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

Improved Access. Improved Services. Better Health Outcomes.

Photo credit: MTaPS

FISCAL YEAR 2023
QUARTER 2
(JANUARY–MARCH 2023) REPORT

USAID
FROM THE AMERICAN PEOPLE

FISCAL YEAR 2023
QUARTER 2
(JANUARY–MARCH 2023) REPORT

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

TABLE OF CONTENTS

PROJECT OVERVIEW

Program Name:		USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program
Reporting Period:		Fiscal Year 2023 Quarter 2 (January–March 2023)
Activity Start Date and End Date:		September 20, 2018–September 19, 2023
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

Recommended Citation

2023. *USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program: Quarterly Report Fiscal Year 2023 Quarter 2 (January–March 2023).* Submitted to the U.S. Agency for International Development by the USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program. Arlington, VA: Management Sciences for Health, Inc.

USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program
Management Sciences for Health
4301 North Fairfax Drive, Suite 400
Arlington, VA 22203 USA
Telephone: 703.524.6575
Fax: 703.524.7898
Email: mtaps@msh.org

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 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	*Autoridade Nacional Reguladora de Medicamentos, Instituto Público* [National Medicines Regulatory Authority, Public Institute] (Mozambique)
ANEH	National Hospital Evaluation Agency (Mali)
ARC	antimicrobial resistance containment
ART	antiretroviral therapy
ARV	antiretroviral
ARVs	antiretroviral medicines
ASEAN	Association of Southeast Asian Nations
ASM	active safety monitoring
ASO	AMS optimal access and use
ASRAMES	*Association Régionale d'Approvisionnement en Médicaments Essentiels*
AUDA-NEPAD	African Union Development Agency's New Partnership for Africa's Development
AWaRe	Access, Watch and Reserve
BCZ/S	*bureau central de la zone/de santé* [central health zone office] (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); *Centro de Colaboração em Saúde* (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
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	*Direcção Nacional de Assistência médica* [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	*Division Provinciale de la Santé* [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
HO	home office
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	*Institut National de Recherche Biomédicale*
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
MISAU	*Ministério da Saúde* [Ministry of Health] (Mozambique)
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; 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
OIE	World Organization for Animal Health
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
PH	provincial hospital
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	*Programme de Promotion de Soins de Santé Primaires* (DRC)
PQM+	Promoting the Quality of Medicines Plus
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
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
TSC	Technical Sub-committee
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
VAMOHS	Voluntary Access Mechanism for Originator Health Supplies
VSS	vaccine safety surveillance
WAAW	World Antimicrobial Awareness Week
WASH	water, sanitation, and hygiene
WB	World Bank
WHO	World Health Organization
WIMS	Warehouse Inventory Management System

1. INTRODUCTION

A. PURPOSE

Funded by USAID and implemented by a team led by MSH, the purpose of the five-year MTaPS program (2018–2023) 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.

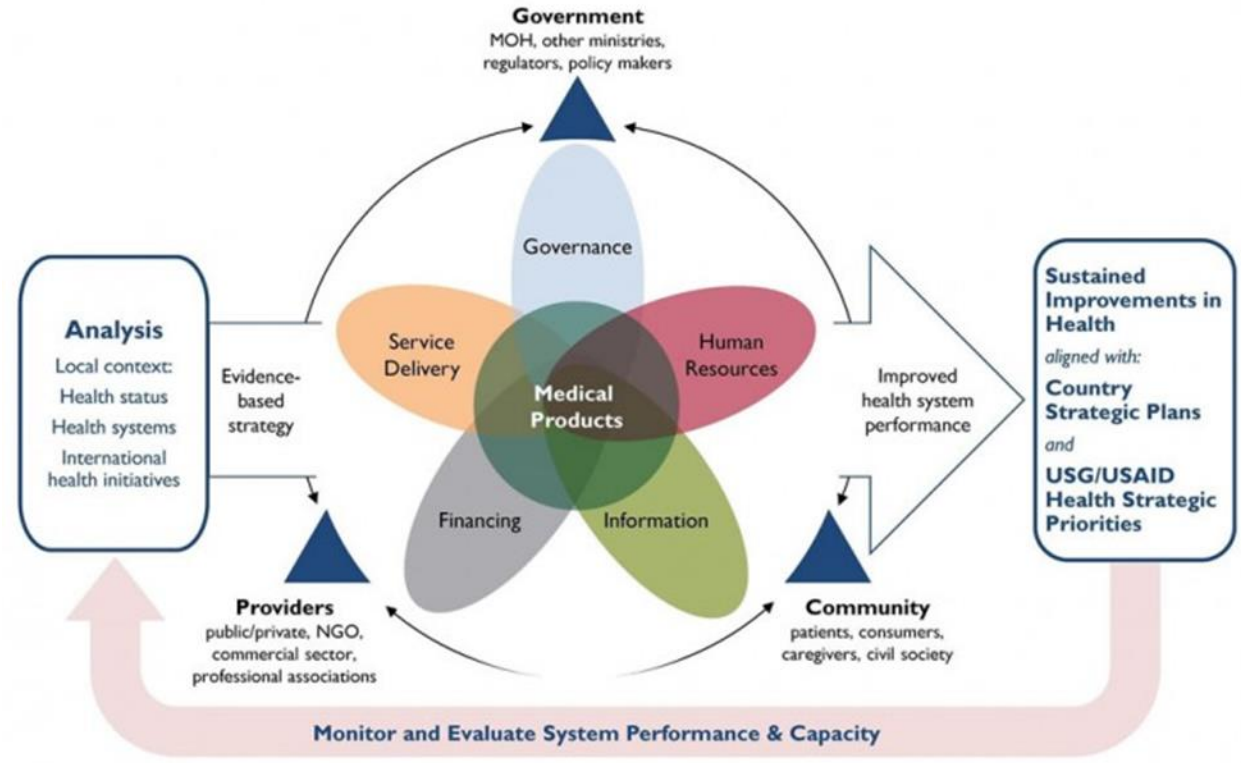


Figure 1. USAID pharmaceutical systems–strengthening approach

D. ABOUT THE REPORT

This report presents activity progress and achievements by portfolio for fiscal year 2023 quarter 2 (January–March 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, 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 Quarter 2, FY23.

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

DRC: The MNCH and FP/RH portfolios of the USAID MTaPS Program contribute to DRC's efforts in achieving the SDGs and the targets for ending preventable child and maternal deaths by providing technical assistance at all levels (DPSs, HZs, health facilities, CDRs, and community organizations). This assistance contributes to building stewardship and technical and managerial capacities, to reduce barriers to access to essential MNCH and FP/RH products and supplies in the North Kivu and Ituri provinces in eastern DRC and to strengthen management of medical products and the pharmaceutical system in general. During previous years (FY20, FY21, and FY22) MTaPS supported the medicines TWGs in Nord Kivu and Ituri to strengthen their stewardship roles. This support was essential for the establishment of a MNCH subgroup with a special focus on MNCH health products, and it resulted in achievements such as the effective use of the national supply chain system by partners for medicines distribution, as well as more effective collaboration with donors and implementing partners (USAID, Global Fund [GF], EU,

[1] Wirtz VJ, Hogerzeil HV, et al. Essential medicines for universal health coverage. The Lancet. 2017. 389(10067):403–476.
[2] WHO. 2013. Good Governance in the Pharmaceutical Sector. Geneva: World Health Organization.

UNICEF, MSH, Cordaid, Caritas, Sanru, ASRAMES, Cadimebu, IMA, Save the Children, UNFPA, MEDAIR, PPSSP, etc.). To date, the medicines TWGs are fully functional and are fulfilling their role of coordinating partner support. Thanks to the TWGs' leadership, action has been taken to ensure the effective redistribution or reallocation of commodities close to expiry and mitigate the risk of waste (the value of commodities at high risk of expiry at the ASRAMES CDR in Nord Kivu was estimated at $179,740.27).

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

Bangladesh: With MTaPS' technical assistance, the MOHFW developed a strategic plan for coordinated procurement including mapping of procurement entities, their practices, and key actions. MTaPS also developed the TOE for health facilities with 10- to 500-bed capacity (tertiary level) and updated its reference prices. The program also updated the full specifications of the medical and surgical requisites (MSR) list and assisted the MSR List Updating Committee to develop a strategy to regularly assign and review standard reference prices to the updated list. The MOHFW has started using a performance indicator measurement table developed with assistance from MTaPS for the procurement oversight bodies at the MOHFW and the DGHS to monitor the performance of the procuring entities using standards indicators that can assess areas for improvements on key procurement functions. Application of these plans and standards will contribute to the availability of quality assets needed for diagnosis and treatment at the health facilities, ultimately improving the quality of health care services.

Jordan: Policies and operating procedures related to supply chain management have been updated and/or developed and are receiving official ministerial reviews and approvals. Clinical protocols for antibiotic prophylaxis and for treatment of priority infections have been produced collaboratively, have received ministerial approval, and have been disseminated to all MOH hospitals beyond those participating in the MTaPS program. AMR awareness is expanding to cover schools across the entire country while building capacities of school health focal points to replicate the activity beyond the program. Medicines availability and use should improve because of these evidence-based improvements.

Nepal: MTaPS supported the updating of new policies, law, regulations, guidelines, procedures, and standards for the Government of Nepal. The progress was because of MTaPS' continued collaborative and advocacy work with the DDA; MOHP senior management; partners; representatives of the Ministry of Law, Justice, and Parliamentary Affairs; and others. After months of an intensive consultative process, the updated NMP and revised Drug Act—with relevant codes, guidelines, and regulations—were developed. The Code on Sale and Distribution (CSD), including GPP and GSDP implementation strategies, are in place, and guidelines and SOPs for the registration of medicines and health technology products (HTP) were updated. These policy, legislative, and regulatory building blocks will enable the DDA to effectively undertake the regulatory work in line with WHO standards and international best regulatory practices for assuring the safety, quality, and efficacy of medicines and other medical products in the country.

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

Mali: At the health facility level, MTaPS supported the DGSHP and the DPM (which are involved in the GCMN-RAM) to establish DTCs and IPC committees in 16 MTaPS-supported health facilities. Following their establishment, the committees developed action plans for locally led improvement of IPC and AMS practices. With MTaPS support, GCMN-RAM and DGSHP have been able to engage in virtual meetings and facility visits to monitor the implementation of activities at the facilities. Engagement of the necessary stakeholders has enabled IPC and AMS practices to improve for the benefit of the people they serve.

Tanzania: To improve IPC implementation and sustainability, MTaPS Tanzania engaged facility-level stakeholders to establish and strengthen IPC committees in 10 MTaPS Tanzania–supported hospitals and conducted clinical mentorship and CQI, which brought about improved WASH and handwashing practices and reduced SSIs and other nosocomial infections. MTaPS Tanzania also supported the MOH to develop the HAI surveillance system with reporting through DHIS 2. All 10 MTaPS Tanzania–supported facilities are now conducting HAI surveillance and reporting to the MOH while using the data for facility IPC improvement.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

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

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

Cameroon: MTaPS supported the DPS to carry out onsite supervision of IPC committees in MTaPS-supported health facilities using IPCAF and HHSAF tools, as part of the CQI process to strengthen the functionality and accountability of IPC committees. MTaPS continued to support the DPML to strengthen governance and functionality of DTCs to continue to implement AMS programs, fostering country ownership and sustainability on these interventions. Each of the 12 supported DTCs had been asked to identify at least 1 data-based improvement or other results-oriented activity either from their existing AMS improvement plan or by proposing a new activity. So far, 7 of the 12 DTCs have submitted a proposal for their planned activities, including a detailed implementation plan. This focus on local accountability and transparency is building CQI approaches that are expected to improve IPC and AMS beyond the life of MTaPS.

Nigeria: MTaPS, in collaboration with the national AMR TWG secretariat, conducted mentoring for IPC teams across 3 supported facilities in Enugu state from March 27 to 31, 2023. The mentoring visits reviewed the program implementation progress of facility IPC teams' and provided them with on-the-job support. Key outcomes of the visit include enhanced implementation of facility IPC improvement plans by the IPC teams and provision of standardized IPC job aids to support IPC implementation at the facilities. In addition, MTaPS supported the national agency for food and drug administration and control (NAFDAC) to train field officers in the north central zone on GSDP of medicines from March 27 to 29, 2023. The workshop included a facility visit component to provide the officers with hands-on mentoring

and skills to improve their capacity on GSDP. Strengthening systems that increase transparency and accountability are expected to improve facility-level pharmacy practice (i.e., SCM and AMS), leading to improved medicines quality and use.

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

Evidence-based medicines policies, laws, regulations, and guidelines form the foundations for the appropriate functioning of pharmaceutical systems. The following examples demonstrate the variety of areas within the pharmaceutical system where these are necessary and reference to the IT systems needed to efficiently operationalize regulatory system governance.

Ethiopia: Recognizing MTaPS' experience in supporting the revision of STG and EML, the Ethiopian Food and Drug Authority (EFDA) requested technical assistance from MTaPS on the revision of the second edition of the Ethiopian Medicines Formulary (EMF), which was previously updated in 2013. MTaPS served as a member of the task force established by the EFDA to oversee the revision process. The task force had two meetings on January 11 and February 20–24, 2023, attended by 13 (10 male, 3 female) and 14 members (11 male, 3 female) respectively. So far, the task force has designed the outline and developed a mapping tool to determine the list of medicines for inclusion, modification, or deletion from the old EMF. The revised EMF will enable health care providers at all levels to have access to quick and unbiased information on medicines and improve the evidence-based prescribing, dispensing, and use of antimicrobials.

Kenya: MTaPS, in collaboration with the MOH and other partners, supported the review of the NAP on AMR and its M&E framework. This support included the costing of the NAP-AMR activities and development of new M&E indicators to monitor the implementation of the next iteration of the NAP-AMR 2023–2027. In addition, MTaPS finalized the first KNMF (started in 2019), whose launch is now being planned for next quarter. This included two Kenya Essential Medicines List (KEML) review planning meetings held on January 26 and February 3, 2023, through which a scope of work was defined, a road map for the review was developed, and timelines were agreed upon. The NAP on AMR and KNMF provide national foundational documents to guide medicines availability and use for the people of Kenya.

Rwanda: MTaPS continued to support the Rwanda FDA in the implementation of IRIMS to digitalize its core functions, enabling more efficient implementation and enforcement of the pharmaceutical system standards needed for medicines regulation. MTaPS' support enabled the delivery, configuration, and deployment of three servers to host IRIMS at the National Data Center. For the addition of a flexible, secure multichannel payment mechanism for local and international users, integration of IRIMS with the Irembo payment gateway was completed.

Nepal: MTaPS supported the DDA in updating the Drug and Health Product bill; the final version is still under review by the Nepal Law Commission. In coordination with the DDA, MTaPS drafted three regulations and codes needed for implementation of the bill, i.e., Drug and Health Products Registration Regulation, Inspection and Investigation Regulation, and Drug and Health Product Consultative Council and Advisory Committee Regulation. The Drug and Health Product Standard Regulation is still being drafted. The DDA also needs to submit the final version of the CSD to the MOHP for approval. MTaPS

drafted a situational analysis on pharmaceutical products price regulation based on stakeholder consultations and literature review on medicines prices in Nepal. The analysis findings were presented to DDA and WHO experts for their review and input. Based on international best practices, MTaPS and the DDA will draft options for regulating prices of medicines and HTPs to ensure affordability of and therefore access to medicines. MTaPS assisted the DDA to revise and update the Nepal NMP, and in collaboration with DDA, it prepared an indicator-based implementation and monitoring plan for the NMP, which is currently awaiting final review before being forwarded to the MOHP for finalization. The planned meeting was postponed awaiting the appointment of a new Minister at the MOHP. Having a revised NMP is essential for UHC, and it will help people to get safe, effective, and quality-assured medicines.

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

Engaging a full range of stakeholders, including civil society, is vital for agreement and implementation of pharmaceutical systems improvements and reforms. For this quarter we share examples from GHSA partner countries demonstrating stakeholder engagement requirements at national and facility levels.

Kenya: MTaPS in collaboration with the MOH's Division of Patient and Health Worker Safety (DPHWS) and the county governments of Nyeri and Kisumu supported the ongoing pilot of the implementation of the reporting system and tools for the National IPC M&E Framework (2022). In addition, with support from MTaPS, the National Infection Prevention and Control Advisory Committee (NIPCAC) conducted its quarterly meeting. MTaPS, in collaboration with the county governments of Kisumu, Kilifi, Nyeri and Murang'a, conducted county engagements and facility IPC support supervision and mentorship, focusing on governance, status of implementation of IPC CQI action plans, and monitoring of these plans at county and facility levels. The engagement included consultative meetings with the County Health Management Teams (CHMT) and quarterly review meetings with the CIPCACs, facility management, and facility IPC committees.

Senegal: On March 9, 2023, MTaPS provided technical support to the One Health AMR multisectoral TWG to validate the TORs, the road map, and the composition of the multisectoral technical committee for the development of the new NAP for Health Security. A workshop is planned for April 6 with the AMR TWG to validate the road map and the committee in charge of elaborating the first draft of the NAP-AMR 2023–2027.

Tanzania: MTaPS Tanzania supported the MOH from February 6 to 10, 2023, to review the 2017 IPC communication strategy, which was subsequently shared to stakeholders for inputs. The strategy has a set of nationally approved messages to harmonize dissemination of IPC information and for ease of communication among stakeholders in IPC, which are expected to improve efficiency in IPC implementation and promote effective behavior change communication related to IPC.

BEST PRACTICES/LESSONS LEARNED

- The involvement of key stakeholders in developing national plans, e.g., NAP-AMR M&E plans, strengthens their level of ownership. *(Côte d'Ivoire experience)*

- To avoid duplication and to leverage resources, strong collaboration with donors and NGOs is essential when planning facility-based interventions, coordinating medicines availability assessments, and facilitating the development of pharmaceutical governance national standards. *(Experience from Burkina Faso, DRC, and Jordan)*
- When changes occur in government staffing/AMR focal points, it is important to invest time to ensure continuing alignment between government priorities and MTaPS' work plan to avoid delays in implementation. *(Experience from Mozambique)*

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 the MTaPS program. Sustainable pharmaceutical systems require more than just training. MTaPS focuses on capacity strengthening, ensuring that the range of activities the program is involved in produce a legacy in areas such as but not limited to the following: working pharmaceutical systems are self-sustaining, e-Learning materials are integrated into the learning system of ministries for ongoing use, and digital solutions are seamlessly embedded into the workflows of pharmaceutical systems. MTaPS' aim is to enable mature pharmaceutical systems in countries, leaving the responsibility of these systems in the hands of local counterparts.

CUMULATIVE PERFORMANCE TO DATE

This section documents progress in selected MTaPS program institutional and human resource capacity-building activities from the start of the project to demonstrate improvements through the application of MTaPS' pharmaceutical system–strengthening approach.

Institutional capacity building 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. 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**, **DRC**, **Kenya**, **Mali**, **Mozambique**, **Nepal**, **Philippines**, **Rwanda**, and **Tanzania** to strengthen regulatory systems by implementing QMS for efficient delivery of regulatory services and to streamline and improve registration systems through capacity building by imparting principles of good review practices and the use of electronic information management systems.

MTaPS worked with several continental and regional organizations (e.g., ASEAN, EAC, IGAD, SADC, SEARN) to support convergence and harmonization of medical product regulation in PV, regulatory inspections, and regulatory information management systems. MTaPS offered technical assistance to validate and use the regional centers of regulatory excellence M&E tool to measure the performance of

11 designated centers. This tool produced baseline information on the status of the institutions and organizations that provide capacity development in medicine regulation.

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, multiyear, and context specific. The following Kenyan example demonstrates this approach:

Kenya: MTaPS AMS interventions in Kenya has focused on strengthening AMS governance structures at the national level and in the focus counties and HFs, review of the Kenya Essential Medicines List (KEML) to incorporate the AWaRe categorization of antibiotics, development and dissemination of the national AMS guidelines, development and dissemination of regulatory guidance to HCWs and the general public on optimal use of antimicrobials, development and implementation of the AMS curricular at pre-service and in-service levels, training of HCWs on AMS, and monitoring implementation of AMS activities using a CQI approach in the focus counties and HFs.

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

MTaPS is active in a variety of pharmaceutical systems areas. In this quarterly report, Ethiopia stands as an example of how MTaPS-related support over the life of the project has worked to improve the government's ability to manage IPC and emergency response to COVID-19.

Ethiopia*:* MTaPS supported the revision of the IPC reference manual and IPC training materials and built the capacity of IPC focal persons at the national, regional, and facility levels by providing training to 2,712 HCPs. MTaPS also supported the MOH in identifying gaps in the national IPC program using the WHO's national IPCAT2 and designing a central-level IPC improvement plan. MTaPS also provided technical support to HFs to improve their IPC performance using the WHO IPCAF tool. An initial group of 21 hospitals conducted IPCAF self-assessments with support from MTaPS. A later assessment conducted at 4 of the hospitals showed substantial improvement in their IPCAF score. In PY5, MTaPS contributed to the development of HAI surveillance system technical guidance documents and the establishment of IPC COEs at selected HFs in collaboration with the MOH and the International Center for AIDS Care and Treatment Programs (ICAP). MTaPS' support contributed to improving Ethiopia's progress toward achieving higher JEE scores in IPC.

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, with this example from Ethiopia showing engagement with private sector to increase AMR awareness.

Ethiopia*:* In PY5, MTaPS engaged with various civil society organizations, including the women's federation and youth federations, for an AMR awareness and sensitization forum. In addition, to increase multisectoral stakeholder engagement in implementing the NAP-AMR, the sector-specific AMR action plan for the human health, animal health, and environment sectors developed with MTaPS' support was officially launched during WAAW 2022, where the pharmaceutical private sector was also present.

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

MTaPS has been supporting strengthening of regulatory systems in countries as part of the effort to improve access to safe, quality assured and efficacious medical products. Using the WHO Global benchmarking tool and the corresponding Institutional Development Plan, technical assistance was provided to address gaps and raise the regulatory capacity maturity level (ML) to acceptable levels.

In **Nepal**, MTaPS continued to hold regular update meetings with the DDA, WHO, and PQM+ and provided support to increase the DDA's regulatory capacity ML. As of this quarter, 73% of the recommendations linked to ML 1 indicators and 62% of ML 2 indicators have been drafted by MTaPS and are awaiting approval from the government. The institutional development plan for health technology products developed by WHO was integrated into the DDA's maturity level action plan (MALAP). This integration provides one development document that encompasses all the plans for increasing the ML for regulation of medicines, vaccines, and medical devices. It will also be used to track the progress being made toward the maturity of the functional areas without duplications or overlap of activities.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

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

This quarter we highlight innovation in the form of AMR awareness activities in medical education (Burkina Faso) and orientation of hospitals to learning management systems for the ongoing use of e-Learning materials (Mali).

Burkina Faso*:* MTaPS supported the OHP and the RUA subcommission to carry out a sensitization workshop on RUA for 89 students (51 male and 38 female) in their 6th and final year of studies in medicine and pharmacy at Nazi Boni University of Bobo-Dioulasso. The workshop was intended to inform these students about the correct use of antibiotics, as they are on the front line of prescribing in teaching hospitals and will serve as the country's future practitioners and prescribers after graduation. Conducted under the leadership of Pr. Armel Poda, the president of the AMR TTC, this workshop was organized as part of the country's annual celebration of WAAW, normally scheduled each year in November.

Mali*:* In March, MTaPS supported the Faculty of Medicine and Odonto-Stomatology (FMOS) to organize an orientation on MTaPS-developed e-Learning courses (IPC, IPC/COVID-19, and AMS). Orientation workshops were organized in each hospital (Point G Hospital; Mère-Enfant Hospital ["Le Luxembourg"]; Gabriel Touré Hospital; Bamako Dermatological Hospital; Mali Gavardo Hospital; and Kati Hospital) in Bamako and Koulikoro (5 hospitals from the public sector and 2 from the private sector). A total of 131 health workers (physicians, pharmacists, biologists, medical assistants, midwives, nurses, administrators, and social service workers) including 54 women (41%) from 7 hospitals attended these workshops. Participants are now able to provide access to e-Learning for health workers in their home facilities, improving the use of antibiotics and IPC practices.

