Yes	Yes	Yes				
MT 4.3.3	Does the country have a system(s) to track pharmaceutical expenditures (yes/no)?	Annually	N/A	N/A	N/A	No	Yes				
	<i>Indonesia</i>		N/A	N/A	N/A	No	Yes				
MT 4.3.4	Has the country reduced the value of product losses (due to expired medicines, damage, or theft) per value of commodities received (yes/no)?	Annually	N/A	N/A	0	N/A	N/A				
	<i>Indonesia</i>		N/A	N/A	0	N/A	N/A		N/A		
PP 1.4.1	# of private-sector outlets providing FP or TB commodities through a referral and reimbursement scheme	Annually	N/A	N/A	5	0	N/A			N/A	
MT 5.1.1	% of SDPs with stockout of FP, TB, and HIV-AIDS tracer commodities	Quarterly	40.50%	45% (5,896/13,114)	31% (5,661/18,258)	37% (15,398/40,738)	26% (7511/28717)	Data not available			
	<i>Philippines¹³</i>		40.50%	45% (5,896/13,114)	31% (5,661/18,258)	37% (15,398/40,738)	26% (7511/28,717)	Data not available			
	<i>First-line TB meds (4 fixed-dose combinations)</i>		40.50%	52% (929/1,784)	21% (358/1,705)	23% (1,085/4,703)	17% (525/3,024)	Data not available			
	<i>TB pediatric meds (4 fixed-dose combinations)</i>		90.60%	97% (506/519)	49% (694/1,418)	53% (1,966/3,706)	19% (896/4,683)	Data not available			
	<i>TB preventive treatment (for children)</i>		63.80%	77% (582/753)	81% (967/1,189)	86% (1,663/1,940)	N/A	Data not available			
	<i>TB second-line drug (levofloxacin 500 mg)</i>		N/A	64% (127/199)	10% (18/186)	3.50% (7/198)	17% (84/504)	Data not available			

¹³ Indicator data are collected through government sources that were not available at the time of data collection.

	TB second-line drug (moxifloxacin 400 mg)		N/A	50% (100/199)	7% (12/168)	N/A	N/A	Data not available			
	TB second-line drug (linezolid 600 mg)		N/A	47% (95/199)	5% (9/184)	9% (17/198)	21% (105/504)	Data not available			
	TB second-line drug (bedaquiline)		N/A	47% (95/199)	8% (14/183)	4.50% (9/198)	19% (95/504)	Data not available			
	GeneXpert cartridges		N/A	3% (13/395)	14% (46/338)	30% (367/1,207)	69% (932/1,345)	Data not available			
	FP injectable		30.20%	27% (466/1,703)	22% (500/2,237)	28% (1,420/5,017)	25% (813/3,299)	Data not available			
	FP implant		52.70%	69% (796/1,150)	42% (784/1,879)	50% (2,022/4,208)	40% (916/2,285)	Data not available			
	FP oral COC		25.60%	24% (418/1,716)	14% (318/2,273)	34% (1,734/5,062)	28% (941/3,319)	Data not available			
	FP oral POP		69.30%	52% (715/1,374)	24% (540/2,229)	22% (1,101/5,053)	18% (607/3,313)	Data not available			
	IUD		36.70%	37% (466/1,264)	41% (836/2,022)	43% (1,892/4,369)	39% (1,006/2,593)	Data not available			
	Male condom		38.90%	36% (592/1,661)	25% (568/2,249)	20% (1,036/5,059)	18% (591/3,344)	Data not available			
MT 5.1.1 (FP)	Stockout rates of tracer medicines in MTaPS-supported HFs (FP)	Semiannually	0%	N/A	N/A	.00116% (70/60,363)	0.36% (202/56,464)				
	Bangladesh										
MT 5.1.1 (MNCH)	Stockout rates of tracer medicines in MTaPS-supported HFs (MNCH)	Semiannually	0%	N/A	N/A	N/A	31% (29,836/97,060)				
	Bangladesh										
MT 5.1.1 (TB)	Stockout rates of tracer medicines in MTaPS-supported HFs (TB)	Semiannually	78%	N/A	N/A	N/A	10% (145/1,408)				
	Bangladesh										
MT 5.1.2	% of tracer products stocked according to plan		0%	N/A	28% (52/186)	28% (25/88)	46% (27/59)				
	Bangladesh	Semiannually	0%	N/A	0% (0/7)	50% (3/6)	N/A				
					92% (12/13)	50% (3/6)					
					14% (1/7)	0					
					0% (0/7)	0					
	DRC MNCH	Semiannually	0%	N/A	37% (14/38)	56% (11/19)	46% (27/59)	Stocked according to plan			
42% (16/38)					26% (5/19)		Overstocked				
18% (7/38)					16% (3/19)		Understocked				

					53% (2/38)	0% (0/19)		Stocked out											
MT 5.1.2 (FP)	% of tracer products stocked according to plan (FP)	Semiannually	0%	N/A	N/A	50% (12/14)	16% (2/12)												
	Bangladesh		0%	N/A	N/A	50% (12/14)													
MT 5.1.2 (TB)	% of tracer products stocked according to plan (TB)	Semiannually	0%	N/A	N/A	N/A	N/A												
	Bangladesh		0%	N/A	N/A	N/A	N/A												
MT 5.1.3	% of initially MTaPS-supported supply chain functions carried out by national entities that are done without external TA	Semiannually	0%	Data not reported	100% (3/3)	100% (3/3)	100% (3/3)												
	Bangladesh		0%	Data not reported	100% (3/3)	100% (3/3)													
MT 5.2.1	% of MTaPS-supported HFs which have developed, adopted, or implemented pharmaceutical service standards	Semiannually	0%	0%	0% (0/100)	0%	N/A												
	Rwanda		0%	0%	0% (0/100)	0%	N/A												
MT 5.2.2	% of MTaPS-supported HFs promoting patient-centered pharmaceutical services	Semiannually	0%	N/A	N/A	100% (20/20)	N/A												
	Rwanda		0%	N/A	N/A	100% (20/20)	N/A												
MT 5.2.3	% of MTaPS-supported HFs implementing CQI approaches to improve medicine use	Semiannually	0%	N/A	N/A	100% (20/20)	100% (20/20)												
	Rwanda		0%	N/A	N/A	100% (20/20)	100% (02/20)												
			Hospitals																
			Health centers																
			Pharmacies																
Other																			
Total																			
MT 5.3.1	% of MTaPS-supported HFs that have implemented medicine safety activities	Quarterly	31% (31/100)	3% (3/110)	44% (46/105)	67% (414/615)	74% (252/340)	83% (75/90)											
	Bangladesh		31% (31/100)	3% (3/100)	56% (28/50)	58% (38/65)	77% (50/65)		Pharmacies	75% (49/65)	Pharmacies	Pharmacies	Pharmacies	Pharmacies					
								Total	75% (49/65)	Total	Total	Total	Total						

	Burkina Faso PV		0%	N/A	N/A	N/A	N/A	Health centers	N/A	Health centers	Health centers	Health centers		
								Total		Total	Total	Total		
	IGAD		0%	Data not reported	24% (10/41)	6.50% (8/123)	N/A	N/A	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
									Health centers		Health centers	Health centers	Health centers	
									Pharmacies		Pharmacies	Pharmacies	Pharmacies	
									Total		Total	Total	Total	
	Mozambique		0%	N/A	100%	100% (14/14)	100% (5/5)	N/A	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
									Health centers		Health centers	Health centers	Health centers	
									Total		Total	Total	Total	
	Rwanda ¹⁴		0% (0/10)	0% (0/10)	50% (5/10)	N/A	100% (20/20)	N/A	Hospitals	100% (10/10)	Hospitals	Hospitals	Hospitals	
									Health centers	100% (10/10)	Health centers	Health centers	Health centers	
									Total	100% (20/20)	Total	Total	Total	
	Rwanda PEPFAR		0%	N/A	N/A	100% (20/20)	N/A	N/A	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
									Health centers		Health centers	Health centers	Health centers	
									Total		Total	Total	Total	
	MT 5.3.2	% of ADEs reported to the NMRA and reviewed by the NMRA	Semiannually		22% (95/440)	53% (7,419/13,881)	16% (3,801/22,758)	43% (1,311/3,000)						
		Bangladesh		68% (68/100)	22%	77% (449/586)	90% (852/945)	80% (617/774)						
		Burkina Faso		0	N/A	N/A	N/A	N/A						
		IGAD		0% (0/0)	N/A	100% (1,104/1,104)	N/A	N/A						
		Mozambique		60%	N/A	56% (1,237/2,213)	12.19% (1,223/10,035)	N/A						
Mozambique PEPFAR		0		0	23% (1,563/6,635)	12.19% (1,223/10,035)	N/A							
Rwanda		N/A		73% (274/374)	55% (102/186)	29% (503/1,746)	31% (694/2,226)							
Tanzania PEPFAR		N/A		N/A	2,641/	N/A	N/A							
NP-MT 5.3.2	# of ADEs reported in Nepal	Annually	194	29	43	6	27							
MT 5.3.4	# of medical product regulatory actions carried out by the NMRA for reasons of drug safety during the reporting period	Annually	0	N/A	N/A	15	Data source not yet available							

¹⁴ Rwanda PY6Q1 field support activities are a continuation of the PY5 work plan.

	<i>Nepal</i>		0	N/A	N/A	15	Data source not yet available					
MT 5.4.1	% of MTaPS-supported HFs that have documented evidence of improvement in antimicrobial medicine prescription and/or use	Annually	0	N/A	N/A	0% (0/3)	N/A					
	<i>Jordan</i>		0	N/A	N/A	0% (0/3)	N/A					
MT 5.4.2	% of MTaPS-supported HFs implementing locally identified and prioritized core elements of IPC activities	Semiannually	0%	100%	100% (7/7)	100% (7/7)	N/A					
	<i>Mozambique</i>		0%	100%	100% (7/7)	100% (7/7)	N/A					
MT 5.4.3	# of AMR-related in-country meetings or activities conducted with multisectoral participation	Quarterly	0	N/A	N/A	4	N/A	N/A				
	<i>Jordan</i>		0	N/A	N/A	4	N/A	N/A				
	<i>Nepal</i>		0	N/A	N/A	N/A	9		N/A			N/A
ML 1	# of marketing authorization commission meetings supported by MTaPS	Quarterly	0	0	0	1	N/A	N/A				
	<i>Mali MNCH</i>		0	0	0	1	N/A	N/A				
ML 2	# of quarterly meetings to orient key stakeholders on using directory of registered medical products	Quarterly	0	0	0	1	N/A	N/A				
	<i>Mali MNCH</i>		0	0	0	1	N/A	N/A				
EVD 1	# of policies, legislation, regulations, operational documents, or guidelines for EVD management developed or updated with TA from MTaPS	Quarterly	0	0	0	3	N/A		N/A			
	<i>Mali</i>		0	0	0	0						
	<i>Rwanda</i>		0	0	0	1						
	<i>Senegal</i>		0	0	0	0						