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

Improving a government's ability to manage aspects of their pharmaceutical systems is incremental. In this quarter, we highlight HTA systems improvement in Indonesia.

Indonesia: MTaPS assisted Pusjak PDK and InaHTAC in one round of the process to select HTA topics for 2023. The process included a literature review, gathering opinions from stakeholders, presenting recommendations and redefining assessment criteria, designing an assessment tool and weighted HTA topics, inviting stakeholders to submit HTA topics, verification, deliberation, and dissemination of topic selection results.

InaHTAC selected three of the five HTA study topics for 2023, namely Bevagen drug, which is a biosimilar to recombinant humanized anti-vascular endothelial growth factor (VEGF) monoclonal antibody bevacizumab, which is used to treat certain types of cancer and eye diseases; Abiraterone Acetate, a drug used to treat prostate cancer; and Pembrolizumab, which is a type of cancer immunotherapy drug known as a monoclonal antibody. As Indonesia increases its HTA capacity, it is gaining the ability to systematically assess medical products and technologies on their safety, efficacy, and cost, allowing evidence-based use of finite health resources.

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

Nepal: The CSD, with MTaPS support, finalized the contents of the capacity-strengthening package for hospital pharmacists, and planning for the provincial-level training sessions is under way, including in private-sector facilities. The team also provided technical information about the AMR context in Nepal and MTaPS AMR containment activities to a group of journalists from the Lancet, *Frankfurter Allgemeine Sonntagszeitung*, Deutsche Welle, and German and Austrian public radio. This has contributed to raising Nepal's AMR issues in international journalism platforms. Additionally, during the quarter, scopes of work were developed and advertised on the MTaPS job portal for two consultants, who will be helping with the AMR-related sensitization of media personnel in the various provinces of Nepal.

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

During Quarter 2 PY5, MTaPS continued to provide technical assistance to increase the regulatory capacity in several countries in Africa and Asia, focusing on specific regulatory functions, including product registration, licensing of establishments, and promoting convergence of medical products regulation.

In **Bangladesh**, MTaPS continued to provide technical assistance in developing and implementing the CAPA plan in selected functions as per the WHO's formal assessment report. This will enable the DGDA to contribute to increasing score on WHO GBT assessment with an aim of reaching ML 3, where an NRA is considered stable and functional. MTaPS is supporting the implementation of OpenRIMS platform (https://dgda.openrims.org), and the workflow of the application submission segment of DGDA-RIMS was presented and was well accepted by marketing authorization holders (MAHs). Similarly, the WHO accepted the business process of the marketing authorization function

reflected on the platform. This is expected to improve the efficiency and effectiveness of the regulatory system and enhance compliance levels and allow the DGDA to effectively undertake its regulatory mandate through increasing score on WHO GBT to attain ML 3.

MTaPS facilitated a Medicines Dossier Assessment Retreat in **Rwanda** during Quarter 2 PY5 which helped to reduce the backlog of pending applications and will expedite regulatory processes for granting MA. Of the 300 pending applications, 292 underwent the first screening, and 258 completed the first assessment. Of these, 257 completed the second assessment. Although only 70 applications were recommended for peer review, the retreat helped to address the gap with indicator MA04.01 noted in the December 2022 GBT assessment.

For **Nepal**, MTaPS, in collaboration with the DDA, is working to strengthen GPP and GSDP. Implementation of the multipronged strategy to strengthen GPP and GSDP progressed well, focused on capacity building followed by implementation assessment. The GPP and GSDP e-Learning modules were finalized in Nepali and English and will be uploaded to the DDA website once approved by the National Information Technology Center. Vendors have been selected to implement the training and certification assessment on GPP and GSDP. MTaPS assisted the DDA in developing a QMS, and the QMS manual was signed by the DDA Director General, which has cleared the way toward ISO certification as part of a mature regulatory system. MTaPS has contracted a vendor for development and implementation of a QMS document management system that will help the DDA to properly track documents.

Working with **ASEAN**, MTaPS provided technical assistance to member states to institutionalize regulatory processes and best practices in registration of medical products by facilitating a regional training course on good review practices (GRevP) for dossier evaluation process for the Association of Southeast Asian Nations (ASEAN) member states. The course was conducted from January 16 to 18, 2023, and was attended by Indonesia, Thailand, Malaysia, Myanmar, Vietnam, Laos, Brunei, and the Philippines. In total, there were approximately 15 (9 female, 6 male) participants at the course. The objective of the course was to improve knowledge on the essential principles of WHO guidance on GRevPs and application of the guidelines in the ASEAN nations. The participants were able to apply the principles of collaborative assessment of essential medicines in order to increase availability of quality, safe, and effective medicines within their territories and in the region at large.

BEST PRACTICES/LESSONS LEARNED

Reliance and abridged procedures are types of regulatory pathways that enable more efficient evaluation of medicines and medical products. By relying on data from previously assessed products or using a streamlined assessment process, Rwanda FDA and ASEAN member states are now in a position to reduce the time and resources required to evaluate new products.

Continued collaboration with health private-sector professional associations to deliver CPD provides a sustainable pathway for ongoing pharmaceutical systems in-service training. In Kenya and Tanzania, MTaPS has been able to make IPC and AMS training available this way.

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

The MTaPS program's overall strategic approach is to support governing bodies in using evidence-based interventions and tested approaches to strengthen the pharmaceutical system. MTaPS provides technical assistance to public health ministries to build institutionalized and sustainable capacity, which is critical to achieving UHC and SDGs.

CUMULATIVE PERFORMANCE TO DATE

SUB-OBJECTIVE 3.1: INTEROPERABILITY OF PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS THAT LINK PATIENTS AND PRODUCTS

Bangladesh

MTaPS Bangladesh performed enhancements to the existing electronic supply management systems, including eLMIS, WIMS, and UIMS. Also, MTaPS Bangladesh introduced the electronic asset management system (eAMS) in all 62 district hospitals across the country and established e-TB Manager as the digital platform to capture individual TB patient information and management. e-TB manager is running and functional nationwide on all 868 sites, interoperable with the Janao App for capturing information of TB patients treated at private centers, thereby increasing the network and data visibility. MTaPS supported DGDA to start development of the DGDA regulatory information system based on the SOP for registration (NRA-MA-013).

Nepal

In Nepal, MTaPS is supporting the DDA to introduce a new regulatory information management system using OpenRIMS platform. The system will increase efficiency and data use at DDA. MTaPS successfully demonstrated the system to DDA's senior management, showing how it would facilitate registering and tracking the country's nearly 30,000 pharmacies and 4,000 pharmaceutical wholesalers and importers.

Mozambique

MTaPS Mozambique and the DNF/ANARME achieved key agreements to implement the online version of the regulatory information management system software, OpenRIMS. MTaPS has started configuring the system to follow the common technical document (CTD) format for evaluation of MA dossiers in the product registration process.

Rwanda

MTaPS supported the requirements for gathering, customization, testing, and deployment of an IRIMS in Rwanda. The system was initially deployed into a staging/testing environment, where it supported user training and preparation for the WHO GBT assessment.

Philippines

MTaPS Philippines supported the upgrade of PViMS to version 2 and trained 197 programmatic management of drug-resistant TB facilities to ensure patient safety related to drug-resistant TB treatments. MTaPS also facilitated a meeting between the PD, KMITS, and NTP to align priorities and discuss interoperability requirements between PViMS and the Integrated Tuberculosis Information System. MTaPS procured a vendor for the eLMIS platform and supported the DOH in developing user requirements, an implementation plan, and system customization; capacity building through creating a pool of trainers; conducting site readiness; and configuring and rolling out the eLMIS into 34 warehouses where the system is currently functioning.

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

Bangladesh

MTaPS Bangladesh performed enhancements of the eLMIS, WIMS, and UIMS. The enhancements made utilization of data for analysis possible and enabled the DGFP to save U$ 9.6 million by reducing the unnecessary procurement of FP injectable commodities by 20 million units during FY2021–22. MTaPS also supported the CMSD to develop the Inventory Tool Management Committee, which managed to reform 3 sub-stores to 6 sub-stores based on product group.

Rwanda

MTaPS Rwanda supported Rwanda FDA to adopt the PViMS for spontaneous reporting of ADEs, including COVID-19 vaccine AEFIs, and subsequently for active safety monitoring of DTG-based antiretroviral therapy (ART) regimens.

Philippines

MTaPS supported the DOH to roll out PViMS for active surveillance of TB and PMDT facilities in 17 regions and managed to improve the quality of AE reports prior to causality assessment. MTaPS also supported the establishment of interoperability between PViMS and the FDA's Vigiflow.

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.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

SUB-OBJECTIVE 3.1: INTEROPERABILITY OF PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS THAT LINK PATIENTS AND PRODUCTS

Bangladesh

MTaPS facilitated a technical training session for DGFP staff on supply chain management and system troubleshooting. The training is part of the tasks for the transitioning of the inventory management system and will ensure DGFP has staff with the necessary skills for data analysis and commodities management to drive informed decision making.

To ensure smooth transition of the eAMS system, MTaPS facilitated a two-day TOT for elected officials from the DGHS MIS unit. MTaPS also conducted a review of transition challenges and risks for the eAMS and managed to prepare mitigation strategies outlining required actions and their respective implementation deadlines. The list will be monitored as the system transition progresses.

MTaPS continued to support scaling up of the eLMIS for TB commodities system in collaboration with NTP, where 15 training sessions were conducted in the Chattogram division. Currently, the system is in use at 317 upazilas out of 484.

MTaPS supported the DGDA to continue strengthening their regulatory information system and complying with WHO GBT assessment recommendations through performing configuration of the DGDA-RIMS. MTaPS implemented workflows related to MA based on the SOPs. The workflow for the application submission segment of DGDA-RIMS was demonstrated and well accepted by MA holders (MAH) and the WHO during their review conducted in March 2023.

Philippines

MTaPS continued to support the DOH to develop the eLMIS governance by establishing roles and responsibilities for organs related to the system. Two high-level committees were proposed in a draft eLMIS governance structure:

1. eLMIS Implementation Steering Committee: will focus on leadership and oversight; policy issuance and setting standards
2. eLMIS Implementation Execution Committee: will focus on technical activities for the execution of rollout plan

In addition, MTaPS continued to support the DOH to roll out eLMIS in 19 warehouses within 12 CHDs, reaching 34 total warehouses operating the system. MTaPS also developed eLMIS transition plan to guide the DOH to sustainably own and implement eLMIS throughout the country. The plan was presented in the eLMIS Consultative Workshop organized by DOH and WHO that brought together different stakeholders, including implementing partners. To enable eLMIS sustainability, MTaPS established the system support structure for level 1 and level 2 mechanisms. MTaPS, in collaboration with KMITS and local IT vendor Bileeta, finalized the Privacy Impact Assessment (PIA) for eLMIS in compliance with the country's Data Privacy Act. The PIA is one of the requirements of the DOH for the issuance of the official system acceptance. In addition, KMITS, in collaboration with MTaPS, conducted a

vulnerability assessment of the system to ensure system security; all the issues observed are now being addressed by Bileeta.

Rwanda

MTaPS continued to support the Rwanda FDA in the implementation of IRIMS to automate regulatory functions. Hosting infrastructure is deployed and configured in the Rwanda national data center, with a backup site at Rwanda FDA offices. The system is integrated with key Rwanda government systems, such as the Rwanda payment gateway (Irembo), to allow a flexible, secure, multichannel payment mechanism for local and international users. The system is now running at the Rwanda national data center, and it is expected to go live in April 2023.

Nepal

MTaPS supported the DDA to finalize the configuration of OpenRIMS modules on product registration and manufacturer registration. The system is ready for UAT. MTaPS also hired an international consultant to assist in the development of the remaining inspection and import modules. A process to hire eight help desk consultants to support operations and system implementation at the central and three DDA branch offices is progressing well.

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

Bangladesh

MTaPS continued to support the institutionalization of eAMS use at the district hospitals. A total of 834 assets were captured into the system making a total number of assets recorded in the system reaching 8,977. The information in the eAMS has been critical in data use to facilitate decision making through enabling analysis and facilitating procurement planning.

MTaPS facilitated a demonstration of the PViMS to the DGDA. The audience appreciated the demonstration and provided valuable feedback for improving the system before conducting a UAT. Also, during the quarter MTaPS provided support to conduct one ADR monitoring (294 AE and 78 aDSM reports), one technical subcommittee (TSC) meeting (18 AE and 5 aDSM reports) and one ADRAC (18 AE and 5 aDSM reports) workshops to evaluate reports received during October–December 2022.

Philippines

MTaPS supported the development of data analysis tools and training materials. In collaboration with the DOH and other stakeholders, MTaPS collected and analyzed contraceptive data. The results of CYP for the period of July 2021–June 2022 were disseminated and show the national CYP for 2021–2022 has increased by 6% compared with 2020–2021.

MTaPS implemented PViMS, and the system is used to monitor the safety of patients receiving drug-resistant TB treatment by facilitating recording, reporting, and analysis. The DOH-PD received a total number of 569 reports for aDSM. About 569 reports, equivalent to 33.22%, were possible AEs, 5.98% were probable AEs, 34.27% was not assessable, and 26.54% were unlikely AEs.

Mozambique

MTaPS provided technical assistance to ANARME by facilitating training to support scale-up of PViMS. The training course included the overall system functions on data collection and use. Seven key participants were trained from three sites, and they have started using the system for data collection.

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

- When internal and external users are adequately trained, digitalization of NRA processes contribute to improved performance and customer satisfaction. This was observed both in IRIMS implementation in Rwanda and in OpenRIMS in Bangladesh.
- Establishment of large national-level pharmaceutical information management systems requires an extensive coordinated approach, guided by an effective governance structure that clearly outlines roles and responsibilities of all stakeholders. This approach was observed in all the countries where MTaPS is implementing IMS.
- Effective transition planning for large systems needs to start from the inception stage and rely on best practices such as the principles for digital development.[3] The experience from developing transition plans for e-TB Manager system in Bangladesh and eLMIS in the Philippines demonstrates this important learning and application.
- Emerging technologies, i.e., GraphQL are giving more flexibility and simplify interoperability for health information exchange among key systems in countries, regional and global levels.[4] The enhancement made on OpenRIMS to support GraphQL has made the system more easily interoperable with a wide range of systems. This was observed in all the countries where MTaPS is implementing OpenRIMS.

[3] https://digitalprinciples.org/
[4] https://graphql.org/

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 stock-outs 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 pharmaceutical expenditure (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. Promoting the use of generics and competitive markets could lower prices and increase access for vulnerable populations.

In **Asia**, MTaPS developed a report on the landscape analysis of country-level pricing policies and available pricing databases for pharmaceuticals in Asia region 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 pharmaceuticals purchase prices and negotiation of the best value. MTaPS published a blog in November 2022 on Pharmaceutical Pricing Policies. Following the recommendation of the WHO, countries should apply policies that control the margins or maximum markups throughout the supply chain. Building a regional database of prices can guide governments in benchmarking their prices to pursue internal or external reference pricing policies.

In **Nepal**, MTaPS supported the development of an evidence-based policy on a price control mechanism for pharmaceutical products. Three DDA staff participated in the WHO online Summer School Pharmaceutical Pricing and Reimbursement Policies course in 2021 in preparation for the regulatory revision aiming to reduce out-of-pocket expenditures. 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 prepared a preliminary report on pharmaceutical pricing regulations in Nepal.

In **Mozambique**, MTaPS supported the DNF/ANARME 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 to control product price mark-ups in the pharmaceutical sector to stop excessive charging of medicines as they move through the supply chain, hence stimulating wider availability of and access to medicines and other health products.

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 to identify health interventions to be included in—or removed from—the benefits package and EML for national health insurance programs. 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 October 2020, more than 200 participants attended the road map launch webinar, which included a 5-member panel discussion with HTA program leaders from Colombia, Kenya, South Africa, Taiwan, and Ukraine.

In **Asia**, MTaPS supported the Indonesian MOH in organizing, synthesizing, and documenting the 9th HTAsiaLink Virtual Conference from October 11 to 13, 2021. The MTaPS-led pre-conference workshop drew 220 participants. 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 (IJTAHC) in July 2022. MTaPS presented 2 abstracts and received an award at the 10th HTAsiaLink Virtual Conference in November 2022.

In **Indonesia**, MTaPS is supporting the MOH to redefine the criteria for selecting HTA topics, from eight overlapping and unclear criteria to six criteria (volume, impact of technology on health, cost technology, compliance with policy priorities, potential cost savings, and social acceptance). MTaPS also facilitated an MCDA workshop to define a statistical weight for these criteria. InaHTAC accepted the new criteria for its measurable indicators and non-redundancy. To roll out the new changes, MTaPS developed digital forms for HTA topic nomination for stakeholders and supported the call for a topic-

launching event. MTaPS' key principles in HTA topic selection were incorporated into the revised Indonesian HTA guidelines co-developed with the World Bank, InaHTAC, and Pusjak PDK. Following the revamp of HTA topic selection criteria in Indonesia, MTaPS supported the first rollout of the call for topics, and 41 HTA topics were received—twice as many as in the previous year.

In **Ethiopia**, under Cross Bureau funding, MTaPS developed a manuscript detailing 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, with support from the in-country consultant CREATE, developed a document outlining options for setting up an HTA agency in the Ethiopian context. MTaPS wrote a manuscript entitled "Institutionalizing Health Technology Assessment in Ethiopia: Seizing the Window of Opportunity." MTaPS shared the draft with USAID and MOH officials and submitted it to IJTAHC in December 2022.

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 benefits 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 on 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 benefits packages using the OHT.

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 developed expenditure tracking procedures to continue supporting the HEU to conduct PE for MNCH commodities.

In **Indonesia**, MTaPS conducted a systemwide landscaping of existing and potential PE data sources and produced a summary brief. MTaPS also collaborated with the Indonesian Health Account team to compile existing PE data from available national sources.

To support **MTaPS 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. These activities feed into the MTaPS-adapted Harvard/COVAX costing model to estimate the cost of delivering COVID-19 vaccines under various scenarios. MTaPS compared its findings with other studies and led two large presentations with major stakeholders at the USAID-UNICEF-led Funders Forum and with the USAID COVID-19 Task

Force Leadership. MTaPS also presented the work at the Health Systems Research Conference in Bogota, Colombia, in November 2022.

In **Malawi**, MTaPS collected vaccine delivery expenditure data in 4 districts through surveys and interviews in the national offices and 20 facilities.

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

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

In **Bangladesh**, in Year 2, MTaPS assisted the National TB Program 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 analyzed the procurement legal and policy environment to identify gaps and provisions to develop feasible models to introduce and pilot a mechanism for pooling demands from multiple procurement entities.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

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

In **Nepal**, MTaPS continues to plan discussions on the principles for price regulation with stakeholders at the end of May 2023.

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

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. The draft report was shared with key informant interviews for feedback.

In **Indonesia**, MTaPS conducted a three-day in-person stakeholder meeting from March 16 to 18, 2023. At this meeting, stakeholders discussed key issues on the operations of the HTA topic selection process and agreed upon proposed next steps. A draft HTA topics selection operational manual is planned for April 2023. At this meeting, MTaPS also organized a capacity-building session with HTA researchers from the MOH and Universitas Gadjah Mada (UGM) 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" received a revision decision by IJTAHC. MTaPS submitted a revised version to the journal in March 2023.

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

In **Asia**, responding to expressed interest in applying the OHT for costing its pharmaceutical benefits coverage in Bangladesh, MTaPS onboarded local consultants to support costing of the 25 prioritized interventions within the Bangladesh benefits package.

In **Indonesia**, MTaPS has prepared a draft final report on the implementation of the 2022 PE tracking. MTaPS facilitated a meeting between the Pusjak PDK and the Directorate of Pharmaceutical Production and Distribution (Prodisfar) on future management of data for the PE tracking, including data cleaning, validation, mapping, and analysis, as well as the need for a PE Tracking Team Decree.

In supporting the USAID COVID-19 global activity, MTaPS started the planning for the third global survey, exploring countries' delivery of COVID-19 vaccines. The third global survey will also focus on subpopulations and integration. In Malawi, MTaPS is working on cleaning and analyzing the COVID-19 costing data in four districts.

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

In the **Philippines**, the Department of Budget and Management has approved the multiyear contracting authority (MYCA) of the DOH for the procurement of TB commodities. Through MTaPS' advocacy, the DOH chose a framework agreement mechanism to procure those MYCA-approved TB commodities. MTaPS also mapped the FA procurement process and related activities to support its implementation. Enabling the MYCA and selecting a FA mechanism for procuring these commodities provides the DOH the flexibility in the quantity of commodities they order for every call-off/procurement, reducing the possibility of overstock or stockout of essential TB commodities.

BEST PRACTICES/LESSONS LEARNED

- Where diverse stakeholders may not agree on solutions, a tailored approach is needed to explore each stakeholder's perspective, which will help in proposing context-specific solutions acceptable to the stakeholders. This was the case in exploring the HTA hub in Asia.
- Where countries have improved governance for areas of pharmaceutical systems, the focus needs to move to pharmacy-service interventions that promote facility-based actions to improve patient care and health outcomes. *(Experience from Indonesia and the Philippines.)*
- Pharmaceutical financing focus differs depending on countries' current level of pharmaceutical data availability. Countries with limited capacity on essential medicines are less likely to be interested in exploring financing for more expensive advanced medicines. *(Experience from Asia Bureau, Cross Bureau, and Covid-19 costing exercise.)*

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

OVERVIEW

Ensuring the availability of safe, effective, quality-assured, and affordable medicines and health technologies is critical for effective health outcomes and requires integration with other objectives, including reliable data for decisions (Objective 3) that address 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*:* In PY1, MTaPS supported government counterparts to develop a long-term procurement strategic plan. MTaPS supported the DGFP in using data generated through the MTaPS-developed eLMIS for decision making and canceled unnecessary shipments of FP commodities, saving USD 9.6 million during PY4. MTaPS also developed the TOE for health facilities with 10 to 500–bed capacity and updated associated reference prices. The program also updated the full specifications of the MSR list and assisted on development of a strategy to regularly assign and review standard reference prices to the updated list. MTaPS developed a checklist that is now used to monitor the performance of procuring entities of the DGHS to contribute to further improvements. MTaPS also provided TA to the FP warehouses to ensure timely resupply of FP commodities, resulting in stock-out rates maintained below 1% at service delivery points. MTaPS introduced the eAMS in all 61 DHs. MTaPS also completed a peripheral storage system assessment for TB medicines where options for storage integration were analyzed, and it proposed a phased transition plan. NTP is currently improving the storage systems based on the plan. MTaPS also supported a capacity assessment of the DGHS's procuring entities and developed key recommendations to strengthen procurement capacities of the DGHS.

Philippines*:* In PY1, MTaPS supported government counterparts to develop a long-term supply chain strategic plan. In PY2, MTaPS analyzed the draft UHC implementing rules and regulations (IRR), recommended articles, and secured legal support for supply chain reforms. Following the UHC reform, MTaPS facilitated the PSCM road map design to support UHC implementation. MTaPS supported the PD in analyzing stock information for key tracer TB, FP, and HIV commodities starting in PY3. MTaPS' capacity-building activities and tools provided for stock analysis have given the PD independence in processing the stock data and using the results for decision making. MTaPS supported the long-term estimations of quantity and budget requirements for TB and FP commodities during the 2019–2022 period. In addition, MTaPS has supported the DOH Disease Prevention and Control Bureau (DCPB) in the development and review of the quantification module in the Local Health System Playbook for Integrated Service Delivery for LGUs. This playbook guides local health officers on operational planning and management to improve delivery of health services. MTaPS also facilitated the registration of

selected public health products. With regards to the US President's Emergency Plan for AIDS Relief (PEPFAR)–funded activities, MTaPS facilitated the donation processes, clearance, and availability of ARVs for pre-exposure prophylaxis (PrEP) and viral load cartridges donated by USAID. MTaPS has also supported the DPCB, the Epidemiology Bureau (EB), and other stakeholders to complete the 3-year (2022–2025) quantification of ARVs for adult first line and PrEP, HIV test kits, and viral load cartridges. The results of the quantification activity guide immediate and future solicitation and allocation of funds and procurement. In addition, MTaPS used the results of the quantification exercise to develop the PSCM support plan for TLD transition.

***Jordan**:* In PY3, with strong leadership from local counterparts, MTaPS supported the MOH to advance efficient vaccine procurement through policy and legal reforms. The reforms facilitate supplier market entry and increase competitiveness, enhancing vaccine availability in Jordan. A comprehensive supply chain assessment was conducted with the MOH and its recommendations, aiming to improve procurement and supply chain practices, are integrated in the program's work plan.

SUB-OBJECTIVE 5.2: PATIENT-CENTERED PHARMACEUTICAL CARE IMPROVED

***Nepal**:* MTaPS worked with the DDA to develop and finalize guidelines, inspection tools, and an implementation strategy on GPP and GSDP. As part of the implementation of the strategy, MTaPS created e-Learning and IEC materials to raise awareness on GPP among entity owners and the public. In response to findings from the GHPP situational analysis conducted by MTaPS, the MOHP formed a nine-member TWG to revise the existing hospital pharmacy directives.

SUB-OBJECTIVE 5.3: PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS ASSURED

***Bangladesh**:* MTaPS has strengthened the PV system of the DGDA through scaling up of PV to more than 30 government and private HFs by providing training and creating PV units to institutionalize PV initiatives, by developing and implementing risk management and investigation procedures, and by supporting periodic evaluation and reporting of ADE data.

***Jordan**:* MTaPS has 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 data collection processes, and analyses of data. It also generated and submitted comprehensive reports and key messages to encourage approval and dissemination of vaccine uptake by the MOH's National Pharmacovigilance center.

***Mozambique**:* MTaPS supported ANARME in the institutionalization of PV and the utilization of PViMS for both active and passive surveillance. It supported implementation of ASM of TLD; training ANARME, IP personnel to act as trainers on the protocol and SOPs for the surveillance; analysis of the active surveillance data of ASM of TLD in PViMS, including causality assessment. MTaPS also supported the implementation of ASM of TPT regimens by providing TOT and by training 21 provincial and district focal persons, who cascaded similar training to 82 other HCWs at the TPT implementing sites. There were 65 participants enrolled, with 30 follow-up visits completed and support supervision to the sites conducted.

***Nepal**:* MTaPS supported the DDA with a situational analysis of the PV system in the country. Based on the findings of this analysis and WHO's best PV practices and GBT assessment, MTaPS developed PV

regulations, guidelines, risk management plans, and SOPs. MTaPS supported the DDA to establish a PV and drug information working group, which helped the DDA to become a member of the International Society of Pharmacovigilance. MTaPS also supported capacity development of the DDA through training on signal detection, analysis, and risk management.

***Philippines**:* MTaPS supported the implementation of PViMS for active surveillance for TB medicines and working with the DOH's pharmaceutical division and the FDA, ensured interoperability between PViMS and WHO VigiFlow for ADR reporting. MTaPS has also supported the causality assessment of the AE reports submitted through PViMS.

***Rwanda**:* MTaPS has continuously supported the Rwanda FDA to institutionalize PV through development of a PV national plan, capacity development through training of PV personnel, creation of awareness on PV through IEC materials, safety monitoring through active surveillance for the newly introduced DTG-based ARV treatment regimens and evaluation of safety reports for regulatory decision making.

***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 that committee assess AEs associated with these products. MTaPS built the capacity of TMDA staff on the assessment of PSURs and risk management plans for ARVs and other medicinal products.

***IGAD**:* MTaPS helped the IGAD secretariat operationalize the IGAD EWG-PV by supporting the review and validation of the TOR and the development of a harmonized EWG-PV plan of activities. In collaboration with the EAC secretariat and EAC states, MTaPS developed and validated harmonized SOPs for the implementation of the EAC PV compendium. MTaPS also supported the IGAD EWG-PV to develop a draft harmonized with the IGAD-PV training curriculum, training package, and costed work plan.

SUB-OBJECTIVE 5.4: ANTIMICROBIAL RESISTANCE CONTAINMENT SUPPORTED

***Jordan**:* MTaPS strengthened the national AMR steering committee and its technical subcommittees to operationalize the NAP-AMR through MSC and a stakeholder analysis of the AMR/AMS initiatives. Additionally, the MOH approved the National Policy to Combat multidrug-resistant organisms (MDRO), developed by the ACIPC with MTaPS' support. To enhance the technical capacities of IPC focal points, MTaPS supported ACIPC to launch a certified IPC training course. MTaPS also coordinated with the MOH's School Health Directorate to nominate health educators for the MTaPS-led CASS initiative and conducted a TOT to prepare them for AMR awareness sessions. In Y5, MTaPS helped develop 27 protocols and implementation procedures for management of priority ICU infections, and an accompanying audit tool.

***Philippines**:* MTaPS supported the finalization of TOT materials on IPC and HCWM standard guidelines and practices in HFs and used the materials to train 41 trainers. MTaPS supported the DOH to develop the IPC checklist tool applicable for HFs such as HIV/AIDS outpatient care facilities. Using this IPC checklist tool, MTaPS conducted assessments of IPC practices in 30 HIV facilities and community-based organizations (CBO).

***Rwanda**:* Upon finalization of the first NAP-AMR, MTaPS collaborated with the MOH, Rwanda FDA, and other stakeholders to develop a complementary national multisectoral communication strategy for AMR. MTaPS also provided technical support to the MOH to conduct an AWaRe categorization of antibiotics and integrate it into the NEML to help prescribers use antibiotics more effectively. To improve pharmaceutical management in HFs, MTaPS supported the development of a manual for the establishment and operationalization of MTCs, and subsequent training guide and job aids.

***Nepal**:* To map previous and ongoing AMR-related actions by the government of Nepal, the MOHP, OH partners, and MTaPS Nepal began an AMR landscape analysis, which will inform the development of an AMR training curriculum for journalists and IEC materials on AMR containment and AMS.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

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

***Bangladesh**:* In February 2023, USAID MTaPS facilitated a workshop on "Tracking Procurement Efficiency by Using Performance Monitoring Tools" to share and analyze procurement issues obtained from the procuring entities (PE), identifying gaps and possible solutions. As part of the support to institutionalize eAMS for medical equipment at DHs, this quarter, 834 asset information entries were made, and 5 tickets were raised. To date, the system has information on a total of 8,977 assets, 291 tickets have been raised, and 123 have been resolved. Health managers can now better monitor and plan maintenance and procurement of equipment. From a transitioning perspective, MTaPS conducted a two-day TOT for the selected officials from the DGHS and discussed the risks and challenges and their mitigation.

***Philippines**:* MTaPS completed drafting of the Quantification Guidelines for Health Commodities, which provides guidance on choosing methods: collecting, analyzing and formulating relevant data: and calculating quantities and budget requirements. To increase TB medicines suppliers' participation, MTaPS supported the DOH by reaching out to potential suppliers in the country. With the objective of designing inventory control systems for all levels, MTaPS collaborated with SCMS and DPCB to conduct a series of meetings, establish a TWG responsible for leading the activity, facilitate a virtual consultative and learning session on supply chain system design, and share practical lessons and experiences from other countries. The workshop was attended by 110 participants (76 female) from the DOH, POPCOM, CHDs, LGUs, and HFs. With the objective of increasing choices and availability of implants in the country, MTaPS communicated the Notice of Deficiency (NOD), as seen in the FDA tracker, to an additional marketing authorization holder (MAH), who was able to submit compliance documents to FDA. With respect to PEPFAR-funded activities, MTaPS facilitated clearance of 2,300 USAID-donated kits of viral load cartridges. MTaPS also mapped out the registered HIV test kit suppliers and shared the information with the DOH to help in market scoping. MTaPS coordinated with the DOH PS on the possibility of the procurement of HIV/AIDS commodities through the Global Fund (GF) pooled procurement mechanism for selected HIV commodities whose order quantities are low and are not attractive to local suppliers such as pediatric ARVs. To mitigate procurement bottlenecks due to limited coordination between procuring entities and suppliers, MTaPS is supporting the DOH-PS in organizing the Suppliers' Expo, in which they will discuss procurement-related issues and seek common solutions.

MTaPS supported a survey of suppliers' willingness to participate—which had positive results—and a pre-orientation meeting to brief the suppliers on the details of the Expo. MTaPS supported technical meetings on the standardization of distribution and inventory management process and timelines of HIV/AIDS commodities. In addition, MTaPS closely monitored and avoided extended shortage and stockout of HIV test kits and DTG 10mg tablets by following up with SCMS to ensure fast distribution to regional warehouses.

***Jordan**:* As recommended by the MOH Institutional Development and Quality Control Directorate (IDQCD), MTaPS supported the PSD to revise policies and SOPs. PSD staff and MTaPS performed the final review, and revised versions have been submitted to the PSD Director for dissemination. Once completed, these documents will also contribute to sustainable availability of safe, effective, and quality-assured essential medical products for the population. One of the policies on quantification will not be finalized with MTaPS support, as the WHO will be working on a comprehensive forecasting approach decided upon during a coordination meeting between USAID/Jordan, the WHO, and the MOH.

SUB-OBJECTIVE 5.2: PATIENT-CENTERED PHARMACEUTICAL CARE IMPROVED

***Nepal**:* MTaPS helped finalize the GPP and GSDP e-Learning module, which will be uploaded onto the DDA website once approved. Additionally, MTaPS supported the CSD to finalize the contents of the GHPP capacity-strengthening package for hospital pharmacists.

SUB-OBJECTIVE 5.3: PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS ASSURED

***Bangladesh**:* MTaPS helped the respective committees 294 AE reports (patients included 129 male, 152 female, and 13 unknown) and 78 aDSM reports (58 male, 20 female). A demonstration of the PViMS was presented to the DGDA, and it was received positively. The audience appreciated the demonstration and provided valuable feedback, including user access control creation for MAHs, editing options, and other technical rearrangements that will be addressed before conducting a UAT for the system.

***Mozambique**:* MTaPS supported ANARME, IP and CCS undertake supervisory site visits for the ongoing active surveillance of TPT regimens. The team identified gaps in the TPT active surveillance implementation (low patient enrollment and follow-up) and made recommendations to address them.

***Nepal**:* To strengthen PV reporting quality and quantity, MTaPS procured resources such as updated reference materials. MTaPS helped the DDA obtain membership to the International Society for Pharmacovigilance. MTaPS helped draft a technical brief on PV capacity-building activities, and three modules of the PV e-Learning course are undergoing finalization. These information resources will help regional PV contact persons access updated medicines information, check ADRs, and monitor the medicine, thus increasing the quality and quantity of ADR reports.

***Philippines**:* To reach more trainees and contribute to the longer-term sustainability of the PV system, MTaPS developed a draft e-Learning module for PV. As part of the aDSM of TB medicines, 7 AEs were reported in PViMS, making the total reported so far 582. Based on a causality assessment of the 582 reports (patients included 309 male and 273 female), 32.47% were possible AEs, 5.84% were probable AEs, and 25.94% were rated as unlikely AEs; 35.73% of the reports were incomplete and were not assessable. In addition, the PD conducted a refresher training to a total of 6 (5 women) on the use of PViMS in Cordillera Autonomous Region.

SUB-OBJECTIVE 5.4: ANTIMICROBIAL RESISTANCE CONTAINMENT SUPPORTED

***Jordan**:* MTaPS supported the RMS Quality Department to finalize the key performance indicators that will be used to measure compliance to AMS protocols, and it oriented department staff on the draft audit tool that is now being used to establish baseline practices. In addition, MTaPS Jordan collaborated with local counterparts to conduct AMR trainings at 22 schools and a TOT for 28 (19 women) health educators—2 from each of the 14 health directorates covering the entire country. MTaPS also helped 2 hospitals develop antibiotic prophylaxis protocols for 4 priority surgical procedures and an antibiotic management protocol for urinary tract infections, which were subsequently reviewed, approved, and disseminated to all MOH hospitals for implementation. For IPC, MTaPS collaborated with the IPC Department and IDQCD to conduct a TOT for 14 IPC focal points (11 women)—1 from each of the 14 health directorates, who then cascaded the training to a total of 68 health care workers (53 women).

***Nepal**:* To raise the profile of Nepal's AMR issues internationally, MTaPS provided technical information about the AMR context in Nepal and MTaPS AMR activities to a group of German and Austrian journalists. Also, during the quarter, SOWs were developed and advertised for two consultants who will be helping with the AMR-related sensitization of media personnel in the various provinces of Nepal.

***Philippines**:* The Health Facility Development Bureau of the DOH provided funding to 12 regions for cascading IPC and HCWM training using MTaPS trained master trainers.

BEST PRACTICES/LESSONS LEARNED

- Exploring and implementing alternative procurement approaches is critical for products that are difficult to source through the normal DOH procedures. The DOH has been having difficulty in procuring ARVs for pediatrics due to the minimum quantity required by the suppliers; alternative mechanisms such as the GF pooled procurement should be explored to ensure continuous availability of these lifesaving commodities. *(Philippines experience)*
- Strong coordination among in-country donors is extremely important. For the PSD Strategic Plan, MTaPS coordinated and planned for this activity with the PSD Director and submitted it to the MOH. However, the WHO received a significant fund from the EU for a comprehensive supply chain improvement program without the knowledge of the PSD Director, resulting in duplication of efforts in donor activities. MTaPS will engage higher administrative levels in the MOH more periodically. *(Jordan experience)*

3. PROGRESS BY HEALTH AREA/FUNDING STREAM

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

OVERVIEW

MTaPS provides GHSA support to 13 partner countries (Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, DRC, Ethiopia, Kenya, Mali, Mozambique, Nigeria, Senegal, Tanzania, and Uganda), focusing on AMR containment. MTaPS' GHSA approach is to help countries reach higher IHR capacity levels measured by JEE scores in the three mandated areas of MSC-AMR, IPC, and AMS to enhance their ability to effectively implement NAPs-AMR.

CUMULATIVE PERFORMANCE TO DATE

MTaPS has helped the 13 GHSA-supported countries make considerable progress in strengthening capacity in the 3 mandated areas of MSC-AMR, IPC, and AMS, including developing, adapting, and adopting evidence-based tools and approaches and transferring technology and competencies. This section highlights select countries' cumulative progress made in the three focus areas.

EFFECTIVE MSC-AMR: EXAMPLES FROM TWO COUNTRIES

Beginning in PY3, MTaPS in **Nigeria** worked with the national AMR secretariat to revitalize the national IPC and AMS subcommittees of the AMR TWG, including developing terms of reference and workplans. Since revitalization, MTaPS has collaborated with the AMR TWG to help the subcommittees hold regular quarterly meetings, which in turn has fostered improved working relationships among the human health, animal health, and environment sectors. In PY4, in preparation for development of the NAP-AMR 2023-2028, MTaPS led the review of the NAP-AMR 2017-2022 implementation to identify areas of progress and analyze challenges. Based on the review findings, in PY5, MTaPS supported national stakeholders to begin planning for the development of the NAP-AMR 2023-2028. At the sub-national level, MTaPS supported the establishment of state-level IPC and AMS committees in Enugu and Kebbi states, as well as a first-of-its-kind AMR TWG in Kebbi state.

To help improve implementation of national IPC and AMS activities in **Tanzania**, since PY1, MTaPS has both supported the AMR MCC to hold regular meetings to coordinate actions across the different sectors and established and operationalized the national IPC and AMS TWGs. MTaPS also helped to develop and operationalize the "Multisectoral AMR Communication Strategy: Moving from Awareness to Action 2020–2025" to improve One Health communication from the human health, animal health, plant, and fishery sectors. In PY4, MTaPS assisted in the review of the NAP-AMR 2017–2022 and subsequent development of the new NAP-AMR 2023–2028, which was officially launched during WAAW 2022.

IPC Improved and Functional: Examples From two countries

MTaPS in **Mali** has helped the GCMN-RAM, via the IPC TWG, conduct annual national IPCAT2 assessments since PY2. Based on the results of the PY3 assessment, MTaPS supported the development and launch of the 2023–2027 IPC strategic plan. To help build a pathway toward sustaining IPC capacity strengthening and continuous education, MTaPS worked with the GCMN-RAM to develop and launch an IPC e-learning platform, hosted collaboratively at three national institutions. Since its launch, a total of 250 people has registered for courses on the platform. At the facility level, MTaPS helped establish IPC committees at 16 facilities, including helping them draft IPC action plans and conduct annual IPCAF assessments.

Since PY1, MTaPS in **Uganda** has applied CQI methods to strengthen IPC capacity of HCWs at 13 health facilities, including making 90 mentorship visits that had reached a combined 2,244 HCWs (55% female, 45% male) as of PY5Q1. Starting in PY2, MTaPS began developing 6 of the 13 facilities as COEs, with the aim of building a community of HCWs who will be able to cascade IPC knowledge and practices to other health care facilities, even after the end of the MTaPS program. To help improve IPC practices in the animal health sector, throughout PY1 and PY2, MTaPS supported MAAIF to develop IPC and AMU guidelines for the country's five leading agriculture production systems (poultry, cattle, fish, pig, and goat/fish farming).

Use of Antimicrobial Medicines Optimized: Examples from two countries

In **Côte d'Ivoire**, during PY2, MTaPS supported the AMR TWG to establish an expert group to (1) assess antimicrobial use and regulations in animal health and (2) evaluate antimicrobial dispensing in both the human and animal health sectors. Based on the expert group's findings, MTaPS helped the AMR-TWG develop a national AMS policy and national AMS guidelines. MTaPS used the AMS policy and guidelines to create training materials, which have been implemented to strengthen HCWs' capacity in 20 MTaPS-targeted health facilities and 2 veterinary clinics. MTaPS also established a pool of IPC/AMS trainers, including 8 master trainers and 36 regional trainers, to train DTCs and promote IPC and AMS capacity in health facilities nationwide.

Between PY1 and PY2, MTaPS in **Ethiopia** supported PMED to update both the NEML and STGs, including adding AWaRe categorization of antibiotics for the first time. During PY4, MTaPS helped draft an STG implementation manual, which will be used to increase clinicians' adherence to the STGs. MTaPS also provided technical assistance to create a manual on the hospital antimicrobial use policy to promote adherence to the NEML and STGs. To further institutionalize the NEML and STGs, in PY5Q1, MTaPS participated in an Ethiopian Health Insurance Services review workshop for the Health Insurance Medicine List and helped reconcile it against the NEML and STGs.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

Effective MSC-AMR

Strengthening MSC governance structures and functions: MTaPS in **Kenya** supported the Nyeri County CASIC to conduct their end-term action plan review, including identifying priority areas for the plan's next iteration covering 2023-2025 and establishing six county TWGs aligned with the six strategic

objectives. Through a series of key informant interviews and focus group discussions, MTaPS **Uganda** supported the NAMRsC to collect qualitative data on the implementation status of the NAP-AMR.

Holding multisectoral meetings or activities: During this quarter, MTaPS helped coordinate routine MSC meetings in **Burkina Faso, Côte d'Ivoire, DRC, Mozambique, Senegal,** and **Tanzania**. At a workshop organized by the OHP and the RUA sub-commission, MTaPS in **Burkina Faso** helped sensitize 89 medicine and pharmacy students (38 women) from Nazi Boni University of Bobo-Dioulasso on the rational use of antimicrobials. MTaPS also collaborated with the OHP technical secretariat to carry out a similar RUA sensitization workshop for 16 head officers of health regions and health districts and general directors of hospitals. At a workshop this quarter, MTaPS in **Ethiopia** supported the Amhara RHB to advocate for the importance of the AMR agenda to 158 participants (9 women), including representatives from the Amhara RHB and hospital CEOs and medical directors. During the workshop, participants discussed roles and responsibilities for cascading the NAP-AMR in the region. MTaPS in **Ethiopia** also helped train 30 health care professionals (5 women) on AMR and AMS tools, including the AWaRe classification of antibiotics. To assess national level IPC activity implementation, MTaPS in **Mali** collaborated with the GCMN-RAM and IPC TWG to conduct an annual IPCAT2 assessment, with results showing improvement in two out of six categories since 2022. In **Uganda**, MTaPS worked with Makerere University and the ASO-TWC of the NAMRsC to draft the fourth edition of the multisectoral biannual AMS newsletter, which highlights AMR activities implemented at national and sub-national levels.

Drafting or updating multisectoral policies, plans, or guidelines: This quarter, in **Cameroon**, MTaPS supported a five-day workshop that brought together stakeholders from OHP, the AMR MCC technical secretariat, and relevant ministries to review and finalize the NAP-AMR and develop the accompanying M&E framework. At three workshops organized with MTaPS support in **Côte d'Ivoire**, participants developed and validated the M&E plan for the 2021-2025 NAP-AMR and validated the AMR operational advocacy plan that was developed last quarter. During a series of three NASIC secretariat-led workshops, MTaPS in **Kenya** provided technical assistance to complete the development and review of the NAP-AMR 2023-2027 and accompanying M&E framework and activity costing. In **Senegal**, MTaPS worked with the AMR TWG to finalize and share several technical documents, including (1) guidelines for rational use of antimicrobials in the human and animal sectors in Senegal; (2) list of critically important antimicrobial agents; and (3) review of and recommendations on the strategy for improving social and behavior change communication on AMR.

IPC Improved and Functional

Strengthening IPC governance structures and functions: In collaboration with MOH Division of Patient and Health Worker Safety, MTaPS in **Kenya** supported the ongoing pilot of the IPC M&E framework by monitoring reports from the KHIS national dashboard and facilitating a data review meeting in Kisumu County to assess how the IPC M&E system is being carried out. Following the data review meeting, MTaPS conducted site visits to the 16 focus facilities to monitor use of the reporting tools and to provide related mentorship. In **Uganda**, MTaPS used the qualitative assessment tool developed in PY5Q1 to assess the capacity of the six IPC COEs to function on their own; the data has laid the groundwork for a programmatic evaluation of MTaPS implementation in Uganda and will be used to advocate for funding to sustain the COEs.

Developing and implementing IPC policy and guidance documents: MTaPS collaborated with the national AMR TWG secretariat in **Nigeria** to conduct a workshop to prepare the first edition of IPC guidelines for viral hemorrhagic fever management. The workshop resulted in a zero draft of the guidelines, which the NCDC's internal team is reviewing, prior to finalization and distribution to health care facilities nationwide. To help harmonize the dissemination of IPC information, MTaPS in **Tanzania** worked with the MOH to review the 2017 IPC communication strategy before sharing it with stakeholders for further inputs.

Developing individual and local capacities: In **Bangladesh**, MTaPS conducted joint supervisory visits with CDC, DGHS, and Quality Improvement Secretariat officials at six health facilities. During the visits, the supervisory team observed reduced handwashing—likely due to a decrease in COVID-19 cases—and, as a result, the team re-emphasized the importance of hand washing with the staff. MTaPS in **Cameroon** worked with the DPS to conduct joint onsite supervision visits of IPC committees at four health facilities, including conducting IPCAF assessments. The IPCAF assessments found that all four facilities had higher IPC scores compared to the previous assessment, with two of them attaining the "advanced" level. The AMS TWG and MTaPS in **Côte d'Ivoire** collaborated to help conduct IPCAF assessments at three facilities that are in line to be COEs. Overall, the assessments found improvement in the IPC program and IPC guidelines elements, with gaps remaining in the other six elements.