	Uganda		0	0	0	2																					
EVD 2	# of entities implementing EVD guidelines with MTaPS support	Quarterly	0	0	0	66	N/A	N/A																			
	Côte d'Ivoire		0	0	0	N/A	N/A	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU							
	Mali		0	0	0	7			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU					
									POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE		
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
									ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU
	Rwanda		0	0	0	0			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU					
									POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE		
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
									ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU
	Senegal		0	0	0	0			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU					
									POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE		
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
									ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU
	Uganda		0	0	0	59			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU					
									POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE		
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
									ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU

EVD 3	# of persons who received EVD training with MTaPS support	Quarterly	0	0	0	924	N/A	N/A																		
	Côte d'Ivoire		0	0	0	N/A	N/A	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female						
	Mali		0	0	0	0			Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male					
									Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown		
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
									Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female
	Rwanda		0	0	0	32			Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male					
									Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown		
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
									Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female
	Senegal		0	0	0	0			Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male					
									Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
									Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female
	Uganda		0	0	0	892			Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male					
									Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown		
									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
									Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female

EVD 4	# of MTaPS-supported entities in compliance with EVD IPC guidelines	Quarterly	0	0	0	7		N/A												
	Côte d'Ivoire		0	0	0	N/A	N/A	ETU	N/A	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU		
			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU		Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	
			POE	POE	POE	POE	POE	POE		POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	
	Total		Total	Total	Total	Total	Total	Total		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
	Mali		0	0	0	7		ETU		ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU
			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU		Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU
			POE	POE	POE	POE	POE	POE		POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE
	Total		Total	Total	Total	Total	Total	Total		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
	Rwanda		0	0	0	0		ETU		ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU
			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU		Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU
			POE	POE	POE	POE	POE	POE		POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE
	Total		Total	Total	Total	Total	Total	Total		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
	Senegal		0	0	0	0		ETU		ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU	ETU
			Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU		Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU	Non-ETU
			POE	POE	POE	POE	POE	POE		POE	POE	POE	POE	POE	POE	POE	POE	POE	POE	POE
Total	Total	Total	Total	Total	Total	Total	Total	Total		Total	Total	Total	Total	Total	Total	Total	Total			

PP 2.3.1	% of sentinel facilities using PViMS	Quarterly	0	0	20%	70% (564/801)	100% (197/197)	N/A									
	Philippines		0	0	20%	70% (564/801)	100% (197/197)	N/A									

PH-P 1	# of products that complete HTA process with MTaPS support	Annually	0	N/A	N/A	1	N/A										
	Philippines																

PH- P 2	# of HIV/AIDS commodities that complete the quantification process with MTaPS support	Annually	0	N/A	N/A	9	Data not yet available ¹⁵										
	Philippines																

JO 1	# of National Vaccine Procurement Modernization Committee meetings with MTaPS support	Quarterly	0	N/A	N/A	3	1	N/A									
	Jordan						1	N/A									

JO 2	# of HFs implementing AMR guidelines/protocols developed by MTaPS	Annually	0	N/A	N/A	N/A	3										
	Jordan																

JO 3	# of active hospital-level AMS teams	Annually	0	N/A	N/A	3	3										
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¹⁵ Indicator data are collected through government sources that were not available at the time of data collection.

	<i>Jordan</i>																		
JO 4	# of awareness-raising activities on AMR and rational use of antibiotics conducted	Quarterly	0	N/A	N/A	4	30	N/A											
	<i>Jordan</i>		0	N/A	N/A	4	30	N/A											
JO 5	# of youth reached through AMR activities covering health education messages related to AMR with MTaPS support	Quarterly	0	N/A	N/A	0	2,700	N/A											
	<i>Jordan</i>		0	N/A	N/A	0			N/A	Female	Female	Female	Female						
			Male	Male	Male	Male													
			Unknown	Unknown	Unknown	Unknown													
Total	Total	Total	Total																
JO 6	# of awareness-raising activities to promote vaccine safety messages and reporting of ADRs conducted at the community level	Quarterly	0	N/A	N/A	0	N/A	N/A											
	<i>Jordan</i>		0	N/A	N/A	0	N/A	N/A											
JO 7	# of COVID-19 vaccine safety surveillance reports produced with MTaPS support	Quarterly	0	N/A	N/A	3	N/A	N/A											
	<i>Jordan</i>		0	N/A	N/A	3	N/A	N/A											
JO 8	# of IPC assessments conducted at HFs	Annually	N/A	N/A	N/A	N/A	N/A												
	<i>Jordan</i>			N/A	N/A	N/A													
MSC I	# of AMR-related in-country meetings or activities conducted with multisectoral participation	Quarterly	0	122	170	188	144	45											
	<i>Bangladesh</i>		0	3	2	9	9	2											
	<i>Burkina Faso</i>		0	2	2	4	11	1											
	<i>Cameroon</i>		0	5	7	4	3	1											
	<i>Côte d'Ivoire</i>		0	35	67	76	29	11											
	<i>DRC</i>		0	6	20	8	8	3											
	<i>Ethiopia</i>		0	1	N/A	5	9	N/A											
	<i>Jordan</i>		0	0	2	N/A	N/A	N/A											

	Kenya		0	38	26	24	18	18				
	Mali		0	16	6	13	8	4				
	Mozambique		0	0	13	12	9	N/A				
	Nigeria		0	N/A	6	10	12	1				
	Senegal		0	2	5	8	14	1				
	Tanzania		0	4	2	8	6	3				
	Uganda		0	9	7	7	8	N/A				
	# and % of female participants in meetings or other events organized by the multisectoral body on AMR			39% (842/2,135)	42% (346/825)	32% (779/2,458)	33% (990/2,972)					
	Bangladesh		29% (24/84)	29% (24/84)	29% (12/41)	20% (60/300)	24% (41/171)					
	Burkina Faso		18% (3/17)	22% (6/27)	33% (10/10)	29% (5/17)	33% (56/171)					
	Cameroon		50% (2/4)	39% (39/101)	52% (32/62)	27% (38/138)	49% (40/81)					
	Côte d'Ivoire		38% (21/55)	38% (42/110)	43% (70/163)	39% (151/382)	37% (145/392)					
	DRC		34%	36% (76/212)	32% (30/93)	35% (54/154)	39% (41/105)					
MSC 2	Ethiopia	Semiannually	22%	17% (16/93)	N/A	22% (71/321)	14% (70/490)					
	Jordan		45% (5/11)	Data not reported	45% (5/11)	N/A	N/A					
	Kenya		66%	44% (562/1270)	51% (105/207)	45% (101/226)	45% (205/453)					
	Mali		15%	16% (20/124)	20% (22/109)	21% (82/394)	26% (103/392)					
	Mozambique		48% (11/23)	N/A	40% (4/10)	40% (36/92)	48% (93/195)					
	Nigeria		Data not reported	N/A	41% (17/41)	46% (44/95)	45% (25/56)					
	Senegal		58% (54/93)	58% (54/93)	34% (11/32)	39% (70/181)	38% (127/332)					
	Tanzania		14% (3/21)	14% (3/21)	0% (0/0)	22% (14/63)	28% (12/42)					
	Uganda		Data not reported	N/A	61% (28/46)	43% (44/102)	35% (32/92)					
MSC 3	# of policies, legislation, regulations, and operational documents related to NAP-AMR implementation developed or updated with MTaPS support	Annually	0	17	13	12	19					

								Total		Total	Total	Total	
								Female		Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Burkina Faso	0	0	80	0	0			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Cameroon	0	0	20	N/A	N/A			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Côte d'Ivoire	0	134	0	N/A	N/A			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
DRC	0	0	463	0	N/A			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Ethiopia	0	150	N/A	22	144			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Kenya	0	N/A	N/A	22	0			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Mali	0	30	2	0	N/A			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Mozambique	0	0	45	67	67			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Nigeria	0	N/A	0	25	29			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Senegal	0	0	0	0	N/A			Female	0	Female	Female	Female	
								Male	0	Male	Male	Male	
								Unknown	0	Unknown	Unknown	Unknown	
								Total	0	Total	Total	Total	
Tanzania	0	0	0	N/A	N/A			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	
								Total		Total	Total	Total	
Uganda	0	0	45	101	N/A			Female	N/A	Female	Female	Female	
								Male		Male	Male	Male	
								Unknown		Unknown	Unknown	Unknown	

								Total	Total	Total	Total
MSC 6	# of e-Learning courses or m-mentoring platforms related to AMR developed or adapted with MTaPS support	Annually	0	2	25	26	50				
	Bangladesh		0	0	0	0	1				
	Burkina Faso		0	0	1	0	N/A				
	Cameroon		0	0	20	20	46				
	Côte d'Ivoire		0	1	2	6	1				
	DRC		0	0	0	N/A	N/A				
	Ethiopia		0	N/A	N/A	N/A	2				
	Kenya		0	0	0	0	N/A				
	Mali		0	1	2	N/A	N/A				
	Mozambique		0	N/A	0	N/A	N/A				
	Nigeria		0	N/A	0	N/A	N/A				
	Senegal		0	0	0	0	N/A				
	Tanzania		0	0	0	N/A	N/A				
	Uganda		0	0	0	0	N/A				
MSC 7	# of data collection and analysis mechanisms for tracking AMR-related indicators developed or strengthened with MTaPS support	Annually	0	0	2	5	5				
	Bangladesh		0	0	0	N/A	N/A				
	Burkina Faso		0	0	0	0	N/A				
	Cameroon		0	0	0	1	1				
	Côte d'Ivoire		0	0	0	0	N/A				
	DRC		0	0	1	0	N/A				
	Kenya		0	0	0	1	1				
	Mozambique		0	N/A	1	2	1				
	Nigeria		0	N/A	0	0	N/A				
	Senegal		0	0	0	0	2				
	Tanzania		0	0	0	1	N/A				
	Uganda		0	0	0	0	N/A				

IP 1	# of updated policies, pieces of legislation, regulations, or operational documents for improving IPC	Annually	0	9	3	7	13							
	Bangladesh		0	0	0	N/A	5							
	Burkina Faso		0	0	0	N/A	N/A							
	Cameroon		0	0	1	1	N/A							
	Côte d'Ivoire		0	7	0	0	N/A							
	DRC		0	0	0	N/A	N/A							
	Kenya		0	0	3	2	3							
	Mali		0	1	N/A	1	N/A							
	Mozambique		0	N/A	1	N/A	N/A							
	Nigeria		0	N/A	1	1	2							
	Senegal		0	0	0	1	3							
	Tanzania		0	1	0	1	N/A							
	Uganda		0	0	0	1	N/A							
IP 2	# of persons trained in IPC with MTaPS support	Quarterly	0	1,199	7,477	3,886	3,717	252						
	Bangladesh		Female	0	0	95	264	N/A	N/A	Female	Female	Female	Female	
			Male							Male	Male	Male		
			Unknown							Unknown	Unknown	Unknown		
			Total							Total	Total	Total		
	Cameroon		Female	0	86	88	N/A	N/A	N/A	Female	Female	Female	Female	
			Male							Male	Male	Male		
			Unknown							Unknown	Unknown	Unknown		
			Total							Total	Total	Total		
	Côte d'Ivoire		Female	0	0	131	158	N/A	N/A	18	Female	Female	Female	
			Male							88	Male	Male	Male	
			Unknown							0	Unknown	Unknown	Unknown	
			Total							106	Total	Total	Total	
	DRC		Female	0	0	94	N/A	N/A	N/A	Female	Female	Female	Female	
			Male							Male	Male	Male		
			Unknown							Unknown	Unknown	Unknown		
			Total							Total	Total	Total		
	Ethiopia ¹⁶		Female	0	0	N/A	28	394	394	13	Female	Female	Female	
			Male							12	Male	Male	Male	
			Unknown							0	Unknown	Unknown	Unknown	
			Total							25	Total	Total	Total	
	Kenya		0	642	5,230	742	926			Female	N/A	Female	Female	Female

¹⁶ Ethiopia trainings are continued activities from the PY5 workplan. Ethiopia implementation concluded in November 2023.