As part of the health facility quality improvement program initiated in PY5, MTaPS in **Ethiopia** assisted the national counterparts to carry out facility IPC and AMS assessments and helped each hospital develop improvement plans based on the gaps identified. In addition, MOH and MTaPS coordinated to train 139 HCWs (70 women) from the 4 supported facilities on IPC and AMS topics. MTaPS in **Kenya** collaborated with the National Nurses Association of Kenya to conduct a virtual webinar for 167 participants (96 women) on occupational safety and health worker reporting and compensation. In **Nigeria**, MTaPS supported the local counterparts to organize a workshop for 18 IPC team members from 3 MTaPS-supported facilities to strengthen their capacity in using multimodal and CQI strategies and in following the national IPC guidelines to create sustainable IPC programs.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Developing and implementing AMS policies, plans, and guidance documents, including AWaRe classification: MTaPS in **Bangladesh** oriented HCWs from four health care facilities on the STG app field test, including helping staff install the app and sharing the feedback form link. In **Burkina Faso**, MTaPS supported the DGSV to validate the draft ministerial order establishing a pharmacovigilance system in the animal health sector as required by the West African Economic and Monetary Union recommendations. Building from meetings conducted last quarter, MTaPS in **Côte d'Ivoire** supported the MTC5 to convene two meetings of the AWaRe expert committee where participants identified the antibiotics to put in the Reserve category and validated the list of antibiotics for the Access and Watch categories. Also, this quarter, MTaPS in **Côte d'Ivoire** collaborated with the AMR TWG and WHO to organize two workshops to update and validate the interministerial decree officially establishing DTCs in Côte d'Ivoire, which defines their mission, attributions, composition, and functions. To strengthen **Kenya's** institutionalization of the AWaRe categorization of antibiotics, MTaPS finalized the first Kenya National Medicines Formulary and supported the review of the KEML 2019 in preparation for its update. In **Tanzania,** MTaPS helped the MOH to collect data on antimicrobial consumption from 2020 to 2022,

which will be used for a multi-year trend comparison to monitor the impact and effectiveness of national AMS policies and guidelines. MTaPS in **Tanzania** also helped develop PPS SOPs based on the WHO PPS protocol. The SOPs will help build the capacity of facility AMS teams to independently conduct PSS.

Assessing AMS capacity at the national and local levels and developing action plans: In **DRC**, MTaPS worked with the DPS to conduct a supervision visit to one hospital to assess adherence to the NEML and specifically the WHO AWaRe categorization. The supervision team found that hospital staff was adhering well to the AWaRe categorization, with at least 60% of antimicrobials prescribed under the Access category. In addition, as part of their CQI program in collaboration with the MTaPS focus counties, MTaPS in **Kenya** conducted quarterly visits to 20 health facilities to monitor the implementation of AMS CQI action plans, provide mentorship, and assess use of M&E tools to report on outpatient antimicrobial prescribing indicators. During monitoring visits, MTaPS in **Mali** supported six hospitals to update their AMS action plans and strengthen ownership over their AMS data collection tools. In **Uganda**, MTaPS worked with the MOH to refine a qualitative assessment tool to evaluate whether the six hospitals have the capacity to be designated as AMS COEs.

Strengthening individual and local capacity: In **Bangladesh**, MTaPS conducted an AMS lessons-learned workshop based on four facilities' experiences. During the workshop, participants reaffirmed the importance of MTaPS' work in containing AMR and the need to continue strengthening capacity of the AMS committees. To increase prescribers' adherence to the STG, MTaPS in **Ethiopia** supported the MOH/PME-LEO to sensitize 30 health care professionals (5 women) on the STG and its implementation manual. MTaPS in **Kenya** facilitated a training on MTCs and AMS for 32 participants (17 women) in Nyeri County, including representatives from 2 non-MTaPS hospitals, to strengthen their capacity to provide leadership and mentorship in the implementation of facility AMS CQI action plans. To help ensure that antibiotic quality is maintained throughout the product's life cycle, MTaPS in **Nigeria** supported the National Agency for Food and Drug Administration and Control to train field officers in the North Central Zone on good storage and distribution practices, including making a facility visit with hands-on coaching. In **Senegal**, MTaPS supported the NCAT and DQSHH to finalize 35 training modules on the national antibiotic STGs and to develop a training plan for their rollout.

BEST PRACTICES/LESSONS LEARNED

- Implementing partners need to establish clear communication mechanisms that define areas of collaboration to improve efficiency and overcome schedule conflicts. (*Experience from Burkina Faso and Nigeria*)
- Applying multimodal strategies to providing onsite and remote assistance to health care facilities motivates facility staff to actively take part in interventions. In Ethiopia, consistent communication through a variety of platforms, including phone calls, emails, and social media groups, facilitated information sharing between facilities. In Senegal, using mixed approaches in an integrated fashion helped guide action and provide a clear focus to facilities.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Bangladesh (BD), Burkina Faso (BF), Cameroon (CM), Côte d'Ivoire (CDI), Democratic Republic of the Congo (DRC), Ethiopia (ET), Kenya (KE), Mali (ML), Mozambique (MZ), Nigeria (NG), Senegal (SN), Tanzania (TZ), Uganda (UG)

	Activity & Description
Global	▪ Finalize the GHeL AMR 2 course
MSC	▪ Continue facilitating meetings of MSC-AMR bodies and/or their TWGs (BF, CI, DRC, ET, ML, MZ) ▪ Support development and/or launch of a revised NAP-AMR (KE, SN) ▪ Create an inventory of AMR interventions supported by different stakeholders (BD) ▪ Undertake assessment of the country's progress on JEE capacity for IPC, MSC, and AMS (TZ)
IPC	▪ Help IPC committees at MTaPS-supported facilities conduct IPC activities (BD, CI, CM, KE, ML, MZ, SN, TZ) ▪ Support national-level evaluation of IPC components (DRC, MZ) ▪ Develop (ET) and finalize (BD) IPC e-learning courses ▪ Finalize IPC guidelines (KE) and strategic plan (SN)
AMS	▪ Support implementation and/or monitoring of facility AMS activities (BD, BF, CI, CM, DRC, KE, ML, MZ, TZ) ▪ Disseminate the ministerial order regulating and enforcing the rational use of antimicrobials (BF) ▪ Support AWaRe classification of antibiotics (CM, MZ, NG) ▪ Finalize and launch AMS e-learning modules (ET) ▪ Support the digitalization and rollout of the AMC surveillance tools in counties (KE) ▪ Develop an in-service AMS curriculum and training materials (TZ)

B. COVID-19

COVID-19 RESPONSE AND VACCINE INTRODUCTION—QUARTERLY PROGRESS FOR QUARTER 2, FY23

In Quarter 2, FY23, MTaPS supported the governments in 11 countries to strengthen the response to COVID-19 threats and to plan, deploy, administer, and monitor the safety of COVID-19 vaccines. In Burkina Faso, MTaPS completed all its planned activities in Quarter 4 FY22). Despite a noticeable decline in reported cases, COVID-19 remains a public threat in all 11 countries, which requires continuous efforts for maintaining the quality and safety of health services through better IPC, uninterrupted supply of IPC- and COVID-related products, and equitable and safe vaccine introduction with specific focus on vulnerable population groups. Careful vaccination planning, reaching out to vulnerable and remote populations, the active promotion of vaccine safety monitoring and evidence-based information, and engagement of private-sector providers are among the tasks performed by MTaPS.

The 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:

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: Pharmacovigilance 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

Select Quarter 2 highlights from the MTaPS countries include the following:

In **Bangladesh**, USAID MTaPS continued to support the integrated MIS of DGHS. In the reporting period, MTaPS helped CMSD to train the users and finalize the cmsd.gov.bd online portal, which is now a part of the DGHS' main server, thus resulting in the creation of an integrated logistics management information system for both COVID and non-COVID health commodities. MTaPS also provided support to finalize the COVID-19 Vaccine Logistic Management System (vLMIS) to monitor the COVID-19 vaccine and logistic stock, inventory, and distribution. vLMIS is now functional under the leadership of

the Expanded Programme on Immunization (EPI) and will be expanded for all vaccines of the national immunization program.

In **Cameroon**, MTaPS supported the preparation for vaccination of population in hard-to-reach areas in April 2023. MTaPS conducted three microplanning workshops, resulting in mapping 752 hard-to-reach areas in 42 MTaPS-supported health districts and planning for 232 special vaccination teams that will be required to vaccinate the target of 101,531 people. MTaPS also conducted the evaluation of cold chain equipment (CCE) in 37 faith-based private health facilities that will be engaged in the vaccination program in 23 health districts.

In **Côte d'Ivoire**, in Quarter 2, MTaPS supported a total of 9,578 vaccination sites during the vaccination campaign in January and February, giving special attention to the supervision of those involved in immunization of pregnant and breastfeeding women in 33 health facilities. This activity resulted in the vaccination of 8,839 pregnant and lactating women, including 4,868 pregnant women and 3,971 lactating women, at the time of supervision.

In **Kenya**, MTaPS facilitated a discussion with the PPB, the Center for International Health, Education, and Biosecurity—Kenya (CIHEB-Kenya), and National Vaccines and Immunization Program (NVIP) related to the commencement of data collection for the COVID-19 vaccines cohort event monitoring (CEM). MTaPS provided PV sensitization trainings to 215 county health workers and county health management team (CHMT) members (142 female, 73 male) in Nyeri, Murang'a, and Kiambu.

In **Madagascar**, MTaPS supported the development of a quantification and distribution plan for COVID-19 rapid diagnostic tests and cartridges for GeneXpert, and it harmonized data registers for national health programs, including COVID-19 and linked them to the national DHIS 2. MTaPS supported the Ministry of Public Health in drafting the supply management guidelines for public hospital medical imaging and testing laboratories, which helps to ensure the availability of essential supplies and equipment (including those for COVID-19 response), optimal allocation of resources, and better preparedness to handle potential future epidemic crises such as COVID-19.

In **Mozambique**, MTaPS supported the DNAM of the Ministry of Health to strengthen IPC for the ongoing COVID-19 vaccination campaign. MTaPS developed training materials and trained 64 master trainers and supported cascade training for 66 health care workers (130 total: 69 male, 61 female) in Maputo City and Maputo Province on COVID-19 vaccination-related IPC and waste management.

In **Nigeria**, In Quarter 2, to promote vaccine acceptance and demand generation, MTaPS designed, printed, and distributed COVID-19 vaccination IEC materials for 43 private hospitals and 54 community pharmacies (CP) in Lagos, Cross River, Oyo, and Akwa-Ibom States. To expand vaccination coverage, MTaPS trained 273 (80 male, 193 female) vaccinators from 215 CPs and private hospitals, and supported vaccination campaigns resulting in vaccinating 8,198 people (3,885 male, 4,313 female), and giving booster doses of Janssen vaccine to 5,788 people (2,332 male, 3,456 female).

In the **Philippines**, MTaPS worked on establishing a system for recording and tracking mechanical ventilators and other relevant equipment donated to the country by USAID. In collaboration with WHO and UNICEF, MTaPS evaluated the existing Inventory Gap Analysis (IGA) system at the DOH, and proposed options for encoding the ventilators into IGA. Based on the findings, MTaPS, in coordination

with the DOH, designed a training course on managing the inventory of ventilators and other equipment via IGA. The training will be conducted in Quarter 3.

In **Senegal**, MTaPS is wrapping up its COVID-19 support, focusing on strengthening vaccine-related waste management by training 42 (36 male, 6 female) health care and community workers in 6 health districts.

In **Rwanda**, MTaPS is supporting the Rwanda FDA to deploy the IRIMS for the registration of COVID-19 vaccines and other pharmaceuticals. MTaPS trained 46 (26 male, 20 female) Rwanda FDA users on the management of the IRIMS operations, and supported the hosting arrangements, maintenance, and software upgrades. As of Quarter 2, IRIMS is 85% operational and is expected to go live in April 2023. The work on the development of a costed national pharmaceutical manufacturing strategy for Rwanda, which will include COVID-19 vaccines, is now on hold at the Mission request.

In **Tanzania**, MTaPS focused on the activities related to COVID-19 vaccine safety. In collaboration with the Tanzania Medicines and Medical Devices Authority (TMDA) and the Muhimbili University of Health and Allied Sciences (MUHAS), MTaPS trained 30 (17 male, 13 female) district immunization and vaccination officers (DIVO), district pharmacists (DPHARM), PV center staff, and TMDA zonal focal persons as master trainers on COVID-19 PV supportive supervision. During Quarter 2, MTaPS aided supportive supervision in 285 vaccinating health facilities in 19 regions of the Tanzania Mainland, and it supported the review of 142 COVID-19 AEFI reports including 15 moderate and 0 serious ones submitted to the country monitoring system.

For more information about MTaPS' COVID-19 activities, click here.

Table 1. MTaPS COVID-19 Quarter 2, FY23, indicators (detailed breakdown can be found in annex 3)

Indicator and Disaggregation		Q2 FY23	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	1,110	10,525
Sex	Male	517	5811
	Female	593	4714
	Unknown sex	0	0
CV.1.3-4 Number of health workers who are renumerated by the US Government (USG) to support workload required for COVID-19 vaccine delivery in the reporting period			
	Number of people renumerated	1,900	4,377
Cadre	Clinical	239	873
	Community/law	56	235
	Data management	730	1,181
	Supervision and logistics	875	2,088
CV.1.4-5 Number of vaccination sites supported by USG during the reporting period			
	Number of vaccination sites supported	9,825	24,957
Types of sites	Fixed sites	2245	11,086
	Community-based outreach vaccination sites	7,566	12,433
	Mobile team (or clinic) or transit team strategy	14	14
	Mass vaccination sites/campaigns	0	1424
	Unknown	0	0
CV.1.4-6 Number of people who received a first dose of an approved COVID-19 vaccine (COV-1) with USG direct support			

Indicator and Disaggregation		Q2 FY23	Total from March 2020
Number of people who received first dose		0[5]	473,307
Sex	Male	0	3,080
	Female	0	3,308
	Unknown sex	0	466,919
CV.1.4-7 Number of people who received a last recommended dose of primary series of an approved COVID-19 vaccine (COV-c) with USG direct support			
Number of people who received last dose		8198	28,715
Sex	Male	3885	6920
	Female	4313	7883
	Unknown sex	0	13912
CV.1.4-8 Number of people who received a booster dose of an approved COVID-19 vaccine (COV-2,3,4) with USG direct support			
Number of people who received booster dose		5,788	10,6258
Sex	Male	2,332	3,764
	Female	3,456	5,675
	Unknown sex	0	96,819
CV.1.5-9 Number of AEFI reports reviewed with MTaPS' support among those submitted to country monitoring systems			
Number of AEFI reports reviewed with MTaPS' support		**1358**	**8577**
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			
Sex	Male	0	33
	Female	0	30
	Unknown sex	0	0
CV.2.4-17 Number of health facilities where MTaPS provided support for IPC and/or WASH for COVID-19			
Number of health facilities		98	6252
CV.2.4-18 Number of workers who received COVID-19-related training in IPC and/or WASH with MTaPS' support			
Number of people trained		42	49,278
Sex	Male	36	22,205
	Female	6	26,834
	Unknown sex	0	239
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		7	103

[5] In Nigeria, in PY5 Quarter 2, the first dose of the Janssen COVID-19 vaccine is the last recommended dose. The numbers of Janssen vaccines received are reported under indicator CV 1.4-7.

COVID-19 IMMUNIZATION COSTING

OVERVIEW

LMICs have been facing an incredibly challenging vaccine rollout, and COVID-19 vaccine delivery as well as the cost to deliver these vaccines is highly uncertain. According to the WHO, as of October 16, 2022, just 24% of Africa's population had completed their primary vaccination series compared to the coverage of 64% at the global level.[6] 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.

There are some resources, such as tools and guidance developed by the WHO and its partners, which can be helpful in generating estimates of COVID-19 vaccine delivery costs. The 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. 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.

CUMULATIVE PERFORMANCE TO DATE

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

In January and February 2022, MTaPS conducted a desk review across 3 databases, screened 530 articles, and identified 20 studies relevant to social mobilization (14) and campaign/outreach strategies (6). The purpose of this exercise is to gather insights to improve the MTaPS-adapted Harvard/COVAX costing model.

Global estimates require assumptions, which would benefit from in-country intelligence. MTaPS conducted an online survey 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, and implementation of demand generation campaigns. This survey, completed in November 2021 and again in May 2022, identified evolving trends in vaccine delivery at the country level.

Further, MTaPS has been gathering more detailed vaccine delivery expenditure data in two countries: Malawi and Madagascar. MTaPS designed protocol for the country studies based on the How to Cost Immunization Programs Guide, WHO's COVID-19 vaccine introduction and deployment costing tool,

[6] https://ourworldindata.org/covid-vaccinations

and ThinkWell's COVID-19 Vaccine Delivery Costing protocol.[7,8] In Malawi, MTaPS sought and was granted Institutional Review Board (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. Data collection was completed by the end of February 2023.

Lastly, MTaPS have supported ad hoc requests beyond the scope mentioned in the work plan. To date, MTaPS conducted assessment of the CARE International studies on the cost of COVID-19, conducted comparative assessment with Access to COVID-19 Tools Accelerator (ACT-A) 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 2/YEAR 5 ACHIEVEMENTS AND RESULTS

In Quarter 2/Year 5, data collection was conducted in Malawi. Once MTaPS received IRB approval from the National Health Sciences Research Committee (NHSRC) of Malawi, a team of experts immediately started the data collection efforts in the Mangochi, Mwanza, Mzimba South, and Lilongwe districts. MTaPS completed the data collection and submitted the final data files by late February, despite hardship on the ground including several long blackouts because of the rainy season.

In Madagascar, the team received approval from the Secretary General for the Ministry of Health for the research protocol and appointed three focal points for study activities by the *Direction du Programme Elargi de Vaccination*. However, because of significant delays in the preparation process, the study timeline no longer aligns with the project timeline, which has prevented MTaPS from continuing with the Madagascar study.

In place of the Madagascar study, the team received approval to design and roll 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. The survey will be completed by July 2023.

A submission to the journal *Vaccine* on the results of the first two surveys is currently under review by the journal.

BEST PRACTICES/LESSONS LEARNED

- None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Data analysis, Malawi	May 2023
Third Global Survey	July 2023

[7] Resch S, Menzies N, Portnoy A, Clarke-Deelder E, O'Keeffe L, Suharlim C, Brenzel L. How to cost immunization programs: a practical guide on primary data collection and analysis. 2020. Cambridge, MA: immunizationeconomics.org/Harvard T.H. Chan School of Public Health.
[8] ThinkWell. (2021). General Study Protocol COVID-19 Vaccine Delivery Costing. Retrieved 2 February 2022, from https://thinkwell.global/wp-content/uploads/2021/12/General-research-protocol-17-Nov-2021.pdf.

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 and 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 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. MTaPS also developed a summary brief on the key messages and action points in the discussion paper to make those messages more readily accessible to USAID missions and partner organizations and to facilitate their application by NGOs and governments.

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 has been supporting Mozambique's regulatory authority, ANARME, IP, in streamlining registration of MNCH medicines by using findings and recommendations from the mapping. In PY4, MTaPS supported capacity building of 13 assessors from ANARME, IP in the assessment of bioequivalence studies for generic oral medicines and helped increase visibility and transparency of registration procedures through a workshop of 70 manufacturers, importers, and distributors hosted by ANARME, IP.

Also, 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 been developing an advocacy document for NMRAs to use to prioritize registration of MNCH in their countries. MTaPS also began gathering information from SADC member countries to guide the selection of MNCH medicines to be considered at an in-person regional joint assessment.

To strengthen the regulation of medical devices and ensure their quality, safety, and effectiveness, MTaPS and AMDF drafted a resource document on specific considerations for regulating MNCH medical devices and shared it with WHO and other partners for review.

OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION OF 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 management of medicines and supplies. As a result, guidance documents on managing medicines and quality in procurement were developed; webinars were conducted for GFF country teams on the importance of prioritizing a robust pharmaceutical system to support MNCH interventions; a section on managing medicines was included in the GFF annual report, and a pharmaceutical advisor is being recruited for the GFF staff.

In Liberia, the MTaPS senior principal technical advisor provided support to 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 would be a means to ensure availability of quality medicines in counties implementing PBF.

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 a dissemination workshop held in PY4, MTaPS supported MOH in understanding the challenges of subnational procurement of medicines, including for MNCH. MTaPS also supported MOH in identifying and including (in annual budgets and plans) key interventions to improve the quality of and access to medicines procured at subnational levels. This work oriented the development of 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, as applying best practices in the quantification of RMNCH medical products directly affects product availability and the potential to save the lives of women, newborns, and children. The RMNCH forecasting supplement in English and French has been disseminated through a series of webinars to more than 160 people and 8 country teams and is referenced in the recent Global Fund guidance to countries to consider inclusion of nonmalaria commodities in their GF proposals.

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 (used for treating pneumonia in children under 5 and in combination with gentamicin for treating possible serious bacterial infections in newborns). Following preparations in PY3, in collaboration with UNICEF, USAID, GHSC-PSM, and PQM+, in PY4, MTaPS 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.

MTaPS mapped partner support for medical oxygen in the respiratory ecosystem and found little existing support for strengthening countries' regulatory systems to ensure appropriate administration of quality oxygen. WHO agreed that a technical resource document for the quality assurance of medical oxygen from source throughout the distribution chain up to delivery to the patient would inform actions to address the identified gap and complement other operational guidance that WHO is developing.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

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

Dissemination of lessons for design of social accountability interventions for medical products access and use

MTaPS continued preparations for a knowledge exchange activity scheduled for April 12. MTaPS developed a detailed run-of-show for the event, organized and oriented speakers, and sent out invitations. In March, MTaPS finalized the summary of the key messages and action points in the discussion paper taking into account comments from USAID. The summary brief aims to make those messages more readily accessible to USAID missions and partner organizations and facilitate their application by NGOs and governments. MTaPS shared the summary document with speakers ahead of the event and will distribute it to participants during the event. It is expected that the interaction through the webinar will encourage more considered actions involving civil society, as outlined in MTaPS documents, to improve medicine availability and use or even to apply to other areas of health care delivery to priority populations.

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

Improving regulation of MNCH medical devices at regional level

AMDF recommended that the resource document developed by MTaPS on considerations for regulating MNCH medical devices be reviewed by the pre-market TWG. The pre-market TWG of AMDF recommended restructuring the considerations for regulating MNCH medical devices and has provided additional content. AMDF also proposed that this document be considered as an AMDF guideline. MTaPS finalized the document incorporating AMDF feedback and sent it back for approval by the pre-

market TWG and will finalize and submit the document to the AMRH steering committee for approval and endorsement as an AMDF guidance document.

Creating a center of excellence for building capacity for regulating medical devices in a region, with a focus on MNCH medical devices

During a meeting with the AMDF team in January, it was agreed that MTaPS provide support to position the Tanzania Medicines and Medical Devices Authority (TMDA) as a potential regional center of regulatory excellence (RCORE) for regulating medical devices. TMDA was selected, given its maturity level 3 for medicines and established structures for regulating medical devices. MTaPS and the AMDF team agreed to propose a study visit for TMDA to a stringent regulatory authority to see how it regulates medical devices and twinning visits for a few countries in Africa to TMDA. These activities will strengthen the capacity of TMDA to mentor and build capacity of other NMRAs in the region and on the continent, a key role of an RCORE. MTaPS has shared a concept note with WHO and will share it with TMDA and follow-up with a planning meeting.

Implementing a regional approach to support national regulatory authorities to streamline registration of MNCH medicines in countries

In preparation for the SADC in-person joint assessment for two MNCH medicines in the region, MTaPS has been compiling data from the SADC member countries on the MNCH medicines that are pending review and the status of MNCH medicine registration. The team is also holding regular meetings with the SADC joint assessment coordinator to plan the joint assessment of MNCH medicines. MTaPS has drafted an advocacy document for NMRAs to prioritize registration of MNCH medicines, which is under internal review. This will be presented at the SADC regional joint assessment meeting, which is expected in May.

Improving systems for managing and administering oxygen and other medical devices in the respiratory ecosystem

MTaPS is developing a resource document on quality assurance of oxygen, and, following internal review, shared the draft document with a wide group of external stakeholders for review, including USAID, WHO, partners, regulators, and country-level stakeholders. The team then compiled and integrated the feedback from over 25 reviewers from over 14 different organizations/entities into the document. MTaPS held a virtual stakeholder consultation on March 21, which included a discussion of dissemination strategies and application of the document. The activity is now complete with the development of the draft for review.

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

During this quarter, the draft global guidance was approved by USAID and then underwent editorial review and graphic design. The guidance on decentralized procurement is now available, and planning for dissemination through an external webinar is under way. The guidance will be integrated into the GHSC-PSM manual on procuring MNCH medicines, with a planned session with task order 4 countries.

Providing global technical leadership on pharmaceutical systems issues impacting MNCH

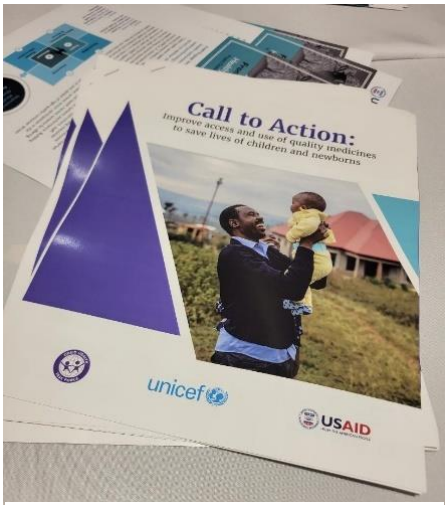
MTaPS provided inputs to the GF team on forecasting commodities for CHWs as they finalized their guidance document on estimating the requirements for procuring non-malaria commodities. MTaPS participated in the day-long GF workshop at the 3rd International Community Health Worker Symposium in Liberia in March, where the guidance was shared with over 35 countries.

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

Supporting documentation of bottlenecks of access to and appropriate use of pediatric amoxicillin (DT or oral suspension) and gentamicin injection and implementation of actionable solutions

MTaPS, in collaboration with GHSC-PSM and PQM+, drafted a call-to-action paper to improve access to and use of amoxicillin and gentamicin and revised the paper in line with feedback from USAID, UNICEF, and other stakeholders. MTaPS and partners then presented the call-to-action paper to the commodities sub-group of the CHTF in January for validation, compiling and addressing feedback received. The call-to-action paper was finalized and is now available on the website of each of the three partners. MTaPS disseminated 200 printed copies of the paper at the 3rd International Community Health Worker Symposium in Liberia in March and made a pitch, which generated interest and conversation.



Amoxicillin call to action paper distributed at 3rd International CHW Symposium. Photo credit: Jane Briggs, MTaPS

Jane Briggs pitching the call-to-action paper to improve access to amoxicillin. Photo credit: Jane Briggs, MTaPS

BEST PRACTICES/LESSONS LEARNED

- Engaging with stakeholders can help gain insights into their perspectives, needs, and concerns and ensure that knowledge products align with their interests and increase their sense of ownership and buy-in. This was demonstrated through MTaPS' experience in developing the advocacy document for NMRAs, together with SADC; the idea for the document came from the NMRAs themselves.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Conduct knowledge exchange on social accountability with Momentum	April 2023
Disseminate the amoxicillin call-to-action paper at the 2nd Global Forum on Childhood Pneumonia in Madrid	April 26, 2023
Plan for twinning visits and study visit for the NMRA selected for support pre-establishment of the RCORE	June 2023
Finalize and receive endorsement for the considerations of regulating MNCH medical devices	June 2023
Finalize and disseminate the document on QA of oxygen	June 2023
Conduct joint assessment of MNCH medicines in SADC region	June 2023
Disseminate the global guidance on best practices for subnational procurement through webinar	June 2023

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

OVERVIEW

USAID advances and supports voluntary FP/RH programs in nearly 40 countries. As a core partner in FP 2030, it is working with the global community to support voluntary modern contraceptive use by everyone who wants it, achieved in part through responsive and sustainable systems providing a range of contraceptives and a supportive policy environment.[9] 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 manufacturer to service sites. MTaPS, with CSL funds, contributes to the Division's goal of promoting the long-term availability of a range of essential FP/RH commodities. The program aims to do this by analyzing and recommending approaches for increasing financing and strengthening supply and logistics services to improve the availability and accessibility of FP/RH commodities.

MTaPS' strategic approach is premised on the notion that implementing a system 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 stakeholders in the community, through targeted advocacy and evidence-based technical assistance, government financing of FP/RH commodities will increase. This will contribute to improved availability of and access to these commodities at service delivery points and in communities as a result of stronger supply and logistics services.

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 that may shape decisions around increasing government financing within its decentralized health system. The PEA is expected to enable 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 at different levels of the system, as well as possible entry points and interventions. The PEA is a useful contribution to the development and implementation of a 10-year supply chain road map plan aimed at supporting the GOU to achieve self-reliance in supply chain and essential medicines and supplies being supported by the USAID/Strengthening Supply Chain Systems Activity. The PEA also provides an entry point for looking at factors that influence financing decisions on essential medicines and health products more broadly, as government-funded FP products are managed through the essential medicines and health products supply system. From the analysis of the desk review and PEA interview data, MTaPS developed a policy brief entitled *Increasing Government Financing and Resource Allocation for FP Commodities and Supply Chain Operations in Uganda: A Political*

[9] OPRH. (2021). Family Planning and reproductive health overview. USAID Office of Population and Reproductive Health. November 2021 Available at: https://www.usaid.gov/sites/default/files/2022-05/2021.11.04_PRH_FP_RH_Program_Overview.pdf

Economy Analysis, which was finalized following a stakeholder validation meeting. MTaPS also developed a PEA methods module that will allow others to apply the streamlined PEA methodology that MTaPS found effective. The policy brief and PEA methods module have been finalized and circulated, and the activity is complete.

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

MTaPS conducted a study in Nigeria and the Philippines on the use of private-sector 4PL providers to understand factors, considerations, and influences and to develop models and advocacy strategies for governments and donors to leverage private-sector supply chain service providers in the public health supply chain. MTaPS engaged its partner organization, PSA, to conduct the study. There were four parts to the study in both countries: a desk review of 4PL providers in public health supply chains, a rapid PEA to understand influences and motivating factors, an operational capabilities analysis, and a cost-benefit analysis. After completing data analysis, MTaPS drafted technical reports for Nigeria and the Philippines and produced two advocacy briefs entitled *Building a More Efficient Public-Health Supply Chain through 4PL*— one for each country. MTaPS collaborated with PSA to facilitate virtual study result dissemination workshops for Nigeria (with more than 45 participants) and the Philippines (with more than 75 participants) in March 2022. Comments and feedback from the workshops were incorporated and used for next steps and implementation. MTaPS also facilitated a webinar for USAID staff in July 2022 on leveraging best practice 3PL or 4PL providers. The objective of the webinar was to share the results of the study and receive practical feedback.

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. It also assessed how these private-sector engagements are operationalized. 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. The analytical framework also enabled MTaPS to gather evidence on how high-income countries mitigate 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 and lessons learned in the context of COVID-19. The paper was disseminated in an internal USAID webinar and a global learning series webinar and is available on the MTaPS website.

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 on unmet FP need at the last mile in Luapula Province, Zambia. MTaPS is equipping 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 last-mile people of childbearing potential
- Understand the impact of the intervention on CHWs' FP inventory management and dispensing
- Understand the key drivers of the inventory management, dispensing, quality service provision, and clinical outcomes associated with the implementation of OpenSRP at the last mile

At the beginning of PY5, the protocol received ethical clearance from the Zambian Excellence Research, Ethics and Science, a private Institutional Review Board, and BU School of Medicine Institutional Review Board. Last quarter, the team completed baseline data collection and identified 221 active CBDs at 40 study sites. The team conducted physical stock counts at each study site and with 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 need and satisfaction with FP counselling. The team has since analyzed the data and produced a baseline report with the findings, which showed that one-third of sampled clients have reported a recent lapse in their FP method, frequent FP stock-outs at health facilities, and generally poor FP stock recordkeeping among CBDs. The findings suggest that the proposed intervention may be appropriate and feasible to help address unmet FP needs at the last mile.

DISABILITY INCLUSION IN THE HEALTH SUPPLY CHAIN WORKFORCE

MTaPS started conducting a study to understand the status of disability inclusion in the health supply chain labor market in LMICs, with the aim of providing recommendations to USAID and its partners on strategies for improving inclusive employment practices in the health supply chain. MTaPS has 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 twice to introduce the activity and discuss landscape analysis. MTaPS has since completed a landscape analysis and drafted a global survey tool to collect data on disability inclusion efforts from health supply chain stakeholders. The team has also started preparations for a one-country case study in Ethiopia.

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

Building on its previous work studying the use of 3PL and 4PLs, in PY4 MTaPS began engaging the government in Nigeria to develop and disseminate a policy on outsourcing logistics services to private-sector 4PLs and/or 3PLs providers. In the previous quarter, MTaPS finalized data collection and analyses to guide the development of a guidance document that lays out how 3PL/4PL provider outsourcing can be operationalized in Nigeria, considering the legal landscape, international best practices, and other country-specific considerations.

QUARTER 2/YEAR 5 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

During this quarter, MTaPS completed data analysis and finalized the baseline report for the impact evaluation of a client, stock, and workflow management application on unmet FP need at the last mile in Luapula Province, Zambia. The 40 study sites in Zambia provide a mix of both short- and long-term modern FP methods, and all sites had at least one type of product out of stock at baseline, with nearly half having three or more individual products out of stock. Only one-third of the sites had at least one product for every one of the five types of FP methods. The team identified 221 CBDs active within the 40 sites during baseline, providing services to a median of 23 clients. Among the sample of 1,139 clients using FP products (575 in the intervention arm and 564 in the control arm), almost 90% were using injectable products: 47.8% used Sayana Press and 39.2% used Depo-Provera. More than 85% of people receiving a resupply of their current method received it from the CBD; the rest received their resupply from health facilities, retail outlets, or other sources. One-third reported a recent lapse in FP methods. The CBDs were frequently stocked-out of male condoms (59.1%), oral contraceptives (62.4%), Depo-Provera (66.2%), Sayana Press (46.7%), and female condoms (83.2%); only 14% of CBDs had a supply of male condoms, oral contraceptives, and any injectable at the same time. Qualitative interviews suggest that the lack of stock on hand was generally attributed to stock-outs at the health facility, which limited the stock CBDs could collect and distribute. While most FP client records were written into improvised registers and few CBDs had printed registers, the majority of records were well organized and maintained. Few CBDs maintained written stock records for FP products, and there was no standardized practice by health facilities in how stock distributed to CBDs was recorded. The findings confirm the appropriateness of the proposed intervention.

CBDs being trained in the use of the OpenSRP application in Luapula Province, Zambia. Photo credit: Tamara Hafner, MTaPS

This quarter, the team also completed development of the application and procurement and configuration of the requisite devices and accessories. On March 27, 2023, the team started intervention implementation with a two-week training of four cohorts of CBDs on the use of the application. This will be followed by a two-week practice period before going live May 1. The team will follow up with monthly supervisory visits and collect endline data six months post intervention.

CBDs at the training on the use of the OpenSRP application in Luapula Province, Zambia. Photo credit: MTaPS

ACTIVITY 2: DISABILITY INCLUSION IN THE HEALTH SUPPLY CHAIN WORKFORCE

MTaPS revised and finalized the global landscape analysis report this quarter. The team also developed a global survey instrument, which is under review by USAID. MTaPS will pilot the instrument and disseminate it to health supply chain workers globally after receiving USAID feedback. MTaPS received Mission concurrence to conduct a case study on disability inclusion in the health supply chain workforce in Ethiopia and is preparing to recruit a consultant to support the activity.

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

The team successfully prepared for and facilitated the learning and advocacy workshop in early February in Nasarawa, Nigeria, with 22 participants from the MOH National Product Supply Chain Management Program (NPSCMP), states, and implementing partners. The workshop allowed discussion and agreement on what engagement of best practice 3PL and 4PL service providers means and its advantages in supporting and strengthening public health supply chain management in Nigeria. In addition, the workshop helped in collecting and discussing more information on the context (especially from the four states that participated in the workshop) and feedback on the draft guidance document developed to operationalize the engagement of 3PL and 4PL service providers. The team incorporated feedback from the workshop into the draft guidance document and shared it with USAID for input. MTaPS incorporated USAID feedback into the document and submitted it to the MOH. MTaPS has developed a proposal for the approach and content for the second workshop, which is with NPSCMP for review and feedback. MTaPS also developed a list of criteria for the selection of a state for the pilot. However, selection of the pilot state has been a challenge as the states that fulfill the technical criteria for piloting

have security issues; MTaPS is engaged in discussion with USAID and NPSCMP to determine the best way forward on selecting the pilot state and implementing the pilot.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity & Description	Date
Activity 1: Evaluating the efficacy of using a digital consumption tracking and workflow management tool to decrease unmet need and foster contraceptive continuous use at last mile point of care ▪ Finalize training report ▪ Complete intervention initiation by releasing the live version of the application to the CBDs ▪ Proceed with monthly supervisory visits	May 2023
Activity 2: Disability inclusion in the health supply chain workforce ▪ Recruit consultant and initiate case study in Ethiopia ▪ Conduct global survey and analyze data ▪ Reconvene TWG to brief it on the findings	June 2023
Activity 3: Finalize the selection of the pilot state ▪ Finalize the operational guidance document based on final feedback from the MOH NPSCMP ▪ Start engaging the pilot state to implement the final version of the operational guidelines ▪ Conduct a second workshop to discuss implementation progress and troubleshoot any challenges	June 2023

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 health system strengthening, 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 overall program goal and objectives. Through the Cross Bureau portfolio, MTaPS works to develop evidence-based approaches and tools and identify best practices in PSS that contribute to addressing emerging health problems. MTaPS collaborates with regional and global stakeholders to shape the norms and discourse on pharmaceutical systems and to coordinate efforts at identifying and promoting 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, which aimed to help streamline regulatory harmonization program implementation and strengthen the impact and sustainability of program results and outcomes.

In collaboration with PQM+, 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 a guidance document to promote and guide adoption of the standards in LMICs was finalized. 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.

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. Previously, MTaPS convened an 11-member PSS technical advisory group of donor governments, foundations, academic institutions, and public-private partnerships to publish a paper in the *Journal of Pharmaceutical Policy and Practice* on the

importance of integrating PSS into global health programs. The program also conducted two peer-to-peer learning exchanges: one on medical products pricing strategies and a second on conflicts of interest prevention and management in national pharmaceutical committees. Together, the 2 learning exchanges engaged approximately 60 government officials from over 30 countries. MTaPS has submitted 81 global conference abstracts and 15 manuscripts for peer review 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 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 (PE) using the SHA2011 framework. The team drafted a PE tracking guide and, following pilots in two countries, MTaPS developed two policy briefs that will serve as resources for countries to capture population-per-capita PE per disease or drug therapeutic class more accurately.

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 integration of IPC/WASH critical conditions into the quality of care and quality improvement tools and processes.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

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

During this quarter, MTaPS worked with the AMRH Secretariat and the Gates Foundation on the implementation plan and funding requirements for the continental reliance framework development and implementation. A key decision has been to develop and pilot a model of the reliance framework between the EAC and IGAD regional economic regions with support from the Gates Foundation. The reliance framework will facilitate sharing of regulatory decisions on medicines registration and expedite entry of products in the EAC/IGAD regions. Expedited quality assessment and registration of medical products in the region will enable quick access to medicines and other health products required to achieve effective treatments for health conditions, leading to improved health outcomes and better quality of life for the people. The reliance framework will form part of the efforts to operationalize AMA given that the two regions are part of the regional economic communities that will feed into AMA.

MTaPS and PQM+ met several times this quarter with the AMRH Secretariat and IMS Technical Committee (TC) to discuss the progress on the RIMS digitalization roadmap development as well as the IMS TC's 2023 work plan. It was decided that instead of developing a roadmap, MTaPS/PQM+ will

support the development of a strategy for RIMS digitalization for the AMA's reference upon the agency's full operationalization. MTaPS, PQM+, USAID, and AMRH also discussed the status of AMA operationalization, and the transition of AMRH assets to AMA to help align MTaPS' support with the AMRH/AMA work plans. In late March, MTaPS held a meeting with the AMRH IMS TC to discuss the criteria for selection of model electronic regulatory IMS. MTaPS is currently engaging an expert to draft the strategy for digitalization of regulatory IMS.

ACTIVITY 3.3.1: MEASURING PSS, INCLUDING ACCESS TO MEDICINE

During this quarter, MTaPS finalized the Nepal and Bangladesh country reports and began planning dissemination activities to wrap up the PSS pilot in all four countries (Bangladesh, Nepal, Tanzania, and Uganda). The team is planning a virtual stakeholder workshop in Nepal and is planning in-person engagements in Tanzania and Uganda for late April. The team is also coordinating with the MTaPS Bangladesh team on the engagement strategy. The software developer for PSS Insight began work in January. The developer finalized the SRS with MTaPS' feedback, and the team clarified the system design and functionality, data collection, data analysis, data visualization, and reporting requirements. The software developer has created several test versions of the tool; the data collection function is near completion, and dashboards for data visualization are mock-up and expected to be completed soon. The web-based version of the tool will allow country teams to identify key informants and solicit their inputs using system-generated forms and enable passive data collection through interoperability with existing data capture systems. Dashboards will be automatically generated and easy to configure and share for decision-making, reporting, and advocacy for continued support for PSS.

ACTIVITY 3.3.2: PSS 101 COURSE

MTaPS made the final preparations for the February delivery of PSS 101 through USAID University for USAID staff globally, confirming subject matter expert speakers and alignment with PQM+. Course delivery was advertised through MSH and US Pharmacopeia. The team conducted the February PSS 101 delivery with 15 participants (6 male, 9 female) who provided positive feedback on the focused nature of the material and access to many subject matter experts. The team also began internal preparations for the June delivery. The systematic set of tools and resources curated and refined for each delivery of PSS 101, as well as the administrative and technical materials, are ready for handover. The first AMR module technical group meeting took place early this quarter, with the process agreed upon and alignment with PQM+ and USAID confirmed. The team confirmed the scope and objectives and then developed the draft AMR storyboard. The GHeL PSS 101 and Good Governance courses saw 245 and 151 certificates earned this quarter, respectively.

ACTIVITY 3.3.3: EQUIP LOCAL INSTITUTIONS WITH PSS LEARNING RESOURCES

MTaPS undertook intense marketing this quarter for the East Africa and Southeast Asia PSS Skills Exchanges. The team also developed technical support materials on each of the nine PSS topics covered. MTaPS conducted the East Africa PSS Skills Exchange from February 28 to March 2. More than 450 individuals registered for the East Africa PSS Skills Exchange, with over 160 attendees each of the 3 days (approximately 2/3 male and representing 40 countries). A total of 124 participants attended all 3 sessions, and over 40 organizations applied for mentoring. The team hosted the Southeast Asia PSS Skills Exchange from March 22 to March 24. Nearly 250 individuals registered for the Southeast Asia PSS Skills

Exchange, with an average of 60 participants attending each day. Participants at both regional PSS Skills Exchanges demonstrated great interest and were very engaged in the sessions.

ACTIVITY 3.3.4: MTAPS CLOSEOUT EVENT/PSS LEARNING SERIES WEBINARS

MTaPS shared the learning series concept note with USAID and received approval. The learning series includes a mix of webinars and in-person panels and workshops, culminating in a half-day symposium to be integrated in the program's other close-out events. Planning is under way for two webinars, the first on MNCH (week of May 15) and the second on AMR containment (week of June 5). MTaPS has drafted a blog to accompany the MNCH webinar and shared it with USAID MNCH technical leads for feedback. The team has developed a run of show and reached out to panelists to confirm their participation. Outreach to the panelists for the AMR webinar has also begun and the team plans to draft a blog in April to accompany that webinar. Additionally, MTaPS submitted a proposal to the SAPICS organizing committee for their annual conference slated for June 11-14, 2023, in Cape Town, South Africa. The proposal included a PSS skill-building workshop and a panel on the centrality of governance and medicines regulation in building efficient adaptive health supply chains. If the proposal is accepted, the panel and the workshop will be two events in the learning series.

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

This quarter, MTaPS held a kickoff meeting with the Bangladesh Mission on the HPHC tool implementation and began recruiting a consultant to support the activity in Bangladesh. After some delays in engaging available candidates that meet the Mission's requirements, the team successfully engaged a consultant with an April 5 start date The MTaPS team also participated in the USAID activity lead's orientation on the HPHC tool and framework this quarter, which will allow the team to effectively coordinate with the USAID activity lead and orient the consultant. No response was received from Côte d'Ivoire regarding Mission concurrence, so the team decided to move forward with Cameroon. The team began discussions with the Cameroon Mission and has requested that the COR team reach out to the Mission to facilitate further discussions and address clarifications requested by the Mission.

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 completed data collection and analysis in Kenya and Côte d'Ivoire. Data collection is ongoing in Nepal. The team drafted the study report (based on findings from Kenya and Côte d'Ivoire), developed a presentation for a debriefing meeting (still pending) with the Kenya Mission, and initiated plans for a meeting with the technical working group to get their feedback. In Kenya, MTaPS found five distinct but connected units at the national level covering medicine regulation; procurement, warehousing, and distribution; medicines selection and rational use; and pharmacy practice regulation, each with varying levels of autonomy and different responsibilities. Kenya's Division of Health Product and Technologies plays a key coordinating role providing guidance to the county governments on health products management and has been successful in mobilizing domestic resources to drive policy development and implementation.

The team has identified Rwanda as a candidate country for MOH support, as MTaPS is leading advocacy for the creation of an NPSU there. The team shared the concept/advocacy note—based on preliminary findings from Kenya—with the Rwanda team for review before initiating Mission and government engagement. The note describes the structure of the proposed pharmacy unit/directorate to be established at the MOH and the terms of reference for the required staff. The methodology will be finalized pending the case study analysis and ongoing discussions with the Rwanda team.

ACTIVITY 2.4.1.2: OPTIMIZING PHARMADEX AND PVIMS TO REFLECT COMMON STANDARDS, ADD VACCINES AND MEDICAL DEVICES, AND INCORPORATE EMERGENCY USE AUTHORIZATIONS AND MONITORING/OVERSIGHT

MTaPS finalized the interoperability deliverable this quarter; this activity is now complete. The team also submitted an abstract entitled "Digitalizing National Medicines Regulatory Authorities" for oral presentation to the Africa Digital Health Summit (ADHS), scheduled for June 22-23, 2023, in Lagos, Nigeria.

ACTIVITY 5.4.1: TESTING BEHAVIORAL NUDGES FOR AMS

The team collected baseline prescription data from four of the five study hospitals this quarter. MTaPS received approval from the Makerere Research Ethics Committee (REC) and from the MOH to include Mengo Hospital as the new study site. The team shared the approved amended protocol and MOH administrative clearance with the Uganda National Council for Science and Technology (UNCST). The consultant submitted the required REC, MOH, and UNCST materials to Mengo Hospital's IRB to obtain approval to initiate interviews and quantitative data collection in the hospital. Upon receiving approval from the hospital, the team conducted key informant interviews from the facility. Since the total sample size in the baseline data collected from the four hospitals was relatively small, the team collected a second round of baseline data from those hospitals to increase the sample size. Second-round key informant interviews began from among the pool of first-round interviewees.

Deloitte drafted intervention options based on behavioral interventions literature and insights from the Phase 1 key informant interviews. The consultant and MTaPS team reviewed the suggested intervention options and provided input, taking into consideration the feasibility of their implementation in the local Ugandan context.

MTaPS and Deloitte also provided a progress update to the USAID COR team in mid-March, briefly describing the quantitative and qualitative data gathering progress thus far, proposed intervention design, lessons learned to date, and immediate next steps.

EXTENDED YEAR 3 ACTIVITIES

ACTIVITY 3: ROAD MAP FOR HTA INSTITUTIONALIZATION

MTaPS finalized the support it had been providing to Ethiopia on HTA Institutionalization. In addition, the team shared the draft canvas with USAID and integrated feedback into the document. The team continues to await feedback on the manuscript submitted to the *International Journal of Technology Assessment in Health Care* in late December.