								Male		Male	Male	Male											
								Unknown		Unknown	Unknown	Unknown											
								Total		Total	Total	Total											
								Mali		0	N/A	21		29	39	N/A	Female	Female	Female	Female			
																	Male	Male	Male	Male			
																	Unknown	Unknown	Unknown	Unknown			
																	Total	Total	Total	Total			
								Mozambique		0	0	0		57	73	N/A	Female	Female	Female	Female			
																	Male	Male	Male	Male			
																	Unknown	Unknown	Unknown	Unknown			
																	Total	Total	Total	Total			
								Nigeria		0	N/A	15		51	1,478	N/A	Female	Female	Female	Female			
																	Male	Male	Male	Male			
																	Unknown	Unknown	Unknown	Unknown			
																	Total	Total	Total	Total			
								Senegal		0	0	22		717	397	N/A	Female	Female	Female	Female			
																	Male	Male	Male	Male			
																	Unknown	Unknown	Unknown	Unknown			
																	Total	Total	Total	Total			
								Tanzania		0	471	17		117	108	N/A	Female	Female	Female	Female			
																	Male	Male	Male	Male			
																	Unknown	Unknown	Unknown	Unknown			
																	Total	Total	Total	Total			
								Uganda		0	0	1,247		1,770	302	N/A	Female	Female	Female	Female			
Male	Male	Male	Male																				
Unknown	Unknown	Unknown	Unknown																				
Total	Total	Total	Total																				
IP 3	# and % of MTaPS-supported facilities that are using a standardized tool(s) for monitoring IPC and informing programmatic improvement	Quarterly	50% (8/16)	100% (9/9)	94% (107/114)	100% (141/141)	98% (137/140)	100% (87/87)															
														Bangladesh	0% (0/0)	0% (0/0)	100% (2/2)	100% (4/4)	100% (9/9)	N/A	Hospitals	Hospitals	Hospitals
																					Health centers	Health centers	Health centers
																					Others	Others	Others
														Cameroon	0% (0/0)	0% (0/0)	100% (12/12)	100% (12/12)	100% (12/12)	N/A	Hospitals	Hospitals	Hospitals
Health centers	Health centers	Health centers																					
Others	Others	Others																					
Côte d'Ivoire	0% (0/0)	0% (0/0)	100% (12/12)	100% (22/22)	100% (20/20)	N/A	Hospital	Hospital	Hospital														

								Animal health centers	0% (0/0)	Animal health centers	Animal health centers	Animal health centers	
								Others	100% (8/8)	Others	Others	Others	
								Total	100% (20/20)	Total	Total	Total	
								Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals	
DRC		0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	100% (12/12)		Health centers	0% (0/0)	Health centers	Health centers	Health centers	
								Others	0% (0/0)	Others	Others	Others	
								Total	100% (12/12)	Total	Total	Total	
								Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals	
Ethiopia		0% (0/0)	50% (15/30)	N/A	100% (5/5)	100% (8/8)		Hospitals	N/A	Hospitals	Hospitals	Hospitals	
								Health centers		Health centers	Health centers	Health centers	
								Others		Others	Others	Others	
								Total		Total	Total	Total	
Kenya		0% (0/0)	0% (0/0)	100% (20/20)	100% (20/20)	100% (20/20)		Hospitals	100% (4/4)	Hospitals	Hospitals	Hospitals	
								Health centers	0% (0/0)	Health centers	Health centers	Health centers	
								Others	0% (0/0)	Others	Others	Others	
								Total	100% (4/4)	Total	Total	Total	
Mali		0% (0/0)	0% (0/0)	100% (16/16)	100% (16/16)	100% (16/16)		Hospital	100% (9/9)	Hospital	Hospital	Hospital	
								Health centers	100% (7/7)	Health centers	Health centers	Health centers	
								Others	0% (0/0)	Others	Others	Others	
								Total	100% (16/16)	Total	Total	Total	
Mozambique		43% (3/7)	Data not reported	100% (7/7)	100% (7/7)	100% (7/7)		Hospital	N/A	Hospital	Hospital	Hospital	
								Health centers		Health centers	Health centers	Health centers	
								Others		Others	Others	Others	
								Total		Total	Total	Total	
Nigeria		0% (0/0)	N/A	0% (0/0)	100% (7/7)	100% (7/7)		Hospitals	100% (7/7)	Hospitals	Hospitals	Hospitals	
								Health centers	0% (0/0)	Health centers	Health centers	Health centers	
								Others	0% (0/0)	Others	Others	Others	
								Total	100% (7/7)	Total	Total	Total	

Senegal	100% (3/3)	100% (3/3)	100% (8/8)	100% (13/13)	77% (10/13)	Hospitals	100% (6/6)	Hospitals	Hospitals	Hospitals		
						Health centers	0% (0/0)	Health centers	Health centers	Health centers		
						Others	0% (0/0)	Others	Others	Others		
						Total	100% (6/6)	Total	Total	Total		
	Tanzania	33% (2/6)	100% (6/6)	100% (10/10)	100% (10/10)	100% (10/10)	Hospitals	100% (10/10)	Hospitals	Hospitals	Hospitals	
							Health centers	0% (0/0)	Health centers	Health centers	Health centers	
							Others	0% (0/0)	Others	Others	Others	
							Total	100% (10/10)	Total	Total	Total	
	Uganda	0% (0/0)	0% (0/0)	100% (13/13)	100% (13/13)	100% (7/7)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
							Health centers		Health centers	Health centers	Health centers	
							Others		Others	Others	Others	
							Total		Total	Total	Total	
IP 4	# of countries with improved performance in core IPC components at the national level from baseline to follow-up	Annually	0% (0/12)	40% (4/10)	73% (8/11)	83% (10/12)	100% (11/11)					
			Bangladesh	No	No	No	No	Yes				
			Cameroon	No	No	Yes	Yes	Yes				
			Cote d'Ivoire	No	Yes	Yes	Yes	N/A				
			DRC	No	No	No	Yes	Yes				
			Ethiopia	No	Yes	N/A	Yes	Yes				
			Kenya	No	Yes	Yes	Yes	Yes				
			Mali	No	No	Yes	Yes	Yes				
			Mozambique	No	N/A	Yes	Yes	Yes				
			Nigeria	No	N/A	Yes	No	Yes				
			Senegal	No	Yes	Yes	Yes	Yes				
			Tanzania	No	No	Yes	Yes	Yes				
			Uganda	No	No	No	Yes	Yes				
IP 5	# and % of MTaPS-supported facilities implementing CQI to improve IPC	Quarterly	40% (23/57)	83% (39/47)	99% (106/107)	88% (125/141)	42% (134/315)	98% (74/75)				
			Bangladesh	0% (0/0)	0% (0/0)	100% (2/2)	50% (2/4)	100% (9/9)	Hospitals	N/A	Hospitals	Hospitals

							Health centers		Health centers	Health centers	Health centers	
							Others		Others	Others	Others	
							Total		Total	Total	Total	
Cameroon	0% (0/6)	100% (6/6)	100% (12/12)	100% (12/12)	100% (12/12)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals		
						Health centers	0% (0/0)	Health centers	Health centers	Health centers		
						Others	0% (0/0)	Others	Others	Others		
						Total	100% (12/12)	Total	Total	Total		
Côte d'Ivoire	50% (2/4)	100% (4/4)	100% (12/12)	92% (20/22)	100% (20/20)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals		
						Animal health centers	0% (0/0)	Animal health centers	Animal health centers	Animal health centers		
						Others	100% (8/8)	Others	Others	Others		
						Total	100% (20/20)	Total	Total	Total		
DRC	0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	100% (12/12)	Hospitals	N/A	Hospitals	Hospitals	Hospitals		
						Health centers		Health centers	Health centers			
						Others		Others	Others			
						Total		Total	Total	Total		
Ethiopia	0% (0/0)	70%	N/A	0% (0/5)	100% (8/8)	Hospitals	N/A	Hospitals	Hospitals	Hospitals		
						Health centers		Health centers	Health centers			
						Others		Others	Others			
						Total		Total	Total	Total		
Kenya	100% (16/16)	100% (16/16)	100% (20/20)	100% (20/20)	100% (20/20)	Hospitals	100% (4/4)	Hospitals	Hospitals	Hospitals		
						Health centers	0% (0/0)	Health centers	Health centers	Health centers		
						Others	0% (0/0)	Others	Others	Others		
						Total	100% (4/4)	Total	Total	Total		
Mali	0% (0/5)	0% (0/5)	94% (15/16)	100% (16/16)	100% (16/16)	Hospital	100% (9/9)	Hospital	Hospital	Hospital		
						Health centers	86% (6/7)	Health centers	Health centers	Health centers		
						Others	0% (0/0)	Others	Others	Others		
						Total	94% (15/16)	Total	Total	Total		
Mozambique	43% (3/7)		100% (7/7)	100% (7/7)	100% (6/6)	Hospital	N/A	Hospital	Hospital	Hospital		

				Data not reported				Health centers		Health centers	Health centers	Health centers	
								Others		Others	Others	Others	
								Total		Total	Total	Total	
	Nigeria		0% (0/3)	N/A	0% (0/0)	14% (1/7)	100% (7/7)	Hospitals	100% (7/7)	Hospitals	Hospitals	Hospitals	
								Health centers	0% (0/0)	Health centers	Health centers	Health centers	
								Others	0% (0/0)	Others	Others	Others	
								Total	100% (7/7)	Total	Total	Total	
	Senegal		0% (0/3)	0% (0/3)	100% (8/8)	92% (12/13)	54% (7/13)	Hospitals	100% (6/6)	Hospitals	Hospitals	Hospitals	
								Health centers	0% (0/0)	Health centers	Health centers	Health centers	
								Others	0% (0/0)	Others	Others	Others	
								Total	100% (6/6)	Total	Total	Total	
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	100% (10/10)	100% (10/10)	Hospitals	100% (10/10)	Hospitals	Hospitals	Hospitals	
								Health centers	0% (0/0)	Health centers	Health centers	Health centers	
								Others	0% (0/0)	Others	Others	Others	
								Total	100% (10/10)	Total	Total	Total	
	Uganda		0% (0/7)	100% (7/7)	100% (13/13)	100% (13/13)	100% (7/7)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
							Health centers			Health centers	Health centers	Health centers	
							Others			Others	Others	Others	
							Total			Total	Total	Total	
IP 6	# and % of MTaPS-supported facilities with functional IPC committees	Quarterly	35% (18/51)	87% (41/47)	94% (104/110)	98% (139/141)	98% (137/140)	98% (86/87)					
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	100% (6/6)	100% (9/9)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
								Health centers		Health centers	Health centers		
								Others		Others	Others		
	Total		Total	Total									
	Cameroon		0% (0/0)	83% (5/6)	100% (12/12)	100% (12/12)	100% (12/12)	100% (12/12)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals
Health centers		0% (0/0)							Health centers	Health centers	Health centers		
Others		0% (0/0)							Others	Others	Others		