ACTIVITY 7: INVESTIGATING THE USE OF INFORMATION FROM PMIS FOR EVIDENCE-BASED DECISION-MAKING

MTaPS has experienced significant procedural delays with the ethics review process in Mozambique. The team has decided to move on to an alternative option and is developing a concept note for the new proposed activity and deliverable. The team will share the concept note with USAID for review.

BEST PRACTICES/LESSONS LEARNED

- To maximize engagement with a wider range of organizational level stakeholders, it is important to move beyond general social network marketing and target communities of practice and regional groups engaging in pharmaceutical systems development. With this approach, MTaPS has seen increased participation in knowledge sharing activities, such as the PSS 101 course for USAID staff and the equipping of local institutions' activities.
- Strategies to collaborate with regional organizations need to consider the organizational needs and operational procedures to ensure alignment with program objectives. A case in point is the support provided to the regional networks under the AMRH initiative.
- Harmonization of medical products regulations takes some time, so it is important to work with willing partners and regional networks who can serve as champions and help to sustain efforts beyond the life of the program.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 2.4.6: Support AUDA-NEPAD in the ongoing creation and operationalization of the AMA ▪ Initiate documentation of the draft continental reliance framework and arrange stakeholder consultations ▪ Finalize selection of an expert and initiate the process of drafting the strategy for digitalization of RIMS	April 2023
Activity 3.3.1: Measuring PSS, including access to medicine ▪ Finalize pilot in Tanzania (May 2023) ▪ Finalize pilot in Uganda, conduct in-person dissemination workshop (May 2023) ▪ Finalize pilot in Nepal, conduct virtual workshop (May 2023) ▪ Finalize pilot in Bangladesh, conduct in-person dissemination workshop (May 2023) ▪ Finalize and launch web-based tool (June 2023) ▪ Prepare technical report on PSS Insight pilots (June 2023)	May–June 2023
Activity 3.3.2: PSS 101 course ▪ Globally market GHeL PSS courses to drive engagement ▪ Move ahead with Alpha version of the AMR course ▪ Conduct preliminary advertising and engagement for the proposed June delivery of the USAID University PSS 101 course	April–June 2023
Activity 3.3.3: Equip local institutions with PSS learning resources ▪ Move ahead with East African and East Asian organization mentoring	April–June 2023
Activity 3.3.4: MTaPS closeout events/PSS Learning Series webinars ▪ Finalize plans and conduct the MNCH and AMR webinars ▪ Prepare for participation in SAPICS pending proposal acceptance	June 2023
Activity 3.3.5: HPHC tool implementation ▪ Onboard consultant for the Bangladesh implementation ▪ Conduct stakeholder mapping and data collection in Bangladesh ▪ Continue engagement with the Cameroon Mission regarding concurrence for tool implementation	June 2023

Activity and Description	Date
Activity 3.3.5: Developing a methodology for assessing the roles on NPSUs and their capacity to fulfill their mandate ▪ Debrief the Kenya Mission on the study findings ▪ Meet with the technical working group, incorporate their feedback into the report, and draft guidance on recommended structure and minimum mandate and functions of NPSUs	June 2023
Activity 5.4.1: Testing behavioral nudges for AMS ▪ Collect baseline quantitative data from Mengo Hospital ▪ Share intervention options with USAID for feedback, incorporate their feedback, and finalize the interventions ▪ Plan and carry out activation meetings with the five facilities for introducing the proposed interventions once finalized; goal will be to generate momentum and interest in the interventions ▪ Implement the interventions in the five hospitals	April–May 2023
Activity 3: Roadmap for HTA institutionalization ▪ Respond to comments on manuscript pending response from journal editors	June 2023
Activity 7: Investigating the use of information from PMIS for evidence-based decision-making ▪ Share concept note for a manuscript on the institutionalization of open-source PMIS for review	April 2023

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 ensure sustainable and equitable access to safe, effective, quality-assured medical products and related services 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 different MTaPS portfolios in discussions of gender activities and areas of possible collaboration and learning. In addition, 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 in year 4 was only held as needed 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 to assist the entire program in measuring progress against these two broad indicators.

Three key capacity building documents and presentations are important to highlight 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 activities' inclusion in third-year work plans. Lastly was a presentation entitled "Transforming Health and Pharmaceutical Policies to be Gender Inclusive" given by the MTaPS gender advisor during one of the bi-weekly 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 toward 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 blogs 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 held a knowledge exchange series and staff meeting presentations for the contracting officer's representatives (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 and presentations, and contributions to the journal article "Point prevalence survey of antibiotic use across 13 hospitals in Uganda," MTaPS conducted one-on-one meetings with country teams to educate, mentor, and assist in developing sex and gender activities for year 4. Finally, MTaPS undertook technical reviews of the year 4 work plans 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 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 senior gender advisor gave knowledge exchange and webinar presentations to staff, the COR, and partners and presented a module in PSS 101 for USAID staff. MTaPS led 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" at the 2022 Global Health Security Conference in June/July 2022 in Singapore. Following the conference, MTaPS published a Gender Gist blog 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 e-learning modules developed in Q3 required additional knowledge checks and pre/post-test questions.

In year 5, we will capitalize on normalizing sex and gender impacts as a cross-cutting issue in MTaPS countries and across PSS activities. A new task order (TO) is under development to expand efforts in the Philippines and Nepal. One of the most important successes for this year to date is the inclusion of sex and gender concepts into Tanzania's NAP-AMR 2023-2028. The highly successful Gender Gist blogs will continue with a blog published in the first quarter:

- 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/

Image credit: Missing the Forest for the Trees - OSC Ltd.

MTaPS' year 5 gender work focuses on finalizing/publishing technical documents like the MIS guidance and Philippines workforce development plan written during Q1. 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. The PSS 101 course, like the previous year, included a sex and gender section with participatory exercises to illustrate sex and gender concepts in the small groups.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

During this quarter, the gender advisor led a sex/gender section in the PSS 101 course for East African skills exchange and the virtual pharmaceutical systems skills exchange for Southeast Asia. To finalize the MIS report, MTaPS held meetings with Bangladesh and the MIS technical advisors to determine the feasibility of adding in sex and gender fields to all MIS supported by MTaPS. Participation in a webinar entitled "Integrating Gender in Health Information System Strengthening: Experiences from Burkina Faso, Ghana, and Indonesia" helped MTaPS understand where other countries have or have not appropriately addressed sex and gender variables in MIS. The meetings revealed that gender is being used incorrectly based on SAGER guidelines, and that definitions of sex and gender terms and sex-disaggregation capabilities of systems are not consistent despite MTaPS' agreement to conform to USAID requirements for sex-disaggregated data. Working with the MIS technical advisors, the gender advisor contributed to finalization of the guidelines for MIS. Additionally, MTaPS reviewed and edited the animation of the Philippines sex and gender 101 e-learning module from a gender perspective. This quarter saw the publication of an opinion paper in the journal Frontiers in Antibiotics (Gaps in data collection for sex and gender must be addressed in point prevalence surveys on antibiotic use), drafting of a new Gender Gist blog, and finalization of the PY5Q1 gender section for the quarterly report.

BEST PRACTICES/LESSONS LEARNED

- Publications in journals to highlight sex and gender concepts in PSS is important to normalize these concepts across a broader community and legitimizes the push to incorporate this cross-cutting issue into PSS activities.
- Incorporating sex and gender concepts into blogs that are easy to read helps implementers understand why sex and gender integration is important.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Develop a year 5 TO for gender activities	April 2023
Drafting/editing/finalization of a new Gender Gist blog	May 2023
Participation in biweekly staff, quarterly technical, and expanded COR meetings	April–June 2023
Animation of sex and gender 101 e-learning course finalized	June 2023
Meet with Nepal and Philippines teams to discuss sex/gender activities in the TO	June 2023
Begin Nepal sex/gender activities	June 2023

4. PROGRESS BY COUNTRY

A. BANGLADESH

FIELD SUPPORT

OVERVIEW

The overall 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 in support of the Government of Bangladesh's (GOB) health objectives and commitment to achieving UHC. MTaPS' overall strategic approach is to support the GOB to strengthen pharmaceutical services and the supply management system. MTaPS is providing TA MOHFW to build institutionalized and sustainable technical capacity for pharmaceutical system strengthening.

CUMULATIVE PERFORMANCE TO DATE

With MTaPS' technical assistance, MOHFW developed a strategic plan for coordinated procurement, including mapping procurement entities, their practices, and key actions. MTaPS also developed the Table of Organization and Equipment (TOE) for health facilities with 10- to 500-bed capacity (tertiary level) and updated its reference prices. The program also updated the full specifications of the medical surgical requisites (MSRs) list and assisted the MSR List Updating Committee to develop a strategy to regularly assign and review standard reference prices to the updated list. MOHFW has started using a performance indicator measurement table developed by MOHFW, with assistance from MTaPS, for procurement oversight bodies at MOHFW and the DGHS. The bodies will meet quarterly to assess areas for improvements in key procurement functions. The first meeting to document issues for a baseline was held February 25, 2033. These interventions will ensure availability of quality assets for diagnosis and treatment at health facilities and save lives.

DGFP allocated funds to their fourth-sector program Operational Plan (Procurement, Storage, and Supply Management–Family Planning) for managing the DGFP eLMIS. The UIMS and WIMS were successfully incorporated into the eLMIS to ensure real-time logistics transactional data. MTaPS provided TA in facilitating technical sessions in the training on supply chain management and troubleshooting the UIMS and WIMS for 1,138 sub-district-level officials (219 women, 919 men) on better management of supply chain functions, including streamlined functionality of the two inventory management systems. MTaPS also provided TA to FP warehouses to ensure timely resupply of FP commodities, thereby maintaining stock-out rates below 1% at service delivery points during the quarter. MTaPS introduced the electronic Asset Management System (eAMS) in all 61 DHs across the country. The eAMS helps in the real-time tracking of assets and makes information available for effective management of programs and facilities for evidenced-based logistics management and monitoring.

MTaPS assisted the NTP in accurately recording and reporting quality TB data using the e-TB Manager digital platform, making the system of reporting fully paperless nationwide. The system server has been

transferred from MTaPS to the DGHS MIS and is being managed by local developers. e-TB Manager has been enhanced for electronic reporting of aDSM; for interoperability with the JANAO app to capture data of patients visiting private practitioners and for developing a dashboard for indicator reporting. In collaboration with NTP, MTaPS completed a peripheral storage system assessment for TB medicines at government health facilities and at NTP's IPs' stores, where options for storage integration were analyzed and a phased transition plan was proposed. Based on the assessment's recommendations, NTP is currently improving the peripheral-level storage system by implementing said transition plan, thereby ensuring the availability of quality products for better programmatic management.

Major achievements in regulatory system strengthening at DGDA include development of an inspection strategy to ensure good pharmacy practices in PY 1 and PY2, an electronic inspection and licensing system for pharmacies in PY3, and the CAPA plan; establishment of an independent and functional QMS; and the convergence of technical standards and regulatory guidelines along with common technical document (CTD) dossier evaluation to improve good regulatory practices in PY4. In PY5, MTaPS assisted with development and dissemination of the five-year strategic plan (2022-2026). For strengthening PV, in PY3, MTaPS facilitated DGDA's scaling up of PV to 30+ government and private health facilities. In the latest WHO GBT assessment, MTaPS assisted DGDA in achieving the highest score in PV. In PY5, MTaPS assisted DGDA with evaluating 34 AE reports and recommended evidence-based actions like updating the patient information leaflet and disseminating safety concerns for carbamazepine, ketorolac tromethamine, methotrexate, and rituximab for ensuring medicine and patient safety through regulatory compliance.

MTaPS worked with MOHFW and other stakeholders to explore options for supporting implementation of the pharmaceutical-related components of the Bangladesh Health Care Financing strategy (2012-2032), including expenditure tracking of pharmaceuticals; a situational analysis report was developed. MOHFW's HEU validated the questionnaire, methodology, and data collection monitoring in the field to observe data collection activities physically with MTaPS assistance for the pharmaceutical expenditure tracking exercise. Some household data available from HEU (collected during another survey funded by the Global Fund) was also used. The organization, coding, and analysis of the data might delay the process to the end of the May instead of the earlier timeline of March 2023.The tracking will be followed by training the national health accounts team and other HEU personnel on the whole process of tracking pharmaceutical expenditures; disseminating the report and a policy brief to respond to the needs of policymakers; and encouraging the use of data to inform decision making.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

Activity 1.1.1: Continue to assist MOHFW and DGHS to address issues with procurement processes and documents of different procuring entities to improve efficiency (quality improvement). On February 25, 2023, USAID MTaPS facilitated a workshop on tracking procurement efficiency by using performance monitoring tools to share and analyze procurement issues found in the documents submitted by procuring entities (PEs). During the training, participants identified gaps that were mainly related to compliance with PPR 2008 in the annual procurement plan submission, including revision, post-qualification compliance during evaluation, and contract management. Possible solutions to

improve procurement effectiveness and efficiencies were discussed. The identified solutions will ensure timely availability of health products for diagnosis and treatment to save lives.

Participants discuss various issues regarding procurement performance in the workshop held at CIRDAP Auditorium, Bangladesh, February 25, 2023. Photo Credit: Quazi Shahreen Haq, MTaPS

More than 50 representatives from various PEs participated in the workshop. The participants acknowledged USAID MTaPS' TA and noted their appreciation for MTaPS' interventions to strengthen the MOHFW procurement system. Similar workshops will be held in upcoming quarters to identify issues, discuss remedies, and document improvement in terms of number of issues and timeline.

Activity 1.2.1: Collaborate with DGFP to implement the transition to the online inventory management system. USAID MTaPS facilitated technical sessions on supply chain management and troubleshooting training organized by the Logistics and Supply (L&S) Unit of DGFP. Participants refreshed their knowledge and skills in supply chain management in general and on the online inventory management system and data analysis in particular, which will help them better manage commodities and other logistics functions for proper decision making. The aim of DGFP's eLMIS is to ensure that essential medicines and supplies are available to those who need them, eliminate waste, reduce the cost of health care, and improve the transparency and accountability of the health care system, all of which are translating into a significant positive impact on the health of the population.

Activity 1.2.2: Institutionalize eAMS use at DHs. With MTaPS' TA, information for approximately 830 assets was entered and 5 tickets raised in the eAMS during this quarter. The eAMS currently has information on 8,977 assets, such as keeping locations tracking, functional status, repair and maintenance history, and availability. Managers of DHs can contribute to effective procurement planning for medical equipment by analyzing asset information and initiating the necessary repair, management, and maintenance of assets. From a transitioning perspective, MTaPS conducted a two-day TOT for selected officials of the MIS unit of DGHS; they will organize cascade training for primary-level HFs as part of scaling up the system with their own resources.

Activity 1.3.1: In collaboration with NTP, roll out eLMIS for TB commodities in all subdistricts. MTaPS has provided TA to the NTP in organizing 15 batches of training on eLMIS for TB commodities

for the Chattogram division. Currently, the system is scaled up to 317 upazilas (out of 484) of 41 districts (out of 64) of 5 divisions (Mymensingh, Rangpur, Rajshahi, Khulna, and Chattogram) in the country. After completion of the training in the Chattogram division, NTP issued an office order to all trained facilities urging them to use this eLMIS for all TB logistic management record keeping and indenting.

Activity 1.3.2: Institutionalize e-Learning courses of the relevant directorates of the MOHFW. An official notification from DGFP is expected to be circulated by March 31 among DGFP officials to attend the e-Learning course on basic logistics management delivered through the government platform. This e-Learning course will provide an opportunity for new staff to learn basic logistics management and for existing staff to refresh their knowledge. This course will be useful for people working in medicine stores to increase their efficiency to improve the availability of quality medicine.

OBJECTIVE 2: PHARMACEUTICAL REGULATORY SYSTEMS STRENGTHENED

Activity 2.1.1: Continue to provide TA in developing and implementing the CAPA plan in selected functions as per WHO formal assessment report for DGDA to contribute to increasing the score on WHO GBT. MTaPS supported DGDA in developing and disseminating its annual publication for 2021-2022 across the country to ensure public access to medicine regulatory information. To create a culture of reporting AEs, MTaPS guided DGDA in making awareness, coordination, training, and health care site visit plans and assisted in their implementation as recommended by WHO. Development of a draft memorandum of understanding between CDC and DGDA was supported as part of scaling up PV to public health programs (PHPs), complying with the WHO GBT assessment recommendation. The flow for the application submission segment of DGDA-RIMS (OpenRIMS) is well accepted by marketing authorization holders (MAHs) and the business process of the system is accepted by WHO (https://dgda.openrims.org) with some minor feedback on the process. MTaPS is revising the process accordingly, and it is due to be complete by May 2023. This is expected to improve the efficiency and effectiveness of the regulatory system, enhance compliance levels, and allow DGDA to effectively undertake its regulatory mandate through increasing scores on WHO GBT, especially RS05 (QMS), VL04.01, VL04.06, VL05.01, and MA06.01, and strengthening the regulatory system.

Activity 2.2.1: Continue to provide TA for generating evidence-based regulatory decisions to ensure medicine safety. MTaPS provided support to conduct 1 ADRM (294 AE and 78 aDSM reports) and 1 TSC (18 AE and 5 aDSM reports) workshop in this quarter to evaluate reports received October–December 2022. A draft PV newsletter supported by MTaPS is going through the DGDA review process. A demonstration of the Pharmacovigilance Monitoring System (PViMS) was presented to DGDA, and it was received positively. The audience appreciated the demonstration and provided valuable feedback, including user profile creation for MAHs, editing options, and a few other technical rearrangements that will be addressed before conducting a UAT tentatively schedules for May 2023 for implementing by Q3 PY5.

OBJECTIVE 3: SYSTEMS FOR EVIDENCE-BASED DECISION MAKING INSTITUTIONALIZED

Activity 3.1.1: Assist the NTP in implementing components of the e-TB Manager transition plan. MTaPS participated as the resource person in the training organized by BRAC for the newly recruited staff. This training aimed to ensure sustainability of the e-TB Manager transition by capacitating

nongovernment IPs. In collaboration with NTP, MTaPS organized an orientation on electronic reporting for 80 physicians and e-TB Manager users (16 women and 64 men) on aDSM. This is expected to improve the reporting of aDSM events contributing to improved TB drug safety. MTaPS participated in the workshop organized by NTP in collaboration with USAID TB Data Impact Assessment and Communication Hub. The workshop discussed TB data analysis and decision making at the national level, following NTP's notification to the Dhaka division to have completely paperless TB reporting as of April 1, 2023. This will shorten data process times and increase the speed at which decisions can be made to improve the TB control program based on this data. MTaPS visited five underperforming sites (Gandaria, Pallabi, Uttarakhan, and Dakshinkhan urban sites and the Nawabganj upazila health complex) to provide on-the-job assistance to e-TB Manager users. This is expected to improve the quality of capturing of TB patient information in the system, thereby ensuring better programmatic management by NTP.

Activity 3.2.1: Develop handover documents for major IT systems supported by MTaPS in consultation with the respective GOB units. MTaPS has created a comprehensive matrix that includes all relevant information and resources to be included in the handover document of the major MTaPS-supported IT system. This matrix will help ensure that government stakeholders have a thorough understanding and knowledge to continue operating the system beyond MTaPS. MTaPS has initiated collaboration with stakeholders to identify and secure resources for transitioning its systems. Discussions have already taken place with DGHS MIS, DGDA, and CMSD regarding the phasing out of MTaPS in September, as well as strategies to support their efforts to ensure the system's ongoing maintenance and support.

OBJECTIVE 4: NO ACTIVITIES WERE PLANNED FOR THIS OBJECTIVE UNDER THE FIELD SUPPORT WORKPLAN.

OBJECTIVE 5: PHARMACEUTICAL FINANCIAL RESOURCE ALLOCATION AND USE OPTIMIZED

(PY4) Activity 5.1.1: Continue to support HEU in conducting pharmaceutical expenditure tracking for selected MNCH commodities. HEU validated the questionnaire and methodology for the pharmaceutical expenditure tracking exercise. MTaPS participated in the validation process. MTaPS completed the data collection in March 2023 and started formatting, organizing, and mapping data, including data from households that is readily available from HEU from the recent disease-specific survey funded by the Global Fund. The activity will be followed by training HEU in the process.

BEST PRACTICES/LESSONS LEARNED

- Implementation of the eAMS at the DHs and its rollout to the primary-level health care facilities in Bangladesh (around 400 upazila health complexes) demostrated that better management of assets (e.g., equipment) at the sub-district level can contribute to improved decision making on rational procurement, proper resource allocation and timely maintenance, reducing the potential misuse of the assets and saving invaluable government resources.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Continue to assist MOHFW and DGHS in addressing issues with procurement processes and documents of different PEs to improve efficiency (quality improvement).	April–June 2023

Activity and Description	Date
▪ Arrange a workshop on quality improvement using procurement performance tools by MOHFW/DGHS. ▪ Follow-up with issues discussed to prevent repetition.	
Activity 1.2.1: Collaborate with DGFP to implement the transition to the online inventory management system. ▪ Provide TOT; roll out DGFP eLMIS in selected warehouses and upazila family planning stores.	April–June 2023
Activity 1.2.2: Institutionalize eAMS use at DHs. ▪ Visit DHs to assist eAMS users in updating asset entry and provide necessary troubleshooting support. ▪ Assess the effectiveness of the eAMS in the chosen DHs.	April–June 2023
Activity 1.2.3: Assist CMSD in implementing the comprehensive eLMIS. ▪ Continue troubleshooting support on CMSD eLMIS to ensure smooth functioning.	April–June 2023
Activity 1.3.1: In collaboration with NTP, roll-out eLMIS for TB commodities in all sub-districts. ▪ Continue scaling up eLMIS for TB commodities (15 batches of training have been planned for this quarter)	May–June 2023
Activity 1.3.2: Institutionalize e-Learning courses of MOHFW's relevant directorates. ▪ Field test e-Learning on eTB Manager and publish Muktopaath platform. ▪ Complete finalization of videos of procurement basics e-Learning course.	April–June 2023
Activity 2.1.1: Continue to provide TA in developing and implementing CAPA plan in selected functions as per the WHO formal assessment report for DGDA to contribute to increasing score on WHO GBT. ▪ Support DGDA in addressing the observations of the WHO external assessment as per CAPA plan, including electronic product registration in DGDA-RIMS (OpenRIMS).	April–June 2023
Activity 2.2.1: Continue to provide TA for generating evidence-based regulatory decisions to ensure medicine safety. ▪ ADRM workshop on AE case recording, summary preparation AE assessment and evaluation, including aDSM reports. UAT for PViMS.	April–June 2023
Activity 3.1.1: Assist NTP in implementing relevant components of e-TB Manager transition plan. ▪ Train on data quality management and data use for master trainers and data quality managers on e-TB Manager; refresher training for users (low-performing sites).	April–June 2023
Activity 3.2.1: Develop handover documents for major IT systems supported by MTaPS in consultation with the respective GOB units. ▪ Continue to finalize the handover documents for all major IT systems currently being supported.	April–June 2, 2023
Activity 5.1.1: Assist HEU in building capacity on pharmaceutical expenditure tracking for MNCH commodities. ▪ Develop training modules based on the standard processes of pharmaceutical expenditure tracking	April–June 2023

Table 2. Quarter 2, FY23, Activity Progress, Bangladesh—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.1.1: Continue to assist MOHFW and DGHS in addressing issues with procurement processes and documents from different PEs to improve efficiency (quality improvement) **Activity description:** MTaPS will facilitate discussion of the tool developed to monitor procurement performance of PEs on a quarterly basis.	Obj 1 SO 1.1	The activity was to include a workshop each quarter and discussing issues with the procurement documents submitted to the oversight bodies for review and vetting as appropriate. MOHFW organized one workshop in the last quarter for baseline information. Follow-up workshops will focus on tracking improvements, if any.
Activity 1.2.1: Collaborate with DGFP in transitioning to the online inventory management system **Activity description:** MTaPS will work with DGFP to conduct TOT on the online version of the DGFP eLMIS as part of the transition from offline to online.	Obj 1, SO 1.	DGFP organized three rounds of training on SCM and troubleshooting where MTaPS facilitated technical sessions. The objectives were to: ▪ Ensure sufficient commodities at the service delivery point ▪ Encourage to use data protocol for decision making ▪ Show the process of installing the offline version of inventory tools ▪ Review the upcoming online-based DGFP eLMIS 78 participants (62 men, 16 women) from different levels of the program attended this training
Activity 1.2.2: Institutionalize eAMS use at DHs. **Activity description:** Monitor eAMS implementation progress, conduct regular monitoring visits, and provide needed technical support to system users. MTaPS will visit 20-25 DHs next quarter.	Obj 1, SO 1.2	▪ In the technical working committee meeting, it was decided that DHs, with assistance from MTaPS, should identify their shortcomings and solve them by March 2023. ▪ The joint monitoring teams visited the targeted DHs by using a monitoring checklist. ▪ Assessment in 10 DHs has been completed to identify eAMS functionality. ▪ MTaPS facilitated technical sessions in a two-day TOT on eAMS, organized by DGHS' MIS as part of the expansion of the system to all upazila health complexes.
Activity 1.2.3: Assist CMSD in implementing the comprehensive eLMIS **Activity description:** MTaPS will continue providing TA to users of the CMSD eLMIS in the smooth functioning of the system and troubleshooting support as and when required.	Obj 1, SO 1.2	Stock taking according to the six product groups has been completed and transferred from the old offline system to the online-based system, and transactions have been started from the CMSD eLMIS.
Activity 1.3.1: In collaboration with NTP, roll out eLMIS for TB commodities in all subdistricts **Activity description:** MTaPS will continue to scale up the eLMIS in the remaining upazilas.	Obj 1, SO 1.3	▪ MTaPS has completed a planned 15 batches of training in the second quarter. ▪ 100 upazilas (subdistricts) from 11 districts of Chattogram division have been trained. ▪ 354 participants (23 women, 331 men) attended in different batches. ▪ Cumulatively, eLMIS for TB commodities has been scaled up to 317 upazilas (out of 484) of 41 districts (out of 64) of 5 divisions.

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.3.2: Institutionalize e-Learning course of the relevant directorates of MOHFW **Activity description:** Inform the relevant government directorates through a consultative workshop about the objectives, benefits, and features of the e-Learning courses, and advocate the respective officials at all levels to attend the courses.	Obj 1, SO 1.	Three field-testing sessions were conducted on the basic logistics management e-Learning course for 27 participants (5 women and 22 men) from DGFP, CMSD, and NTP to review the contents and technical aspects of the course and the platform. All participants rated the course and availed certificates. Feedback from participants were addressed, and the final version was published on the government platform (Muktopaath). Four videos on the e-TB Manager course were developed and are waiting for feedback from NTP prior to finalization. Scripts and voice overs for the procurement e-Learning course are being prepared. It is expected that these two courses will be completed by May 2023.
Activity 2.1.1: Continue to provide TA in developing and implementing the CAPA plan in selected functions as per the WHO formal assessment report for the DGDA to contribute to increasing the score on WHO GBT **Activity description:** CAPA plan implementation through periodic mechanism established by MTaPS with other DPs. New CAPA plan development, UAT, and training for implementing OpenRIMS (DGDA-RIMS).	Obj 2, SO 2.1	Assisted in the CAPA plan implementation. Dissemination of DGDA's annual publication 2021-2022 and five-year strategic plan 2022-2026 was supported. To respond to WHO assessment recommendation, a memorandum of understanding between CDC and DGDA has been drafted for scaling up PV to PHPs, which is going through DGDA review. Open RIMS progress was demonstrated to DGDA, the pharmaceutical industry, and WHO and well accepted with some feedback. MTaPS played role in WHO pre-audit held at DGDA and provided technical guidance to increase the score in the WHO GBT.
Activity 2.2.1: Continue to provide TA for generating evidence-based regulatory decisions to ensure medicine safety. **Activity description:** Assess AEs including aDSM reports. Prepare newsletter. Implement PViMS.	Obj 2, SO 2.2	Three workshops, for example, one ADRM, one TSC, and one ADRAC were facilitated by MTaPS for AE and aDSM evaluation with the report captured during October–December 2022. A PV newsletter was drafted that is under review by DGDA. PViMS development status was demonstrated to DGDA, and feedback was taken to work further for implementation. Advocacy is being continued to allocate GOB funds in the operational plan for AE evaluation committees and PViMS implementation with maintenance.
Activity 3.1.1: Assist NTP to implement relevant components of the e-TB manager transition plan **Activity description:** Provide TA to NTP to implement relevant components of the e-TB Manager transition, such as joint monitoring visits for on-the-job training and troubleshooting and capacitating troubleshooters and master trainers.	Obj 3, SO 3.1	MTaPS is assisting NTP in implementing the transition plan. As part of this plan, ▪ A two-day orientation for NTP officials on e-TB Manager source code and software management was organized. ▪ NTP has published an online job advertisement to recruit personnel who will oversee e-TB Manager activities after the end of MTaPS. ▪ MTaPS participated in the first joint monitoring mission conducted by the National AIDS/STD Program. MTaPS participated as a resource point of contact in the BRAC-organized training for the newly recruited 342 staff (165 women and 177 men).

Activity	MTaPS Objective(s)	Activity Progress
Activity 3.2.1: Develop handover documents for major IT systems supported by MTaPS, in consultation with the respective GOB units. **Activity description:** Produce comprehensive handover documents that capture all relevant information required to ensure the continued functioning of the systems after completion of the MTaPS project. MTaPS is committed to keeping the stakeholders' interests in mind throughout this process to ensure that documents meet their needs and are easily understandable.	Obj 3, SO 3.2	MTaPS is actively working on a live document that outlines the identified risks and challenges associated with each system and provides valuable information on how to effectively mitigate those risks and overcome any challenges that may arise.
Activity 5.1.1: Assist HEU in building capacity on pharmaceutical expenditure tracking for MNCH commodities **Activity description:** Capacitate HEU on the expenditure tracking exercise with a policy brief to respond to the needs of policymakers and encourage the use of data to inform decision making.	Obj 5, SO 1	This activity will start after the completion of the standard processes and tracking exercise for the MNCH commodities in June 2023.

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

Under work plan objective 4, MTaPS Bangladesh supports ARC by supporting implementation of the NAP-AMR. The GHSA-related goal of MTaPS Bangladesh is to improve ARC by strengthening the capacity of in-country stakeholders and institutions in three result areas: effective MSC on AMR, IPC, and optimizing implementation of AMS to help the country progress to the next higher JEE level.

CUMULATIVE PERFORMANCE TO DATE

Before the inception of GHSA funding in FY20, MTaPS conducted a mapping exercise under the leadership of the Communicable Disease Control (CDC)/DGHS to assess the implementation status of the NAP-AMR and identify gaps and priorities. After the inception of GHSA funding, MTaPS' contribution to ARC was further strengthened by successfully facilitating joint stakeholders' meetings, finalizing the AMR framework and indicators for IPC and AMS, and extending AMR activities from the national to the facility level. In collaboration with CDC, MTaPS updated the National AMR Strategy, updated and costed the NAP-AMR, and developed the STGs, AMS guidelines, and National Multisectoral AMS Plan. MTaPS is assisting CDC in developing and disseminating a mobile app for the STGs for medical practitioners to consult while on the move. MTaPS facilitated and continued providing TA to strengthen implementation of IPC and AMS at four targeted health facilities. Subsequently, in FY22, IPC and AMS activities were expanded to five additional selected facilities. MTaPS has been supporting the government and stakeholders to increase the achievement of the global benchmark actions for IHR according to WHO JEE in the MSC, IPC, and AMS components of the AMR technical area under the GHSA mandate. The combined effect of these interventions is contributing to improve the country's IHR capacity on the JEE scale.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

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

(Y5) Sub-activity1.1.1.1: Assist CDC in conducting a partner mapping of AMR containment activities and follow-up focus group discussions to refine the information captured in the mapping exercise

MTaPS drafted a national AMR partners mapping methodology and tools and shared them with USAID. Upon USAID's suggestions, a draft questionnaire is being developed and will be finalized after Mission concurrence.

RESULT AREA 2: IPC

Activity 2.5.1: Continue support to strengthen IPC activities through IPC committees in the nine MTaPS-targeted facilities and introduce a mechanism to implement actions and update plans

(Y5) Sub-activity 2.5.1.1: Support joint supervisory visits with CDC/DGHS and QIS officials

MTaPS made joint supervisory visits with CDC, DGHS, and with QIS officials to the Cumilla Medical College Hospital (CuMCH), Munshiganj DH (MDH), Jhalokathi DH, Nilphamari DH and at Taraganj Upazila Health Complex to monitor implementation of IPC and AMS activities following the respective checklists. The team discussed the IPC committee's regular monthly meetings and their implementation of the IPC implementation plan. The supervisory team visited the different wards of the health facilities and gave feedback and recommendations to improve their IPC activities following the checklist with an aim to improve their score. During the joint supervisory visits, the team observed that there is less hand washing as COVID-19 cases are fewer now. The team gave a strong recommendation to continue to practice hand washing, as it is an important component of IPC, and it also prevents infection. This sort of supervisory monitoring visit will establish a practice that will ensure the sustainability of IPC activities at the facility level.

Photo: Joint Supervisory visit at Taraaganj Upazila Health Complex, Bangladesh. Photo credit: Rokeya Begum, Senior Staff Nurse, Taraganj UHC

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

(Y5) Activity 3.1.1: Collaborate with CDC/DGHS and QIS to strengthen AMS governance, planning, and implementation at the national level

Orientations on the STG app field testing have been completed at CuMCH, MDH, Nilphamari DH, and Tarangj Upazila Health Complex for 87 physicians, including pediatricians, emergency, medicine, obstetricians and gynecologists, and surgeons. The testing orientations were conducted by representatives from the CDC, DGHS, and MTaPS. During the visits, the team explained the purpose of field testing the STG app, the process of app installation, registration, feedback link, and use. Participants were told that the app is limited in that it can only be used on Android phones. Participants were encouraged to provide feedback by using the feedback link. In feedback received thus far, most

participants noted that the app is useful and will serve as a crucial tool to implement the AWaRe classification of antibiotics at the facility level.

(Y4) Activity 3.5.1: Improve AMS practices and services at the facility level

Under the leadership of the CDC, DGHS held a workshop on AMS on February 22 based on the lessons learned from the four MTaPS-supported facilities. The workshop was attended by the facility-based AMS focal and facility authorities of CuMCH, MDH, Nilphamari District Hospital, and Taraganj Upazila Health Complex. Dr. Abul Kalam Azad, GHSA Specialist, USAID was also present. The AMS focal of CuMCH, Dr. Mamunur Rashid Bhuiyan, presented the AMS findings of the initial four facilities compared with baseline findings. The data showed that CuMCH was the best-performing facility in all indicators, followed by MDH. However, as a primary-level facility, Taraganj Upazilla Health Complex also showed significant progress. Dr. Bhuiyan also discussed the reason for the success, failure, limitations, and bottlenecks identified during the AMS implementation. However, during the discussion session, participants summarized that the training of STGs, periodic visits of CDC/QIS, MTaPS TA including on-the-job training, and AMS as an important agenda in monthly meetings would help prevent AMR development. In addition, appropriate IPC with AMS actions would prevent the spread of HAI, including AMR. The AMS focal can play a key role in leading the AMS actions agenda in each monthly meeting for its sustainability and gradual improvement. Finally, the line director–CDC appreciated and requested that MTaPS continue the TA to strengthen the capacity of the AMS committees toward establishing a sustainable mechanism.

MTaPS, in collaboration with QIS/CDC, conducted joint monitoring visits in the six MTaPS GHSA-supported health facilities to improve and support facility authorities to review progress and support implementation of AMS activities. During the visit, the team observed that the facility was not carrying out as many AMS activities as required. This is due to lack of technical expertise at the facility on AMS and inadequate training on AMS. The team gave strong feedback to undertake AMS activities at the facility level. Such joint supervisory visits are expected to foster the ownership and sustainability of AMS implementation at the facility level.

BEST PRACTICES/LESSONS LEARNED

- Joint visits made by MTaPS with QIS/CDC officials and MTaPS' TA, including in-depth discussions on using the existing AMS plan helped facility-based AMS committees track AMS progress and gaps in their facilities and take corrective action.
- The inclusion of AMS actions as an important agenda item in monthly meetings as well as scientific seminars helped AMS teams/committees to gain experience and sensitized them to the need to orient mid-level doctors on rational use of antimicrobials following AWaRe classification.
- If the residential medical officer is motivated s/he could be a changemaker as s/he plays an important role (member secretary) in the IPC and AMS committees. Under the leadership of the residential medical officer, significant improvement was made in IPC implementation in MTaPS GHSA-supported health facilities.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Continue to support governance, functionality, and implementation capacity of the national MSC mechanisms. ▪ An inventory of AMR interventions supported by different stakeholders and implementation gaps will be identified.	April–June 2023
Activity 2.1.1: Strengthen IPC governance structures at the national level, including updating of the multi-year IPC NAP. ▪ Finalize TOR for the National Multisectoral IPC Committee. ▪ Form national multisectoral IPC committee. ▪ Develop national IPC action plan and vet by CWG meeting. ▪ Hire consultant for the national IPC repeat assessment. ▪ Have consultant develop report of national IPC repeat assessment.	April–June 2023
Activity 2.2.1: Help expand and sustain the use of the newly developed IPC e-Learning module in collaboration with key stakeholders ▪ Finalize IPC e-Learning course. ▪ Upload and use IPC e-Learning course.	April–June 2023
Activity 2.5.1: Continue support to strengthen IPC activities through IPC committees in the nine MTaPS-targeted facilities and introduce a mechanism to implement actions and update. ▪ Develop facility supervision, monitoring, and on-the-job training reports. ▪ Hold cross-learning visit at the facility level.	April–June 2023
Activity 3.1.1: Collaborate with CDC/DGHS and QIS to strengthen AMS governance, planning, and implementation at the national level. ▪ Report on prioritized AMS activities and implementation responsibilities protocol and report on field testing and use of the STG app	April–June 2023
Activity 3.5.1: Strengthen AMS programs at facility level ▪ Develop facility supervision, monitoring and on-the-job training reports. ▪ Hold cross-learning visit at the facility level.	April–June 2023

Table 3. Quarter 2, FY23, Activity Progress, Bangladesh—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.1.1: Continue to support governance, functionality, and implementation capacity of national MSC mechanisms. **Activity description:** MTaPS will focus support to the NTC and its CWG, to complement ongoing interventions, with the aim of continuing to support the country's progress toward higher JEE capacity levels, consolidate gains, ensure smooth transition, and advocate. A key activity under MSC will be to support CDC in mapping the country AMR activities at a national level, with the aim of identifying gaps in addressing WHO JEE areas, followed by updating the road map of the NAP.	5	1.1	Mapping tools/checklist/methodology has been developed and shared with USAID.
Activity 2.1.1: Strengthen IPC governance structures at national level, including updating the multisectoral IPC NAP **Activity description:** MTaPS provides TA to draft TOR for national IPC committee, draft committee, and plan following the assessment findings, and other areas, such as drafting meeting minutes, invitation letters, translating any documents, when needed. MTaPS is coordinating CWG meetings to identify agenda for actions (i.e., various assessment, updates of NAP, developing AMS guidelines, etc.).	5	2.1	A draft national IPC plan supported by MTaPS is pending discussion in the CWG for approval. The draft plan was discussed with CDC several times.
Activity 2.2.1: Help expand and sustain the use of the newly developed IPC e-Learning module in collaboration with key stakeholders **Activity description:** The modified IPC e-Learning course is in the development stage. MTaPS will upload the courses into Muktapath to ensure its use by health care providers	5	2.2	MTaPS Bangladesh team worked extensively on an e-Learning module to finalize the content
Activity 2.5.1: Continue support to strengthen IPC activities through IPC committees in the nine MTaPS-targeted facilities and introduce a mechanism to implement actions and update plans. **Activity description:** Monitoring visits at MTaPS-supported health facilities.	5	2.5	Joint supervisory visit with CDC, DGHS, and QIS officials was conducted at the CuMCH, MDH, Jhalokathi DH, Nilphamari DH, and Taraganj Upazila Health Complex to monitor implementation of IPC activities. Facility-based consultants have been on board for Barishal, Khulna, and Rangpur divisions.
Activity 3.1.1: Collaborate with CDC/DGHS and QIS to strengthen AMS governance, planning, and implementation at the national level. **Activity description:** MTaPS will support prioritized AMR activities, including implementation protocol and field testing of the STG app	5	3.1	STG app field testing was completed in CuMCH, MDH, Nilphamari DH, and Taraganj Upazila Health Complex. The field testing was conducted by representatives from CDC, DGHS, and USAID MTaPS.
Activity 3.5.1: Help strengthen AMS programs at facility level	5	3.5	Joint supervisory visits with CDC, DGHS, and QIS officials were conducted at the CuMCH, MDH, Jhalokathi DH,

Activity description: Improve facility-based AMS implementation efficiency through joint supervisory visit, on-the-job assistance, peer-to-peer visits.			Nilphamari DH, and Taraganj Upazila Health Complex to monitor implementation of AMS activities. Facility-based consultants have been on board for Barishal, Khulna, and Rangpur divisions. The AMS implementation plan has been developed in Jhalokathi DH.

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 helping Burkina Faso 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. As of September 2022, MTaPS has supported the completion of 4 WHO benchmark actions—1 contributing to MSC/AMR, and 3 to AMS—while 5 other benchmark actions are at various stages of completion (ongoing).

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 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 health facilities and capacitating those that already exist to provide supportive supervision in their facilities and promote AMS practices. In FY23, in addition to activities to strengthen facility-level DTCs, MTaPS is supporting the technical secretariat of the One Health Platform (TS-OHP) and the OHP's AMR-TTC to strengthen governance and effective MSC-AMR and to optimize the use of antimicrobial medicines in the human and animal sectors. Particularly in the animal sector, MTaPS plans to support the DGSV to develop and validate a draft ministerial order regulating antimicrobial use based on the developed AMS guidelines.

CUMULATIVE PERFORMANCE TO DATE

To facilitate the official establishment of the OHP in Burkina Faso, MTaPS—in collaboration with the USAID GHSC-PSM program and OHP members—supported the TS-OHP to draft Inter-Ministerial Order No. 2020-210/MS/MINEFID/MESRSI/MAAH/MRAH/MEEVCC, which defines the TOR, organization, composition, and functioning of the technical steering committee, TS, and OH focal points. The order was signed on June 30, 2020.

MTaPS collaborated with other OHP stakeholders to organize a governance meeting of the presidents and vice-presidents of the OHP's seven TTCs to orient them on how to effectively govern their respective committees. MTaPS supported the TS-OHP to review and update the inter-ministerial orders establishing the TTCs, which were then submitted to the respective ministers for signature. MTaPS also worked with the TS-OHP, the AMR-TTC, and OH partners to strengthen the organizational and

governance structure of the AMR-TTC by defining the TOR, roles and responsibilities, and composition of the AMR-TTC and its sub-commissions. MTaPS collaborated with the FAO and the Country Health Information Systems and Data Use project to organize OHP meetings and strengthen coordination between the AMR-TTC and OHP. In FY22, MTaPS—in collaboration with FAO, the Ministry of Water, Energy, and Environment (the current chair of the OH steering committee), and other AMR stakeholders—supported the leadership of the AMR-TTC to organize a quarterly meeting to review activity implementation by IPs. Additionally, MTaPS, in collaboration with WHO, supported the AMR-TTC and the TS-OHP to develop Burkina Faso's 2021–2024 NAP-AMR.

MTaPS also supported five meetings of Burkina Faso's RUA sub-commission and facilitated the participation of a total of five MOH representatives in a two-part inter-university 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, and the University of Montpellier in France.

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. MTaPS also supported the DGSV to develop a training package based on the guidelines. To strengthen the capacity of service providers, MTaPS then supported three training of trainers (TOT) sessions for 15 veterinarians (2 female, 13 male) and 42 livestock technicians (4 female, 38 male) using the developed training package. MTaPS supported the DGSV to print 500 copies of the guidelines for dissemination to support AMS at the peripheral level of the health system. MTaPS also supported the DGSV to draft a ministerial order establishing pharmacovigilance in the animal health sector to align the country with West African Economic and Monetary Union (WAEMU) requirements.

WHO and the General Directorate of Pharmacy, Medicines, and Laboratories led a review of Burkina Faso's EML in 2020. As part of the process, MTaPS provided technical assistance to ensure that antibiotics in the EML were classified according to the WHO AWaRe categorization. In FY21, MTaPS supported the National Drug Regulatory Authority to disseminate 1,500 copies of the EML (including the AWaRe categorization of antibiotics) to assist health care professionals in following proper prescribing practices. In FY22, MTaPS and WHO also supported the National Drug Regulatory Authority to develop the 2022 National Therapeutic Formulary (NTF) for Burkina Faso.

Additionally, MTaPS supported the Directorate of Hospital Pharmacy (DPH) to establish and train DTCs in 10 selected health facilities. A total of 250 DTC members (60 female, 190 male) were trained on AMS. 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 (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 HFs. MTaPS also supported the Directorate for the Quality of Care and Services (DQSS) and DPH in printing and disseminating 500 copies of the STGs.

Aligned with what has been achieved, MTaPS supported the DGAP, DPH, and Directorate of Pharmaceutical Information and the Rational Use of Health Products to conduct supervision visits to 10 MTaPS-supported HFs 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.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support the functionality of the TS-OHP

MTaPS supported the OHP and the RUA sub-commission to carry out a sensitization workshop on RUA for 89 students (51 male and 38 female) in their sixth and final year of studies in medicine and pharmacy at Nazi Boni University of Bobo-Dioulasso. The workshop was intended to inform these students about the correct use of antibiotics, as they are on the front line of prescribing in the teaching hospitals and will serve as the country's future practitioners and prescribers after graduation. Conducted under the leadership of Pr. Armel Poda, the President of the AMR-TTC, this workshop was organized as part of the country's annual celebration of WAAW, normally scheduled each year in November.

MTaPS supported the TS-OHP to conduct a sensitization workshop on RUA in the city of Koudougou (Centre-Ouest Region). This sensitization was carried out under the aegis of TS-OHP and the leadership of Pr. Poda, in association with the Director of Pharmaceutical Information and Rational Use of Health Products and one representative from the DPH. Sixteen head officers of health regions and health districts and general directors of hospitals or their representatives (all of whom were male) attended the workshop. The workshop's main objectives were to sensitize participants about the threat of AMR in the world in general as well as in LMICs such as Burkina Faso specifically. The sensitization was carried out through presentations on topics such as the global challenge of AMR, the organization of the fight against AMR in Burkina Faso, the rational use of antibiotics (especially regarding the treatment of skin, urine, and lung infections), an overview of the TTCs of the OHP, and key recommendations for antibiotic use in curative and prophylactic care. Workshop attendees were encouraged to strengthen the functioning of DTCs; designate a point of contact for guidance on antibiotic therapy in their facilities; encourage the participation of medical staff, pharmaceutical staff, nurses, and midwives in the inter-university diploma course on antibiotherapy and antibiology at Nazi Boni University of Bobo-Dioulasso; and encourage training and sensitization on AMS for all medical and technical health staff. They also were encouraged to support the dissemination of the Practical Guide to the Correct Prescription of Antibiotics in Burkina Faso to all prescribers; the drafting and distribution of treatment protocols; the availability of rapid diagnostic tests for angina; continuous accessibility of the bacteriology laboratory; and operational research (including the surveillance of multi-resistant bacteria, the prevalence of HAIs, and the point of prevalence survey of antibiotics use).