							Total	100% (12/12)	Total	Total	Total		
Côte d'Ivoire	100% (4/4)	100% (4/4)	100% (12/12)	100% (22/22)	100% (20/20)	100% (20/20)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals		
							Animal health centers	0% (0/0)	Animal health centers	Animal health centers	Animal health centers		
							Others	100% (8/8)	Others	Others	Others		
							Total	100% (20/20)	Total	Total	Total		
DRC	0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	100% (12/12)	100% (12/12)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals		
							Health centers	0% (0/0)	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others		
							Total	100% (12/12)	Total	Total	Total		
Ethiopia	0% (0/0)	100%	N/A	100% (5/5)	100% (8/8)	100% (8/8)	Hospitals	N/A	Hospitals	Hospitals	Hospitals		
							Health centers		Health centers	Health centers	Health centers		
							Others		Others	Others	Others		
							Total		Total	Total	Total		
Kenya	0% (0/16)	100% (16/16)	92% (18/20)	100% (20/20)	100% (20/20)	100% (20/20)	Hospitals	100% (4/4)	Hospitals	Hospitals	Hospitals		
							Health centers	0% (0/0)	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others		
							Total	100% (4/4)	Total	Total	Total		
Mali	0% (0/5)	0% (0/5)	75% (12/16)	100% (16/16)	100% (16/16)	100% (16/16)	Hospital	100% (9/9)	Hospital	Hospital	Hospital		
							Health centers	86% (6/7)	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others		
							Total	94% (15/16)	Total	Total	Total		
Mozambique	43% (3/7)	Data not reported	100% (7/7)	100% (7/7)	100% (6/6)	100% (6/6)	Hospitals	N/A	Hospital	Hospital	Hospital		
							Health centers		Health centers	Health centers	Health centers		
							Others		Others	Others	Others		
							Total		Total	Total	Total		
Nigeria	0% (0/3)	N/A	0% (0/3)	86% (6/7)	100% (7/7)	100% (7/7)	Hospitals	100% (7/7)	Hospitals	Hospitals	Hospitals		
							Health centers	0% (0/0)	Health centers	Health centers	Health centers		

								Others	0% (0/0)	Others		Others		Others	
								Total	100% (7/7)	Total		Total		Total	
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	92% (12/13)	77% (10/13)	Hospitals	100% (6/6)	Hospitals		Hospitals		Hospitals	
								Health centers	0% (0/0)	Health centers		Health centers		Health centers	
								Others	0% (0/0)	Others		Others		Others	
								Total	100% (6/6)	Total		Total		Total	
	Tanzania		17% (1/6)	100% (6/6)	100% (10/10)	100% (10/10)	100% (10/10)	Hospitals	100% (10/10)	Hospitals		Hospitals		Hospitals	
								Health centers	0% (0/0)	Health centers		Health centers		Health centers	
								Others	0% (0/0)	Others		Others		Others	
								Total	100% (10/10)	Total		Total		Total	
	Uganda		100% (7/7)	100% (7/7)	100% (13/13)	100% (13/13)	100% (7/7)	Hospitals	N/A	Hospitals		Hospitals		Hospitals	
								Health centers		Health centers		Health centers		Health centers	
								Others		Others		Others		Others	
								Total		Total		Total		Total	
IP 7	# and % of MTaPS-supported facilities with improved HH compliance	Annually	0	100% (36/36)	85% (88/104)	73% (103/141)	82% (112/137)								
	Bangladesh		0	N/A	100% (2/2)	100% (4/4)	22% (2/9)	Hospitals							
								Total							
	Cameroon		0	N/A	100% (12/12)	92% (11/12)	42% (5/12)	Hospitals							
								Total							
	Côte d'Ivoire		0	100% (4/4)	90% (9/12)	45% (10/22)	90% (18/20)	Hospitals							
								Others							
								Total							
	DRC		0	N/A	57% (4/7)	100% (12/12)	100% (12/12)	Hospitals							
									Total						
Ethiopia		0	N/A	N/A	0% (0/5)	62% (5/8)	Hospitals								
								Total							
Kenya		0	100% (16/16)	100% (20/20)	100% (20/20)	100% (20/20)	Hospitals								
								Health centers							
								Total							
Mali		0	N/A	94% (15/16)	75% (12/16)	86% (14/16)	Hospital								
								Health centers							
								Total							
Mozambique		0	N/A	0% (0/7)	43% (3/7)	100% (3/3)	Hospitals								

								Total	
	Nigeria		0	N/A	0% (1/3)	14% (1/7)	100% (7/7)	Hospitals	
								Total	
	Senegal		0	100% (3/3)	100% (8/8)	54% (7/13)	83% (10/13)	Hospitals	
								Health Centers	
								Total	
	Tanzania		0	100% (6/6)	100% (10/10)	100% (10/10)	100% (10/10)	Hospitals	
								Total	
	Uganda		0	100% (7/7)	100% (7/7)	100% (13/13)	86% (6/7)	Hospitals	
								Total	
	# and % of MTaPS-supported facilities with improved performance in core IPC components		0	35% (26/73)	75% (78/104)	80% (113/141)	89% (122/137)		
	Bangladesh		0	50% (1/2)	100% (2/2)	100% (4/4)	100% (9/9)	Hospitals	
								Total	
	Cameroon		0	N/A	100% (12/12)	92% (11/12)	92% (11/12)	Hospitals	
								Total	
	Côte d'Ivoire		0	N/A	80% (8/12)	41% (9/22)	90% (18/20)	Hospitals	
								Others	
								Total	
	DRC		0	N/A	0% (0/7)	100% (12/12)	100% (12/12)	Hospitals	
								Total	
	Kenya	Annually	0	100% (16/16)	100% (20/20)	100% (20/20)	100% (20/20)	Hospitals	
								Health centers	
								Total	
	Mali		0	N/A	94% (15/16)	81% (13/16)	87% (14/16)	Hospital	
								Health centers	
								Total	
	Mozambique		0	N/A	100% (7/7)	100% (7/7)	100% (3/3)	Hospitals	
								Total	
	Nigeria		0	N/A	0% (0/3)	14% (1/7)	100% (7/7)	Hospitals	
								Total	
	Senegal		0	100% (3/3)	100% (8/8)	100% (13/13)	54% (7/13)	Hospitals	
								Health centers	
								Total	
	Tanzania		0	100% (6/6)	60% (6/10)	100% (10/10)	100% (10/10)	Hospitals	
								Total	
	Uganda		0	N/A	0% (0/7)	100% (13/13)	86% (6/7)	Hospitals	
								Total	
AS I	# of policies, pieces of legislation, regulations, or operational documents related to	Annually	0	5	12	18	20		

Côte d'Ivoire	0% (0/0)	0% (0/0)	75% (9/12)	91% (20/22)	85% (17/20)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Others	100% (8/8)	Others	Others	Others	
						Total	100% (20/20)	Total	Total	Total	
DRC	0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	100% (12/12)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Others	0% (0/0)	Others	Others	Others	
						Total	100% (12/12)	Total	Total	Total	
Ethiopia	0% (0/0)	N/A	N/A	0% (0/5)	100% (8/8)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
						Health centers		Health centers	Health centers	Health centers	
						Others		Others	Others	Others	
						Total		Total	Total	Total	
Kenya	6% (1/16)	100% (18/18)	83% (20/24)	100% (21/21)	92% (22/24)	Hospitals	100% (6/6)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Pharmacy	0% (0/0)	Others	Pharmacy	Pharmacy	
						Total	100% (6/6)	Total	Total	Total	
Mali	0% (0/0)	0% (0/0)	56% (9/16)	75% (12/16)	100% (16/16)	Hospital	89% (8/9)	Hospitals	Hospital	Hospital	
						Health centers	86% (6/7)	Health centers	Health centers	Health centers	
						Others	0% (0/0)	Others	Others	Others	
						Total	87% (14/16)	Total	Total	Total	
Mozambique	0% (0/7)	Data not reported	0% (0/7)	43% (3/7)	100% (6/6)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
						Health centers		Health centers	Health centers	Health centers	
						Others		Others	Others	Others	
						Total		Total	Total	Total	
Nigeria	0% (0/3)	N/A	0% (0/0)	100% (7/7)	100% (7/7)	Hospitals	100% (7/7)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Others	0% (0/0)	Others	Others	Others	

								Total	100% (7/7)	Total	Total	Total	Total	
Senegal ¹⁷		0% (0/0)	0% (0/0)	0% (0/8)	0% (0/14)	0% (0/13)	Hospitals	0% (0/4)	Hospitals	Hospitals	Hospitals	Hospitals	Hospitals	
							Health centers	0% (0/0)	Health centers	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others	Others		
							Total	0% (0/4)	Total	Total	Total	Total		
Tanzania		0% (0/6)	0% (0/6)	20% (2/10)	100% (10/10)	100% (10/10)	Hospitals	100% (10/10)	Hospitals	Hospitals	Hospitals	Hospitals	Hospitals	
							Health centers	0% (0/0)	Health centers	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others	Others		
							Total	100% (10/10)	Total	Total	Total	Total		
Uganda		43% (3/7)	100% (7/7)	100% (13/13)	100% (13/13)	100% (7/7)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	Hospitals	Hospitals	
							Health centers		Health centers	Health centers	Health centers	Health centers		
							Others		Others	Others	Others	Others		
							Total		Total	Total	Total	Total		
AS 3	# of persons trained in AMS topics with MTaPS support	0	436	4721	4,051	2,638	962							
	Bangladesh	0	0	0	420	260	Female	N/A	Female	Female	Female	Female	Female	
							Male		Male	Male	Male	Male		
							Unknown		Unknown	Unknown	Unknown	Unknown		
							Total		Total	Total	Total	Total		
	Burkina Faso	0	0	97	86	N/A	Female	N/A	Female	Female	Female	Female	Female	
							Male		Male	Male	Male	Male		
							Unknown		Unknown	Unknown	Unknown	Unknown		
Total							Total		Total	Total	Total			
Cameroon	0	0	222	17	N/A	Female	N/A	Female	Female	Female	Female	Female		
						Male		Male	Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown	Unknown			
						Total		Total	Total	Total	Total			
Côte d'Ivoire	0	0	237	104	36	Female	62	Female	Female	Female	Female	Female		
						Male		Male	Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown	Unknown			
						Total		Total	Total	Total	Total			
DRC	0	0	274	91	N/A	Female	0	Female	Female	Female	Female	Female		
						Male		Male	Male	Male	Male			
						Unknown		Unknown	Unknown	Unknown	Unknown			
						Total		Total	Total	Total	Total			
Ethiopia	0	0	N/A	180	490	Female	N/A	Female	Female	Female	Female	Female		

¹⁷ Senegal PY6QI AMS activities are a continuation of the PY5 work plan.

								Male		Male	Male	Male									
								Unknown		Unknown	Unknown	Unknown									
								Total		Total	Total	Total									
								Kenya		0	165	1,333	869	895	Female	325	Female	Female	Female		
															Male	436	Male	Male	Male		
															Unknown	0	Unknown	Unknown	Unknown		
															Total	761	Total	Total	Total		
								Mali		0	0	136	49	6	Female	N/A	Female	Female	Female		
															Male		Male	Male	Male		
															Unknown		Unknown	Unknown	Unknown		
															Total		Total	Total	Total		
								Mozambique		0	0	0	34	72	Female	N/A	Female	Female	Female		
															Male		Male	Male	Male		
															Unknown		Unknown	Unknown	Unknown		
															Total		Total	Total	Total		
								Nigeria		0	N/A	18	108	50	Female	N/A	Female	Female	Female		
															Male		Male	Male	Male		
															Unknown		Unknown	Unknown	Unknown		
															Total		Total	Total	Total		
								Senegal ¹⁸		0	0	0	0	61	Female	N/A	Female	Female	Female		
															Male		15	Male	Male	Male	
															Unknown		0	Unknown	Unknown	Unknown	
															Total		23	Total	Total	Total	
								Tanzania		0	201	0	N/A	24	Female	N/A	Female	Female	Female		
Male	63	Male	Male	Male																	
Unknown	0	Unknown	Unknown	Unknown																	
Total	116	Total	Total	Total																	
Uganda	0	70	2,513	1,776	N/A	Female	N/A	Female	Female	Female											
						Male		Male	Male	Male											
						Unknown		Unknown	Unknown	Unknown											
						Total		Total	Total	Total	Total										
AS 4	# and % of MTaPS-supported facilities implementing CQI to improve AMS	Quarterly	49% (24/49)	75% (41/55)	57% (71/124)	68% (106/155)	87% (137/154)	87% (74/85)													
	Bangladesh		0% (0/0)	0% (0/0)	0% (0/2)	50% (2/4)	100% (9/9)	Hospitals	N/A	Hospitals	Hospitals	Hospitals									
Health centers		Health centers	Health centers	Health centers																	
Others		Others	Others	Others																	
Total		Total	Total	Total	Total	Total	Total	Total		Total	Total										

¹⁸ Senegal PY6QI AMS activities are a continuation of the PY5 work plan.

Burkina Faso	0% (0/0)	100% (5/5)	25% (3/12)	0% (0/10)	100% (10/10)	Hospitals	30% (3/10)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Others	0% (0/0)	Others	Others	Others	
						Total	30% (3/10)	Total	Total	Total	
Cameroon	0% (0/0)	0% (0/6)	92% (11/12)	100% (12/12)	100% (12/12)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
						Health centers		Health centers	Health centers	Health centers	
						Others		Others	Others	Others	
						Total		Total	Total	Total	
Côte d'Ivoire	0% (0/0)	100% (2/2)	90% (9/10)	91% (20/22)	85% (17/20)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Others	100% (8/8)	Others	Others	Others	
						Total	100% (20/20)	Total	Total	Total	
DRC	0% (0/0)	100% (3/3)	100% (7/7)	100% (12/12)	100% (12/12)	Hospitals	100% (12/12)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Others	0% (0/0)	Others	Others	Others	
						Total	100% (12/12)	Total	Total	Total	
Ethiopia	3% (1/30)	13% (4/30)	N/A	0% (0/5)	100% (8/8)	Hospitals	N/A	Hospitals	Hospitals	Hospitals	
						Health centers		Health centers	Health centers	Health centers	
						Others		Others	Others	Others	
						Total		Total	Total	Total	
Kenya	100% (18/18)	100% (18/18)	92% (22/24)	91% (21/23)	92% (22/24)	Hospitals	100% (6/6)	Hospitals	Hospitals	Hospitals	
						Health centers	0% (0/0)	Health centers	Health centers	Health centers	
						Pharmacy	0% (0/0)	Pharmacy	Pharmacy	Pharmacy	
						Total	100% (6/6)	Total	Total	Total	
Mali	0% (0/5)	0% (0/5)	13% (2/16)	75% (12/16)	100% (16/16)	Hospital	89% (8/9)	Hospitals	Hospital	Hospital	
						Health centers	85% (6/7)	Health centers	Health centers	Health centers	
						Others	0% (0/0)	Others	Others	Others	

								Total	87% (14/16)	Total	Total	Total	
	Mozambique	0% (0/7)	Data not reported	57% (4/7)	100% (7/7)	100% (6/6)	Hospital	N/A	Hospital	Hospital	Hospital		
						Health centers	Health centers		Health centers	Health centers			
						Others	Others		Others	Others			
						Total	Total		Total	Total			
	Nigeria	0% (0/3)	N/A	0% (0/3)	14% (1/7)	100% (7/7)	Hospitals	100% (7/7)	Hospitals	Hospitals	Hospitals		
							Health centers	0% (0/0)	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others		
							Total	Total	Total	Total	Total		
	Senegal ¹⁹	0% (0/3)	0% (0/3)	0% (0/8)	0% (0/14)	8% (1/13)	Hospitals	50% (2/4)	Hospitals	Hospitals	Hospitals		
							Health centers	0% (0/0)	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others		
							Total	Total	Total	Total	Total		
	Tanzania	0% (0/6)	100% (6/6)	20% (2/10)	60% (6/10)	100% (10/10)	Hospitals	100% (10/10)	Hospitals	Hospitals	Hospitals		
							Health centers	0% (0/0)	Health centers	Health centers	Health centers		
							Others	0% (0/0)	Others	Others	Others		
							Total	Total	Total	Total	Total		
	Uganda	86% (6/7)	100% (7/7)	100% (13/13)	100% (13/13)	100% (7/7)	Hospitals	N/A	Hospitals	Hospitals	Hospitals		
							Health centers		Health centers	Health centers	Health centers		
							Others		Others	Others	Others		
							Total		Total	Total	Total	Total	
AS 5	#/% of MTaPS-supported facilities that have documented evidence of improvement in antimicrobial medicine prescribing or use	Annually	49% (27/55)	29% (35/120)	36% (57/155)	65% (88/135)							
	Bangladesh	0%	N/A	0% (0/2)	50% (2/4)	0% (0/9)	Hospitals						
	Burkina Faso	0%	0% (0/5)	0% (0/12)	0% (0/10)	0% (0/10)	Total						
							Hospitals						

¹⁹ Senegal PY6QI AMS activities are a continuation of the PY5 work plan.

								Total			
	Cameroon		0%	N/A	0% (0/12)	92% (11/12)	92% (11/12)	Hospitals			
								Total			
	Côte d'Ivoire		0%	0% (0/2)	0% (0/12)	14% (3/22)	75% (15/20)	Hospitals			
								Health centers			
								Total			
	DRC		0%	100% (3/3)	0% (0/7)	58% (7/12)	100% (12/12)	Hospitals			
								Total			
	Kenya		0%	100% (18/18)	92% (22/24)	91% (21/23)	92% (22/24)	Hospitals			
								Health centers			
								Pharmacies			
								Total			
	Mali		0%	N/A	13% (2/16)	0% (0/16)	N/A	Hospital			
								Health centers	-		
								Total			
	Mozambique		0%	N/A	71% (5/7)	28% (2/7)	100% (3/3)	Hospitals			
								Total			
	Nigeria		0%	N/A	0% (0/3)	0% (0/7)	57% (4/7)	Hospitals			
								Total			
	Senegal		0%	N/A	0% (0/8)	0% (14/14)	0% (0/13)	Hospitals			
								Total			
	Tanzania		0%	100% (6/6)	60% (6/10)	70% (7/10)	100% (10/10)	Hospitals			
								Total			
	Uganda		0%	0% (0/7)	0% (0/7)	31% (4/13)	86% (6/7)	Hospitals			
								Total			
DRC 1	# of quality-assured MNCH, RH/FP, and TB medicine products registered with MTaPS support	Semiannually	0	0	29	26	N/A				
DRC 2	# of community-based organization (CBO) members that have been capacitated to participate in oversight of pharmaceutical management for MNCH commodities with MTaPS support	Annually	0	0	350	344	323				
DRC 3	# of HFs that are implementing the posttraining action plan	Annually	0	0	0	50	22				
DRC 4	% of facilities implementing appropriate storage of oxytocin	Quarterly	0	N/A	64% (46/72)	75% (54/72)	83% (60/72)	N/A ²⁰			
DRC 5	# of DPS and/or IPS using the updated	Semiannually	0	0	7	4	8				

²⁰ DRC MNCH PY6 activities have not yet begun.

	directory of registered medicines									
DRC 8	# of HZs involved in provincial quantification exercises with MTaPS support	Semiannually	0	0	19	10	N/A			
DRC 9	# of MNCH treatment protocols or job aids disseminated to HFs with MTaPS support	Semiannually	0	0	0	0	N/A			
DRC 10	# of contraceptive kits (reduced FP package) distributed to CCSs in MTaPS-supported HZs	Semiannually	0	0	0	0	0			
DRC 11	% of CCSs reporting contraceptive data to HFs in MTaPS-supported HZs	Semiannually	0%	0	0% (0/12)	0%	100% (152/152)			
DRC 12	# of mini awareness-raising campaigns for active detection of TB and adherence to TB treatment supported by MTaPS	Semiannually	0	0	0	2	N/A			
DRC 13	# of sensitization meetings to explain the role and scope of National Supply Chain Management Professionals Association	Annually	0	N/A	N/A	N/A	N/A			
BG 1	% of procurement packages of DGFP and DGHS that are on schedule	Annually	0	0	82%	50%	50% (1/2)			
BG 4	% of target HFs that keep complete TB patient information (as per national standards)	Annually	0	N/A	44%	71% (64/90)	66% (58/88)			
BG 8	# of laws, policies, regulations, action plans, or standards formally proposed, adopted, or implemented as supported by USG assistance	Annually	N/A	N/A	N/A	N/A	4			
BG 9	# of program approaches/initiatives adopted/changed because of evidence-	Annually	N/A	N/A	N/A	N/A	3			

	based recommendations and/or advocacy by USAID-supported activities												
BG 10	# and % of district hospitals using eAMS	Annually	N/A	N/A	N/A	N/A	75% (46/61)						
BG 12	# of health commodities tracked through USAID-supported eLMIS	Annually	N/A	N/A	N/A	N/A	N/A						
BG 13	# of organizations whose members/staff were trained and/or mentored through USAID support	Semiannually	N/A	N/A	N/A	N/A	64						
BG 14	# of TB patients registered in e-TB Manager	Quarterly	0	N/A	N/A	N/A	295,280	77,866					
IN 4.3.1a	# of analytical products developed and used to inform policies or guidance based on evidence	Annually	0	N/A	N/A	1	5						
IN 4.3.1b	% of TB financing expected from domestic sources	Annually	0	N/A	N/A	N/A	22%						
IN 4.3.3b	# of health personnel receiving capacity development support to optimize the management of health services	Annually	0	N/A	N/A	242	60						
IP.MP.1	# of facilities receiving MTaPS support to strengthen IPC and/or WASH practices for monkeypox	Quarterly	0	N/A	N/A	N/A	177	N/A					
	DRC		0	N/A	N/A	N/A	177	N/A ²¹					
IP.MP.2	# of people trained to prevent, detect, and/or respond to monkeypox outbreak with MTaPS support	Quarterly	0	N/A	N/A	N/A	319	N/A					
	DRC		0	N/A	N/A	N/A	319	N/A ²¹					
IP.MP.3	# of posttraining supervision visits conducted	Quarterly	0	N/A	N/A	N/A	6	N/A					

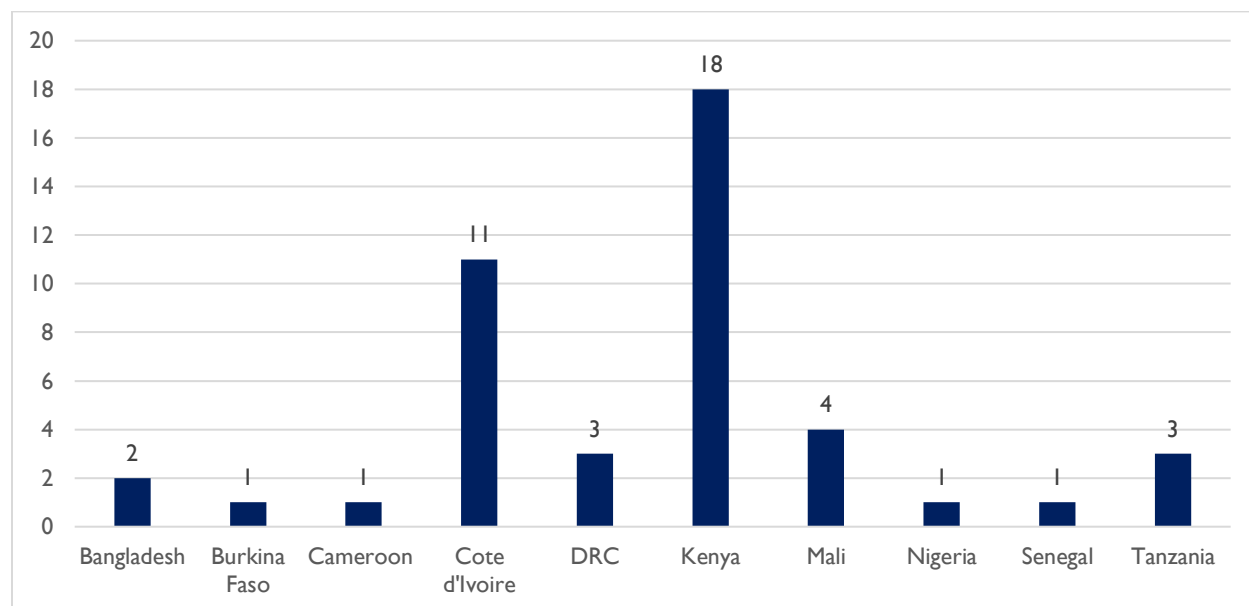
²¹ DRC monkeypox activities concluded at the end of PY5.

	DRC		0	N/A	N/A	N/A	6	N/A ²¹				
IP.MP.4	# of field supervision visits conducted	Quarterly	0	N/A	N/A	N/A	10	N/A				
	DRC		0	N/A	N/A	N/A	10	N/A ²¹				
IP.MP.5	Were the findings from supervision visits sent to HZs and/or HF's?	Quarterly	0	N/A	N/A	N/A	6	N/A				
	DRC		0	N/A	N/A	N/A	6	N/A ²¹				
IP.MP.6	Are the recommendations made after supervision visits implemented by HZs and/or HF's?	Quarterly	0	N/A	N/A	N/A	17	N/A				
	DRC		0	N/A	N/A	N/A	17	N/A ²¹				
IP.MP.7	# and % of MTaPS-supported HF's that are using standardized tool(s) for monitoring IPC and informing programmatic improvement for monkeypox	Semiannually	N/A	N/A	N/A	N/A	47					
	DRC		N/A	N/A	N/A	N/A	47 ²¹					
AB HL5	# of analytical products and services completed and used to advance health development goals in Asia	Annually	0	N/A	8	3	1					
	Asia Bureau		0	N/A	8	3	1					
AB HL7	# of individuals receiving capacity development support to advance health development goals in Asia	Annually	0	N/A	401	173	134					
	Asia Bureau		0	N/A	401	173	134					
AB HL8	# of institutions and/or platforms receiving capacity strengthening support to advance health development goals in Asia	Annually	0	N/A	30	15	2					
	Asia Bureau		0	N/A	30	15	2					

ANNEX 2. GLOBAL HEALTH SECURITY AGENDA—QUARTER PROGRESS FOR FY24Q1

SUMMARY OF ACTIVITIES FOR THIS QUARTER (FY24Q1)

SELECTED MTAPS GHSA INDICATOR PROGRESS



Annex Figure 1. MSCI. # of AMR-related in-country meetings or activities conducted with multisectoral participation in PY6Q1

Annex Table 2.1 IP3. % of MTaPS-supported facilities that are using standardized tools for monitoring IPC and informing programmatic improvement

Quarter	Country											
	Bangladesh ¹	Cameroon	Côte d'Ivoire ²	DRC ³	Ethiopia ⁴	Kenya ⁵	Mali	Mozambique ⁶	Nigeria	Senegal ⁷	Tanzania	Uganda ⁸
PY5Q1	55% (5/9)	100% (12/12)	100% (20/20)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (7/7)	100% (7/7)	77% (10/13)	100% (10/10)	100% (7/7)
PY5Q2	67% (6/9)	100% (12/12)	100% (20/20)	50% (6/12)	100% (7/7)	100% (20/20)	100% (16/16)	100% (7/7)	100% (7/7)	77% (10/13)	100% (10/10)	100% (7/7)
PY5Q3	100% (9/9)	100% (12/12)	100% (20/20)	100% (12/12)	100% (8/8)	100% (20/20)	100% (16/16)	100% (3/3)	100% (7/7)	Data not collected	100% (10/10)	100% (7/7)
PY5Q4	100% (9/9)	100% (12/12)	95% (19/20)	100% (12/12)	100% (8/8)	100% (20/20)	100% (16/16)	N/A	100% (7/7)	61% (8/13)	100% (10/10)	100% (7/7)
PY6Q1	N/A	100% (12/12)	100% (20/20)	100% (12/12)	N/A	100% (4/4)	100% (16/16)	N/A	100% (7/7)	100% (6/6)	100% (10/10)	N/A

¹ In PY5Q1 and Q2, supportive supervision was not provided to four facilities and training was not provided to three facilities. Bangladesh GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

² In PY5Q4, CHR of San Pedro is not functional because the hospital IPC committee members have been relocated.

³ In PY5Q2, six facilities did not receive supportive supervision; thus, data could not be obtained.

⁴ In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two hospitals were added; in Q3, one additional facility was added. Ethiopia GHSa support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

⁵ Refer to the Kenya narrative in the report for details of closeout in the previous 16 facilities.

⁶ In PY5Q3, four facilities were dropped (total facilities reduced from seven to three) due to budget constraints. Mozambique GHSa portfolio completed implementation in June 2023; thus, no data are reported in PY6Q1.

⁷ In PY5Q1–Q2, one facility had inadequate IPC capacity; a strategic plan was created in Q2 to improve capacity. Data for the two remaining facilities were not obtained. In PY5Q3, data were not collected at facilities and values could not be reported due to time constraints. Activities were focused on national IPC implementation. In PY5Q4, data could not be collected from five facilities. This data collection resumed in PY6Q1.

⁸ Uganda GHSa support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

Annex Table 2.2. IP5. Percentage of MTaPS-supported facilities implementing CQI to improve IPC

Quarter	Country											
	Bangladesh ¹	Cameroon	Côte d'Ivoire ²	DRC ³	Ethiopia ⁴	Kenya ⁵	Mali ⁶	Mozambique ⁷	Nigeria	Senegal ⁸	Tanzania	Uganda ⁹
PY5Q1	44% (4/9)	100% (12/12)	100% (20/20)	100% (12/12)	100% (5/5)	100% (20/20)	94% (15/16)	100% (7/7)	100% (7/7)	69% (9/13)	100% (10/10)	100% (7/7)
PY5Q2	67% (6/9)	100% (12/12)	100% (20/20)	50% (6/12)	100% (7/7)	100% (20/20)	100% (16/16)	100% (7/7)	100% (7/7)	31% (4/13)	100% (10/10)	100% (7/7)
PY5Q3	100% (9/9)	100% (12/12)	100% (20/20)	100% (12/12)	100% (8/8)	100% (20/20)	100% (16/16)	100% (3/3)	100% (7/7)	Data not collected	100% (10/10)	100% (7/7)
PY5Q4	100% (9/9)	100% (12/12)	0% (0/20)	100% (12/12)	100% (8/8)	100% (20/20)	100% (16/16)	N/A	100% (7/7)	61% (8/13)	100% (10/10)	100% (7/7)
PY6Q1	N/A	100% (12/12)	100% (20/20)	N/A	N/A	100% (4/4)	94% (15/16)	N/A	100% (7/7)	100% (6/6)	100% (10/10)	N/A

¹ A consultant was hired to assist CDC/DGHS in developing and updating CQI plans in PY5Q2 and implement the plans in the remaining facilities. Bangladesh GHSa support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

² PY5Q4, CQI assessments and meetings were not conducted in this quarter at any facilities.

³ In PY5Q2, six facilities did not receive supportive supervision; thus, data could not be obtained. No CQI activities were planned in PY6Q1.

⁴ In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two hospitals were added; in Q3, one additional facility was added. Ethiopia GHSa support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

⁵ For the final year of MTaPS, implementation is scaled down to 4 facilities. Refer to the Kenya narrative in the report for details of closeout in the previous 16 facilities.

⁶ In PY5Q1, the Dermatology Hospital of Bamako had not begun implementing action plans. In Q2, all facilities implemented CQI. In PY6Q1 Koutiala health center did not implement CQI activities, due to competing priorities. MTaPS continued to sensitize for CQI plan implementation.

⁷ In PY5Q3, four facilities were dropped due to budget constraints. Mozambique GHSa support for IPC activities concluded in June 2023; therefore, Q4 and subsequent data are not reported.

⁸ In PY5Q2, four remaining facilities conducted a self-evaluation. The six facilities that implemented standardized tools and the remaining two facilities were not evaluated for CQI. In PY5Q3, data were not collected at facilities and values could not be reported. Activities were focused on national IPC implementation. In PY5Q4, data could not be collected from five facilities.

⁹ Uganda GHSa support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

Annex Table 2.3. IP6. Percentage of MTaPS-supported facilities with functional IPC committees

Quarter	Country											
	Bangladesh ¹	Cameroon	Côte d'Ivoire ²	DRC ³	Ethiopia ⁴	Kenya ⁵	Mali ⁶	Mozambique ⁷	Nigeria	Senegal ⁸	Tanzania	Uganda ⁹
PY5Q1	100% (9/9)	100% (12/12)	100% (20/20)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (7/7)	100% (7/7)	77% (10/13)	100% (10/10)	100% (7/7)
PY5Q2	100% (9/9)	100% (12/12)	100% (20/20)	50% (6/12)	86% (6/7)	100% (20/20)	100% (16/16)	100% (7/7)	100% (7/7)	77% (10/13)	100% (10/10)	100% (7/7)
PY5Q3	100% (9/9)	100% (12/12)	100% (20/20)	100% (12/12)	100% (8/8)	100% (20/20)	100% (16/16)	100% (3/3)	100% (7/7)	Data not collected	100% (10/10)	100% (7/7)
PY5Q4	100% (9/9)	100% (12/12)	95% (19/20)	100% (12/12)	100% (8/8)	100% (20/20)	100% (16/16)	N/A	100% (7/7)	61% (8/13)	100% (10/10)	100% (7/7)
PY6Q1	N/A	100% (12/12)	100% (20/20)	100% (12/12)	N/A	100% (4/4)	94% (15/16)	N/A	100% (7/7)	100% (6/6)	100% (10/10)	N/A

¹ Bangladesh GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

² In PY5Q4, CHR of San Pedro is not functional because the hospital IPC committee members have been relocated.

³ In PY5Q2, six facilities did not receive supportive supervision; thus, data could not be obtained.

⁴ In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two hospitals were added; in Q3, one additional facility was added. Ethiopia GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

⁵ For the final year of MTaPS, implementation is scaled down to 4 facilities. Refer to the Kenya narrative in the report for details of closeout in the previous 16 facilities.

⁶ In PY6,Q1 Koutiala health center the IPC committee did not hold any meetings or implement activities due to competing priorities.

⁷ In PY5Q3, four facilities were dropped due to budget constraints. Mozambique GHSA support for IPC activities concluded in June 2023; therefore, Q4 and subsequent data are not reported.

⁸ In PY5Q1–Q2, one facility had inadequate IPC capacity and a strategic plan was created in Q2 to improve. Data for the two remaining facilities were not obtained. In PY5Q3, data were not collected at facilities and values could not be reported.

Activities were focused on national IPC implementation. In PY5Q4, data could not be collected from five facilities.

⁹ Uganda GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

Annex Table 2.4. AS2. Percentage of MTaPS-supported facilities' medicines and therapeutics/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework

Quarter	Country												
	Bangladesh ¹	Burkina Faso ²	Cameroon ³	Côte d'Ivoire ⁴	DRC	Ethiopia ⁵	Kenya ⁶	Mali ⁷	Mozambique ⁸	Nigeria	Senegal ⁹	Tanzania	Uganda ¹⁰
PY5Q1	44% (4/9)	100% (10/10)	100% (12/12)	70% (14/20)	100% (12/12)	100% (5/5)	87% (21/24)	81% (13/16)	100% (7/7)	100% (7/7)	N/A	100% (10/10)	100% (7/7)
PY5Q2	44% (4/9)	N/A	100% (12/12)	100% (20/20)	100% (12/12)	100% (7/7)	92% (22/24)	87% (14/16)	100% (7/7)	100% (7/7)	N/A	100% (10/10)	100% (7/7)
PY5Q3	100% (9/9)	60% (6/10)	92% (11/12)	95% (19/20)	100% (12/12)	100% (8/8)	92% (22/24)	100% (16/16)	100% (3/3)	100% (7/7)	N/A	100% (10/10)	100% (7/7)
PY5Q4	100% (9/9)	40% (4/10)	92% (11/12)	85% (17/20)	100% (12/12)	100% (8/8)	92% (22/24)	100% (16/16)	N/A	100% (7/7)	0% (0/13)	100% (10/10)	100% (7/7)
PY6Q1	N/A	30% (3/10)	N/A	100% (20/20)	100% (12/12)	N/A	100% (6/6)	87% (14/16)	N/A	100% (7/7)	0% (0/4)	100% (10/10)	N/A

¹ In PY5Q1, five facilities did not receive supportive supervision or training. In PY5Q2, six facilities received supportive supervision and training. During visits, it was found that facilities were not implementing AMS activities as needed due to a lack of technical expertise and training. The MTaPS team gave strong feedback on AMS activities at each facility at that time.

Bangladesh GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

² In PY5Q2, MTaPS was unable to conduct supervision visits and obtain activity data. In PY5Q3, four facilities did not receive site visits to document achievements. In PY5Q4, MTaPS only had budget to implement CQI in four facilities. In PY6Q1, MTaPS provided supportive supervision to three facilities; the remaining facilities will receive supervision next quarter.

³ In PY5Q3, activity implementation was not optimal in Mbal Mayo District Hospital because the trained personnel have been posted to different health facilities. PY5Q4 Mbal Mayo Hospital became nonfunctional as the hospital Director DTC members were transferred to other facilities; thus, a facility was dropped. In PY6, no facility-level AMS activities are planned.

⁴ In PY5Q1, six sites did not receive supportive supervision from the AMS team; thus, information for this indicator was not collected for the facilities. In PY5Q3, San Pedro's AMS committee was not functional. San Pedro received a new CHR. This has led to a suspension of the AMS committee's activities. PY5Q4, data reports did not come for three facilities.

⁵ In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two hospitals were added; in Q3, one additional facility was added. Ethiopia GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

⁶ In PY5Q1, 2 community pharmacies were not implementing AMS activities for various underlying issues. One hospital was added to MTaPS and underwent preparatory work before activity implementation began. In PY5Q2–Q4, all facilities have active AMS committees; however, 2 community pharmacies were not able to develop and implement plans due to the nature of AMS activities in a community pharmacy setting. Additional materials are under development to guide the process. For the final year of MTaPS, implementation is scaled down to 6 facilities; refer to Kenya narrative for details of close-out in the previous 18 facilities.

⁷ In PY5Q1, three facilities did not have sufficient time to implement activities. In PY5Q2, MTaPS provided coaching sessions to the previously mentioned facilities, which increased performance; however, two facilities reported competing priorities in implementing AMS activities. In PY6Q1, Point G hospital and Gavardo health center did not implement AMS activities due to competing priorities. MTaPS and the DPM continue to encourage CQI implementation to improve AMS.

⁸ In PY5Q3, four facilities were dropped due to budget constraints. Mozambique GHSA support for IPC activities concluded in June 2023; therefore, Q4 and subsequent data are not reported.

⁹ In PY5Q1, AMS activities experienced delays due to delayed MOH endorsement of trainings. AMS activities continued at the national level through PY5Q2 and Q3; however, implementation of facility-level AMS activities which finally started in July 2023 after approval of the STGs and training materials have continued to experience challenges because of stakeholder support. In PY5Q4, due to budget, AMS trainings were completed in one facility and in PY6Q1 one other facility completed AMS training, however no improvement plans have been created. PY6 activities are a continuation of the PY5 work plan.

¹⁰ Uganda GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

Annex Table 2.5. AS4. Percentage of MTaPS-supported facilities implementing CQI to improve AMS

Quarter	Country												
	Bangladesh ¹	Burkina Faso ²	Cameroon ³	Côte d'Ivoire ⁴	DRC ⁵	Ethiopia ⁶	Kenya ⁷	Mali ⁸	Mozambique ⁹	Nigeria	Senegal ¹⁰	Tanzania ¹¹	Uganda ¹²
PY5Q1	44% (4/9)	100% (10/10)	100% (12/12)	70% (14/20)	100% (12/12)	100% (5/5)	87% (21/24)	81% (13/16)	0% (0/7)	100% (7/7)	N/A	60% (6/10)	100% (7/7)
PY5Q2	44% (4/9)	N/A	100% (12/12)	100% (20/20)	33% (6/12)	100% (7/7)	92% (22/24)	87% (14/16)	0% (0/7)	100% (7/7)	N/A	70% (7/10)	100% (7/7)
PY5Q3	100% (9/9)	N/A	100% (12/12)	95% (19/20)	100% (12/12)	100% (8/8)	92% (22/24)	100% (16/16)	100% (3/3)	100% (7/7)	N/A	100% (10/10)	100% (7/7)
PY5Q4	100% (9/9)	N/A	92% (11/12)	85% (17/20)	100% (12/12)	100% (8/8)	92% (22/24)	100% (16/16)	N/A	100% (7/7)	7% (1/13)	100% (10/10)	100% (7/7)
PY6Q1	N/A	N/A	N/A	100% (20/20)	100% (12/12)	N/A	100% (6/6)	87% (14/16)	N/A	100% (7/7)	50% (2/4)	100% (10/10)	N/A

¹ In PY5Q1, five facilities did not receive supportive supervision or training. In PY5Q2, six facilities received supportive supervision and training. During visits, it was found that facilities were not implementing AMS activities as needed due to a lack of technical expertise and training. The MTaPS team gave strong feedback on AMS activities at each facility at that time. Bangladesh GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

² In PY5Q1, AMS supervision and support were provided to all 10 facilities and activities were implemented. In PY5 Q1, supported facilities implementing CQI, was an activity carried over from the PY4 work plan. Therefore, values are included in PY5 Q1. There was no related activity included in the PY5 or PY6 work plans.

³ PY5Q4 Mbal Mayo Hospital became nonfunctional, as the hospital Director DTC members were transferred to other facilities; thus, a facility was dropped. In PY6, no facility-level AMS activities are planned.

⁴ In PY5Q1, six sites did not receive supportive supervision from the AMS team; thus, information for this indicator was not collected for the facilities. In PY5Q3, San Pedro's AMS committee was not functional. San Pedro got a new CHR, which has led to a suspension of the AMS committee's activities. PY5Q4, data reports did not come for three facilities.

⁵ In PY5Q2, supported facilities provided written reports on AMS activities; CQI activities were not included, and only six facilities received supervision visits to obtain this information.

⁶ In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two hospitals were added; in Q3 an additional facility was added. Ethiopia GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

⁷ In PY5Q1, 2 community pharmacies did not implement AMS activities for various underlying issues. One hospital was added to MTaPS, which underwent preparatory work before activity implementation began. In PY5Q2–Q4, all facilities have active AMS committees, however, 2 community pharmacies were not able to develop and implement plans due to the nature of AMS activities in a community pharmacy setting. Additional materials are under development to guide the process. For the final year of MTaPS, refer to the Kenya narrative for details of closeout in the previous 18 facilities.

⁸ In PY5Q1, three facilities reported that they did not have sufficient time to implement activities. In PY5Q2, MTaPS provided coaching sessions to these facilities, which increased performance; however, Gavardo and Kayes reported competing priorities in implementing AMS activities. In PY6Q1, Point G hospital and Gavardo health center did not implement AMS activities due to competing priorities. MTaPS and DPM continue to encourage CQI implementation to improve AMS.

⁹ AMS site visits delayed for PY5; thus, no facility progress was documented in Q1 and Q2. In PY5Q3, four facilities were dropped due to budget constraints. Mozambique GHSA support for IPC activities concluded in June 2023; therefore, Q4 and subsequent data are not reported.

¹⁰ In PY5Q1, AMS activities experienced delays due to delayed MOH endorsement of trainings. AMS activities continued at the national level through PY5Q2 and Q3; however, implementation of facility-level AMS activities continued to experience challenges because of stakeholder support. In PY5Q4, due to budget, AMS trainings were completed in one facility and CQI implemented. In PY6Q1, one additional facility completed AMS training and implementing CQI.

¹¹ In PY5Q1, four facilities had slow uptake of MTCs for AMS CQI implementation. The Tanzania team conducted supportive supervision for MTCs and AMS CQI activities. Progress has been made in PY5Q2 and Q3 and onward.

¹² Uganda GHSA support for IPC activities concluded in September 2023; therefore, PY6Q1 data are not reported.

PROGRESS ON WHO BENCHMARK ACTIONS (JEE SCORES)

Progress on WHO Benchmark Actions will be provided in the following quarterly report.

ANNEX 3. QUARTERLY COVID-19 INDICATORS, FY24Q1²²

Annex Table 3.1. Number of staff and volunteers trained on COVID-19 vaccine-related topics with MTaPS' support (COV 2. [CVI.3-3.])

Portfolio/ disaggregation	Country	October–December 2023
	Cameroon	N/A
	Côte d'Ivoire	210
Total		210
Sex	Male	30
	Female	8
	Unknown sex	172
Technical area*	Storage, handling, delivery, and waste management of COVID-19 vaccines	210
	Planning and organizing COVID-19 vaccination sessions	0
	AEFI monitoring for COVID-19 vaccination	0
	Recording and monitoring COVID-19 vaccination	0
	Communication with the community about COVID-19 vaccination	0
	Other	0

* Trainees may be recorded under more than one technical area.

Annex Table 3.2. Number of policies, protocols, standards, and guidelines across any of the result areas developed or adapted with MTaPS' support for COVID-19 (COV 7. [CV.2.6-22])

Portfolio/ disaggregation	Country	October–December 2023
	Cameroon	N/A
	Côte d'Ivoire	N/A
	Madagascar	1
Total		1
Technical area	Risk communication and community engagement	0
	Surveillance, rapid response teams, case investigation	0
	Laboratory systems	1
	Case management	0
	IPC	0
	Coordination and operations	0
	Vaccine introduction (incl., PV)	0

²² In Cameroon, COVID-19 activities were implemented that did not correspond to any indicators. The Kenya work plan was approved in January 2024; therefore, no activities were implemented on which data can be reported for PY6 Q1. The Rwanda work plan was approved during PY6 Q1; therefore, no activities were conducted on which data can be reported for PY6 Q1. The Philippines COVID portfolio closed at the end of PY5; therefore, there is no data to report for PY6 Q1. The Tanzania COVID portfolio closed at the end of PY5; therefore, there is no data to report for PY6 Q1.

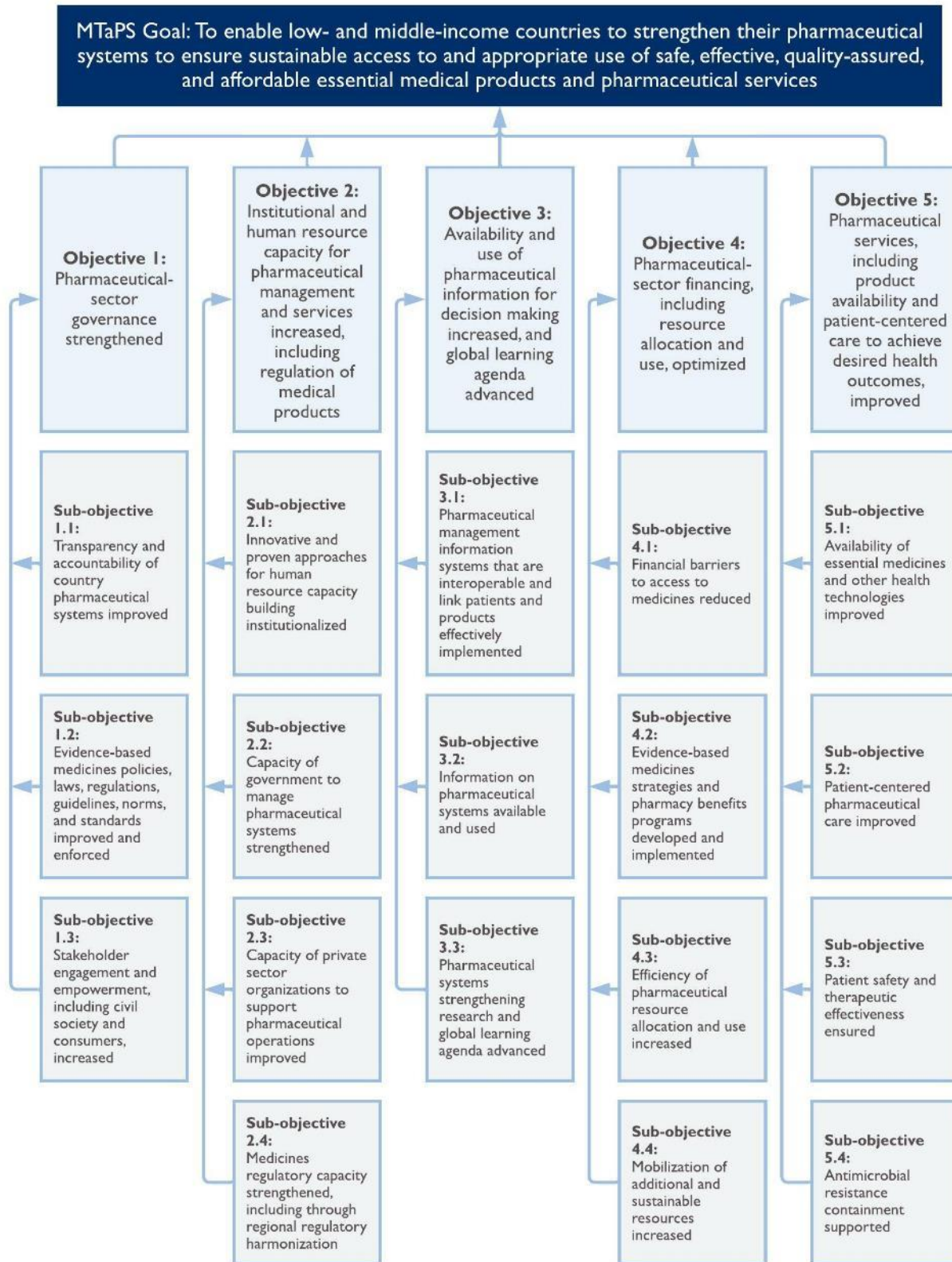
Annex Table 3.3. Number of vaccination sites supported by MTaPS during the reporting period (COV 15 [CV.1.4-5])

Portfolio/ disaggregation	Country	October–December 2023
	Cameroon	N/A
	Côte d'Ivoire	182
Total		182
Type	Fixed site	38
	Community-based outreach vaccination sites	144
	Mobile team (or clinic) or transit team strategy	0
	Mass vaccination sites/campaigns	0

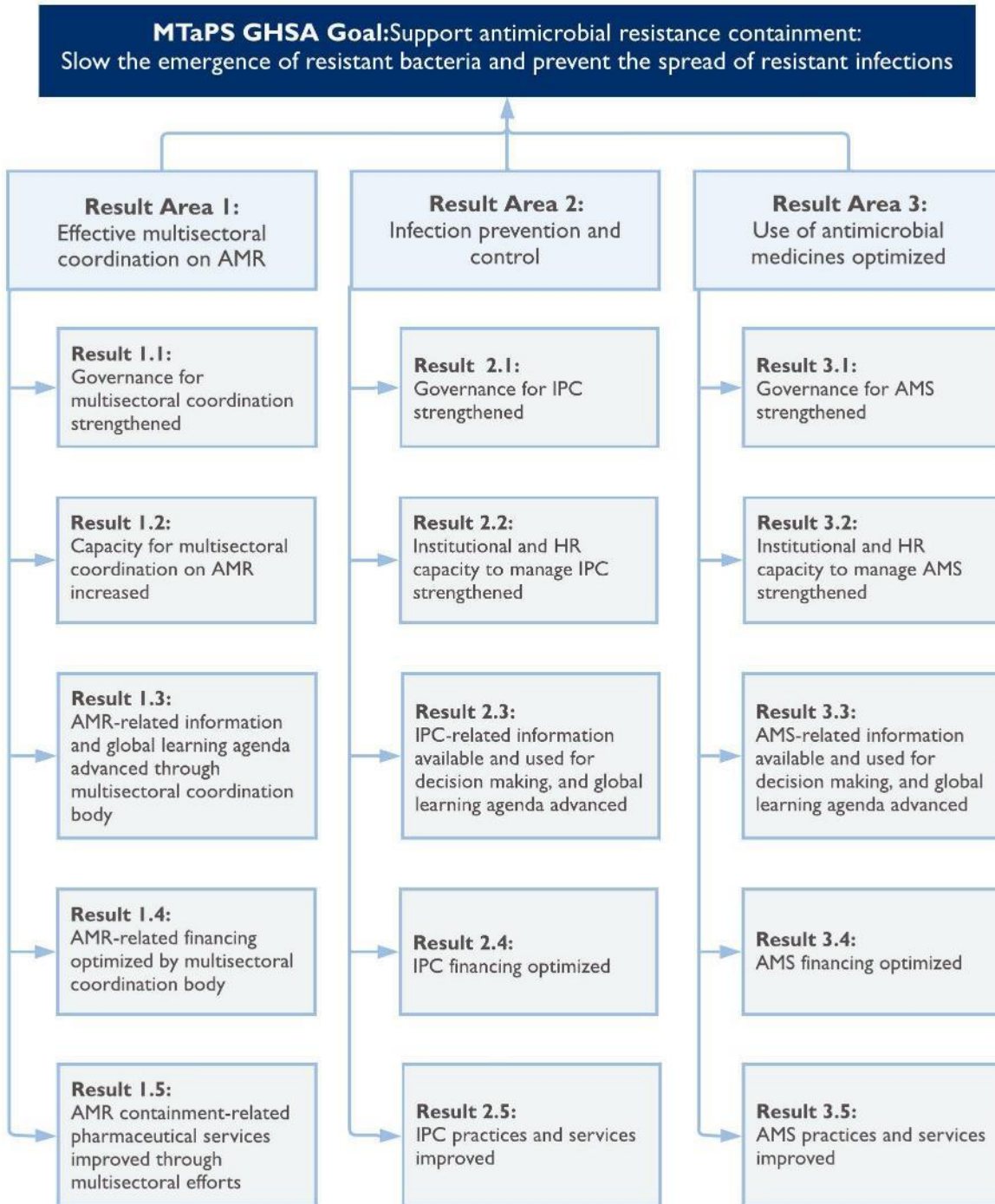
Annex Table 3.4. Number of health workers trained in COVID-19 testing or specimen transport with USG support (CV.2.3-15)

Portfolio/ disaggregation	Country	October–December 2023
	Madagascar	27
Total		27
Sex	Male	14
	Female	13
	Unknown	0

ANNEX 4. MTAPS RESULTS FRAMEWORK



ANNEX 5. GHSA RESULTS FRAMEWORK



ANNEX 6. COVID-19 RESULTS FRAMEWORK

USAID Objective 1: Accelerate widespread and equitable access to and delivery of safe and effective COVID-19 vaccinations

USAID Objective 2: Reduce morbidity and mortality from COVID-19, mitigate transmission, and strengthen health systems, including to prevent, detect, and respond to pandemic threats

Result Area 4: Infection Prevention and Control

Result Area 6: Coordination and Operations

ANNEX 7. MNCH RESULTS FRAMEWORK