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

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

MTaPS supported the TS-OHP and its RUA sub-commission to hold its quarterly meeting. Only nine staff members attended the meeting, including six female participants. The meeting aimed to share the results of the sensitization on RUA during the celebration of WAAW, present activities conducted with MTaPS' support in the GHSA technical area, and discuss planned activities for fiscal year 2023 to support the TS-OHP and the RUA sub-commission and establish a timeline for implementation. Attendees agreed unanimously that there is poor ownership of GHSA activities due to the low functionality of the OHP and its leadership, and they emphasized the urgent need to have the ministerial order designating the members of AMR-TTC and its sub-commissions, including the RUA sub-commission, signed.

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 PV in the animal health sector

MTaPS supported the DGSV to conduct a validation workshop in Ouagadougou on the draft ministerial order establishing a pharmacovigilance system in the animal health sector, as recommended by WAEMU. This was the last step in the development of the ministerial order. The main objective of the workshop was to present the first draft to a larger group of technical staff from the central, regional, and peripheral levels, including from the private sector, for their input before the document is sent to the Minister's office for signature. A total of 20 (5 female, 15 male) attendees participated in the workshop and reviewed the ministerial order.

BEST PRACTICES/LESSONS LEARNED

- NGO partners need to establish a communication mechanism defining areas of collaboration to improve efficiency and avoid schedule conflicts for activities carried out in the field with government stakeholders.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity & Description	Date
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 PV in the animal health sector **Description:** Support the DGSV to disseminate the ministerial order regulating and enforcing the rational use of antimicrobials	June 2023
Activity 1.1.2: Strengthen the functionality of the TTC-AMR and the RUA sub-commission **Description:** Support the RÚA sub-commission to organize its quarterly meetings	April 2023
Activity 3.2.2: Develop and promote the use of a website application that includes the national therapeutic formulary and other rational use- and AMR-related documents **Description:** MTaPS will support the Directorate of Health Information Systems (DSIS) and NDRA/Department of Pharmaceutical Information and Rational Use of Medicines (DIPUR) to develop a website application that will include the NTF and other rational use and AMR–related documents. The application will be accessible and user friendly to all health practitioners in Burkina Faso and to the general public.	May 2023

Activity 3.5.1: Support the DPH, TTC-AMR, and DTCs to monitor the implementation of AMS interventions in selected health facilities **Description:** MTaPS will support DPH and TTC-AMR to monitor AMS interventions in selected health facilities through supervision and antibiotic-use audit	April 2023

Table 4. Quarter 2, FY23, 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 **Activity description:** 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	5.4	1.1	MTaPS supported the RUA sub-commission to organize its second quarterly coordination meeting.
Activity 1.1.2: Strengthen the functionality of the TTC-AMR and the RUA sub-commission **Activity description:** 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	5.4	1.1	MTaPS supported TS-OHP and the TTC-AMR through the RUA sub-commission to conduct a sensitization workshop on AMR for the heads of health facilities (university hospital centers, regional hospital centers, district hospitals, and the regional health directorate) on RUA.
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 PV in the animal health sector **Activity description:** Organize a two-day workshop in eight administrative regions and establish a PV system in the animal health sector	5.4	3.5	MTaPS supported the DGSV to draft the decree/ministerial order creating the national veterinary PV system in Burkina Faso and to design a PV data collection tool and reporting mechanism. The decree/ministerial order is now with the Ministry of Agriculture, Animal Resources, and Fisheries for finalization and official endorsement.

C. CAMEROON

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS/Cameroon is to support AMR containment, slow the emergence of resistant bacteria, and prevent the spread of resistant infections. MTaPS/Cameroon 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 terms of reference, as well as 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 in place a strong governance mechanism, 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 terms of reference 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.

CUMULATIVE PERFORMANCE TO DATE

MTaPS' primary goal is to support the country in reaching the next JEE level across the three result areas by supporting the completion of WHO IHR benchmark actions. As of September 2022, MTaPS has supported the completion of 6 (10%) of the 62 total WHO benchmark actions—5 contributing to IPC and 1 to AMS—while 17 other benchmark actions are at various stages of completion (ongoing).

Since MTaPS began its work in Cameroon in 2019, the program has supported the MSC of AMR through assisting 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 OHP to strengthen linkages between these two bodies and to advocate for creating the MCC. MTaPS also supported a workshop for OHP stakeholders to review the regulatory framework of the OHP and supported a workshop to review and finalize the 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 HCAIs.

Additionally, MTaPS supported the DPML to carry out a situational analysis of AMS-related policies in the animal and human health sectors, develop a national integrated AMS action plan, establish DTCs in 12 HFs, train 239 health care providers (134 female, 105 male) in AMS, conduct CQI of AMS activities in supported HFs, and is currently supporting the country to classify antibiotics following the WHO AWaRe categorization.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.2.1 (FY22 activity): Support the TS of the AMR MCC and the OHP to update the NAP-AMR

MTaPS supported a five-day workshop bringing together the stakeholders of the OHP, the TS of the AMR MCC, and relevant ministries to review and finalize the NAP-AMR as well as develop the M&E framework. Prior to this, MTaPS had partnered with IDDS and FAO to hire two national consultants to assess the previous NAP-AMR and propose a draft update of the document. The workshop was held in Ebolowa with a total of 41 participants, including 22 (54%) female participants. Representatives from the following institutions and departments attended the workshop: the Ministry of Health (Department for the Control of Epidemics and Pandemics, DPML, National Public Health Observatory, National Public Health Laboratory), Ministry of the Environment and Development, Ministry of Agriculture and Rural Development, Ministry of Livestock and Animal Industries (the national zoonosis control program), National Veterinary Laboratory, Ministry of External Relations, Ministry of Higher Education, CODEX, Ministry of Defense, and partners (WHO, FAO, IDDS, German Agency for International Cooperation, IFRC, Breakthrough ACTION, and Clinton Health Access Initiative). Unlike the previous NAP-AMR which was a three-year plan, this updated plan is a five-year plan (2023- 2027).

The next steps will consist of validating the NAP-AMR and producing hard copies in both French and English for dissemination to stakeholders by the end of June 2023.

Activity 1.2.1: Continue to support the institutionalization, ownership, and uptake of AMR-related e-learning courses through multisectoral efforts

MTaPS is collaborating with AFROHUN and IDDS to use the existing IPC and AMS modules developed with MTaPS' support to strengthen the capacity of health staff, develop the course content for the master's curriculum in infectious diseases and AMR at the University of Buea (UB), and support UB to develop an e-learning platform for this course content. As part of this collaboration, MTaPS participated in a stakeholders' engagement meeting with UB officials to present and validate the roadmap for this activity developed during the previous quarter and approve an implementation timeline. MTaPS also participated in a two-day meeting—including AFROHUN, IDDS, and the consultant recruited by IDDS—to discuss and validate the consultant's scope of work for the development of the e-learning platform. During this meeting, the UB board and faculty also reviewed and approved the existing IPC

and AMS e-learning modules and established working groups for each thematic area of the master's curriculum (including IPC, AMS, etc.).

Group sessions during the workshop to review and finalize the NAP-AMR, Cameroon. Photo credit: Armelle Tchato, MTaPS

RESULT AREA 2: IPC

Activity 2.5.1: Continue to strengthen the governance, functionality, and capacity of IPC committees to implement self-initiated IPC activities and continuous quality improvement (CQI) using IPC tools and institutionalized actions

MTaPS supported the DPS to carry out the onsite supervision of IPC committees in MTaPS-supported HFs, using IPCAF and HHSAF tools, as part of the CQI process to strengthen the functionality of IPC committees. The supervision reached 4 of the 12 HFs in the West region. The objective of this supervision was to assess IPC core components using the WHO IPCAF tool, assess the implementation of IPC activities in the facility improvement plans, follow up on implementation of self-initiated activities by IPC committees, follow up on implementation of recommendations formulated during the last supervision, identify implementation challenges, and discuss possible solutions. As shown in table 5 below, all four HFs supervised had improved IPC scores compared to the last onsite supervision, and two of the HFs had attained the advanced level (score >600 on a scale of 800) of IPC status.

Table 5. Supervision results from four HFs in the West region of Cameroon

Health facility	Previous score (June 2022)	Current score (March 2023)	Status
Bangangte District Hospital	406	515	Intermediate
Mbouda District hospital	532.5	602	Advanced
Foumbot District hospital	472.5	515	Intermediate
Bafoussam Reference hospital	612.5	677.5	Advanced

All four HFs had implemented at least 50% of activities in their IPC action plans. The self-initiated activities identified by the HFs include strengthening IPC compliance using the multimodal strategy, strengthening surveillance of priority HCAIs at the facilities, and measuring efficacy and sensitization strategies of patients on hand hygiene.

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

Activity 3.5.1: Support the governance and functionality of the DTCs to implement AMS programs and actions, including monitoring of AMU and other interventions, to improve AMU at designated HFs

MTaPS continued to support the DPML to strengthen the governance and functionality of DTCs to continue to implement AMS programs through self-initiated efforts to foster ownership and sustainability. Each of the 12 supported DTCs had been asked to identify at least 1 data-based improvement or other results-oriented activity either from their existing AMS improvement plan or by proposing a new activity. So far, 7 of the 12 DTCs have submitted a proposal for their planned activities including a detailed implementation plan. MTaPS is reviewing the activity proposals submitted and following up with the DTCs that have not yet submitted their proposals.

BEST PRACTICES/LESSONS LEARNED

During support of the e-learning program, it became clear that different partners had their own internal procedures for per diem payments and other budget line items. To resolve this challenge, MTaPS coordinated with other counterparts to split costs fairly and determine which partners were best positioned to cover each budget line item in compliance with their own internal procedures.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity & Description	Date
Activity 1.2.1: Continue to support the institutionalization, ownership, and uptake of AMR-related e-learning courses through multisectoral efforts	May 2023
Activity 2.5.1: Continue to strengthen the governance, functionality, and capacity of IPC committees to implement self-initiated IPC activities and CQI using IPC tools and institutionalized actions	April 2023
Activity 3.5.1: Support the governance and functionality of the DTCs to implement AMS programs and actions, including monitoring of AMU and other interventions, to improve AMU at designated HFs	April 2023
Activity 3.1.1: Support the classification of antibiotics in the human sector following recommendations from the WHO AWaRe categorization	April 2023

Table 6. Quarter 2, FY23, Activity Progress, Cameroon—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.2.1: Support the TS of the AMR MCC and the OHP to update the NAP-AMR **Activity description:** MTaPS has supported a workshop to finalize the NAP-AMR	5.4	1.2	MTaPS, IDDS, and FAO had supported the national counterparts to hire consultants to assess the outdated plan and propose a draft NAP-AMR. MTaPS supported a workshop to review and finalize the updated plan including an M&E framework. MTaPS will support a workshop to validate the draft NAP-AMR.
Activity 1.2.1: Continue to support the institutionalization, ownership, and uptake of AMR-related e-learning courses through multisectoral efforts **Activity description:** MTaPS, IDDS, and AFROHUN will support UB to develop the course content for the master's curriculum in infectious diseases and AMR recently launched at UB	5.4	1.2	MTaPS, IDDS, and AFROHUN have proposed a roadmap and a timeline for the implementation of this activity. With the support of IDDS, a consultant has been hired to develop the e-learning platform. The next step following the roadmap will be the organization of a workshop to develop the course content of the master's curriculum and transform it into an e-learning format.
Activity 2.5.1: Continue to strengthen the governance, functionality, and capacity of IPC committees to implement self-initiated IPC activities and CQI using IPC tools and institutionalized actions **Activity description**: MTaPS supported the IPC committees through the DPS to identify impactful activities and monitor their implementation	5.4	2.5	Through the ongoing IPC supervision, MTaPS is supporting the HFs to finalize their concept notes for the activities identified. MTaPS will thereafter support the implementation of the activities.
Activity 3.1.1: Support the classification of antibiotics in the human sector following recommendations from the WHO AWaRe categorization **Activity description:** MTaPS will support the DPML to classify antibiotics following the WHO AWaRe categorization	5.4	3.1	MTaPS has supported the DPML to hire a national consultant to produce a first draft of the AWaRe categorization. MTaPS will thereafter support a workshop to review and validate the document.
Activity 3.5.1: Support the governance and functionality of the DTCs to implement AMS programs and actions, including monitoring of AMU and other interventions, to improve AMU at designated HFs **Activity description:** MTaPS supported the DTCs through the DPML to identify one or two pertinent activities from their AMS facility action plans to be implemented	5.4	3.5	MTaPS has supported the DPML to organize a virtual meeting of the DTC champions to encourage them to identify proposed activities and send concept notes (including a budget) for implementation. MTaPS will provide technical and financial support once all 12 facilities have identified their proposed activities.

D. CÔTE D'IVOIRE

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS/Côte d'Ivoire is to support sustained AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. MTaPS/Côte d'Ivoire is supporting strategic objectives 4 (reduce incidence of infections through effective sanitation, hygiene, and prevention measures) and 5 (improve rational use of antimicrobials in human and animal health and environmental sectors) of the 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 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' primary goal is to support the country move up to the next JEE level across the three result areas by supporting the completion of WHO IHR benchmark actions. As of September 2022, MTaPS has supported the completion of 31 WHO benchmark actions (9 contributing to MSC/AMR, 14 to IPC, and 8 to AMS), while 4 other benchmark actions are at various stages of completion (ongoing).

Since MTaPS launched 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, which is connected to the OHP through a national coordinating body called the MSC Group (or MCC). MTaPS helped 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, IPC TWG (multisectoral technical committee 4 [MTC4]), and AMS TWG (MTC5) 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 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 the veterinary clinic of the Ministry of Animal Resources and Fisheries' Regional Directorate of Bouake and 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 HFs. Supported ICCs and DTCs are now functional with clear TOR and capacity building plans.

MTaPS assisted the AMR TWG to improve the reporting of achievements to health authorities in Côte d'Ivoire. 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.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support the MCG to monitor the implementation of the approved national multisectoral action plan to combat AMR (NAP-AMR)

As part of its support to the multisectoral coordination group (MCG) to monitor the implementation of the approved NAP-AMR, MTaPS supported the AMR TWG to organize two workshops from January 25 to February 17, 2023, to develop and validate the M&E plan of the 2021-2025 NAP-AMR. In total, 36 people (including 10 women) from MTaPS, the Directorate of IT and Health Information, and MTCs of the AMR TWG attended the workshops, where they finalized and validated the AMR M&E plan, the data collection tools, and the M&E logical framework.

Additionally, MTaPS, in collaboration with Breakthrough ACTION, supported the AMR TWG to validate the AMR operational advocacy plan which was developed in September 2022. Thirty-two participants (including 12 women) attended the validation workshop.

On February 22, 2023, MTaPS provided technical support to the AMR TWG to organize a meeting of MTC5 (the AMS TWG) to review progress and develop a roadmap for MTC5 in 2023. Nine people (five men and four women) participated in the meeting, allowing them to take stock of activities carried out in 2022 and develop the 2023 roadmap of the MTC5.

RESULT AREA 2: IPC

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

From February 28 to March 17, 2023, MTaPS provided technical support to the MTC on sanitation and IPC (MTC4) of the GTT RAM to complete internal IPC assessments at the three planned COEs using WHO IPCAF tools. The three planned COEs targeted by this activity were the Gagnoa Regional Hospital, the Bouake University Hospital, and the Clinic "Le Grand Centre" in Yopougon. Thirty-three people from the three facilities participated in this evaluation, which was supervised by members of each facility's IPC committee. The assessment results are summarized in figure 2 below. In general, the IPC program and IPC guidelines components have been greatly improved in the three COEs. However, efforts remain to be made in the components of education and training for IPC; built environment, materials, and equipment for IPC at the facility level; and workload, staffing, and bed occupancy, respectively, at the Grand Centre Clinic, the Gagnoa Regional Hospital, and the Bouake University Hospital.

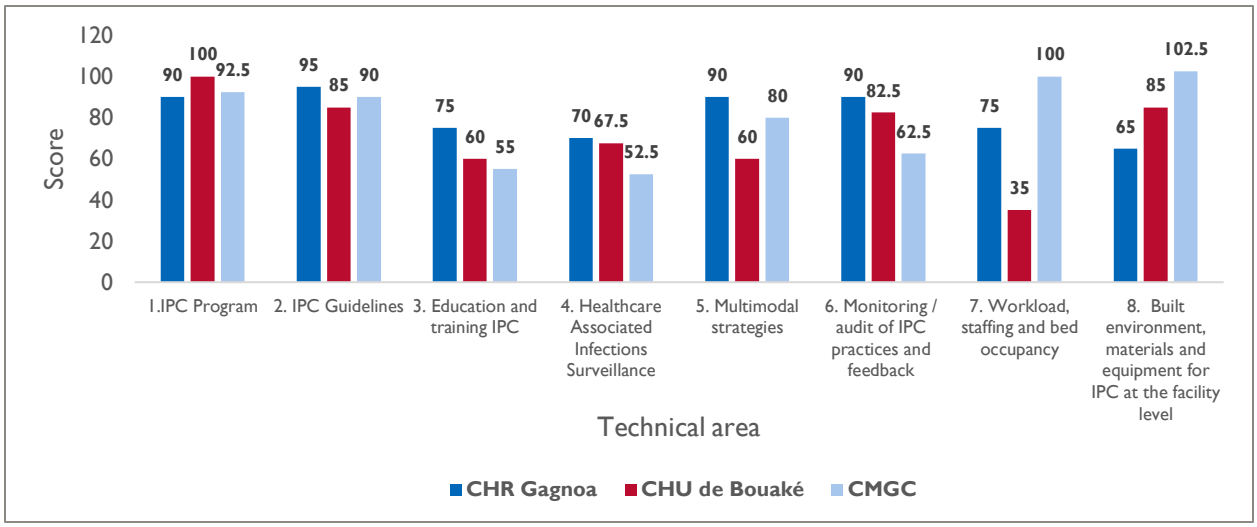


Figure 2: Detailed IPCAF assessment results by facility

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

Activity 3.1.1: Support the AMR TWG to review the national regulatory framework for appropriate use of antimicrobials in human health

Following the previous AWaRe expert committee meeting held in October 2022, MTaPS supported the MTC5 in organizing a meeting of the group of experts for the WHO AWaRe categorization of antibiotics in Côte d'Ivoire. This meeting took place on January 24, 2023, in the MSH Côte d'Ivoire office. Sixteen participants (nine men and seven women) attended the meeting. At the end of the meeting, participants identified the antibiotics to be put in the WHO Reserve category. Following this meeting, MTaPS supported another AWaRe expert committee meeting on March 8, 2023, at the MSH Côte d'Ivoire office to validate the list of antibiotics for the Access and Watch categories. Sixteen participants attended the meeting (including nine men and seven women).

In collaboration with the AMR TWG, MTaPS and WHO organized two workshops to update and validate the interministerial decree officially establishing DTCs in Côte d'Ivoire. Once signed, the updated decree will define the mission, attributions, composition, and functioning of DTCs in the country. Thirty-one participants (including eight women) from Directorate of Pharmaceutical Activity, Institute Pasteur of Côte d'Ivoire, Felix Houphouet Boigny University of Cocody, Ivorian Pharmaceutical Regulatory Authority, Regional Hospital of Gagnoa, MTaPS, and MTC5 participated in the workshops.

BEST PRACTICES/LESSONS LEARNED

- The involvement of key stakeholders in developing a NAP-AMR M&E plan strengthens their level of ownership of the overall NAP-AMR M&E system.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Support the MCG to monitor the implementation of the approved NAP-AMR ▪ MTaPS will continue to coach the AMR national focal point in her new role as the AMR MCC head to lead the quarterly monitoring meetings to update and regularly evaluate the monitoring of the NAP-AMR.	May 10, 2023
Activity 2.1.1: Support the AMR TWG to strengthen the IPC program at the national and facility levels ▪ MTaPS will provide support to GTT-RAM to conduct quarterly assessments of the three selected IPC COEs with the WHO HHSAF and Water and Sanitation for Health Facility Improvement (WASH FIT) tools, and work closely with regional IPC focal point, regional IPC trainers, and IPC committee heads to update and implement facility IPC improvement plans at all supported facilities for IPC.	June 2023
Activity 2.5.1: Strengthen the functionality of IPC committees in the human health sector and the capacity of HCPs to implement IPC ▪ MTaPS will support regional IPC focal points and regional IPC trainers to conduct a quarterly supervision of the IPC committees at the three selected IPC COEs. MTaPS will also support local IPC actors to strengthen and monitor the functionality of IPC committees in the 17 other supported facilities during annual supervision visits.	April 2023
Activity 2.5.1: Strengthen the functionality of IPC committees in the human health sector and the capacity of HCPs to implement IPC ▪ MTaPS will work closely with IPC committee heads to conduct semi-annual supervision of HCPs in the three selected IPC and AMS COEs in Côte d'Ivoire.	May 2023
Activity 3.5.1: Support the AMR TWG to improve a governance and oversight system for AMS in health facilities, including monitoring the implementation of related policies, guidelines, and standards ▪ Supervision visits to monitor AMS capacity levels using the WHO-adapted AMS tool in the 3 AMS COEs, 2 days per site; site visits to monitor DTC activities implementation in the 17 facilities, 2 days per facility.	April–May 2023

Table 7. Quarter 2, FY23, Activity Progress, Côte d'Ivoire—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)
Activity 1.1.1: Support the MCC to monitor the implementation of the approved NAP-AMR activity **Activity Description:** MTaPS' assistance in FY23 will focus on supporting the AMR MCG to develop and implement an advocacy plan and organize a fundraising workshop to identify funding sources for the implementation of the newly developed NAP-AMR 2021-2025.	5.4	1.1	MTaPS provided technical support to the AMR TWG for organizing the validation workshop of the operational advocacy plan which developed in Grand Bassam from September 5 to 9, 2022. This workshop took place from March 7 to 10, 2023, in Yamoussoukro and was organized by Breakthrough ACTION. This workshop was attended by 32 people (including 12 women) and resulted in the second draft of the AMR advocacy plan.
Activity 2.1.1: Support the AMR TWG to strengthen the IPC program at the national and facility levels **Activity description:** MTaPS will provide support to GTT-RAM to make 3 health facilities among the 20 health facilities supported in previous years (Bouake University Hospital, Gagnoa Regional Hospital, and Clinic "Le Grand Centre" in Yopougon) COEs in IPC and AMS.	5.4	2.1	As part of supporting of the AMR TWG to strengthen the IPC program at the national and facility levels, from February 28, 2023, to March 17, 2023, MTaPS supported the TWG in conducting the assessment of three health facilities/COEs (Bouake University Hospital, Gagnoa Regional Hospital, and Clinic "Le Grand Centre" in Yopougon) in IPC using the IPCAF, HHSAF, and WASH FIT tools.
Activity 3.1.1: Support the AMR TWG to review the national regulatory framework for appropriate use of antimicrobials in human health **Activity description:** MTaPS will support the AMR TWG in updating the decree that establishes DTCs in the country to comply with international standards and the WHO recommendation. Updates on the decree will address the issues raised above and strengthen the institutional framework for DTC AMS activities in health facilities.	5.4	3.1	MTaPS provided technical support to the AMR TWG for the organization of the workshop to revise and validate the decree on drug committees. This workshop was held in two phases from March 20 to 22, 2023, and from March 23 to 24, 2023, in Grand Bassam. This workshop resulted in a new decree for the creation of drug committees that will be submitted to the Minister of Health for validation. Twelve people participated in this workshop.
Activity 3.5.1: Support the AMR TWG to improve a governance and oversight system for AMS in health facilities, including monitoring the implementation of related policies, guidelines, and standards **Activity description**: MTaPS will support the AMR TWG to transform three health facilities (Bouake University Hospital, Gagnoa Regional Hospital, and Clinic "Le Grand Centre" in Yopougon).	5.4	3.5	As part of the support to the AMR TWG to improve a governance and oversight system for AMS in health facilities—including monitoring the implementation of related policies, guidelines, and standards—MTaPS supported the IPC TWG to conduct an online meeting on IPC activities in the three pilot COEs in IPC on February 15, 2023. The activities to be implemented in these centers will depend on the capacities evaluation of these sites. The participants planned the evaluation of the three health centers.

E. DRC

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The MTaPS GHSA strategy is aligned with MTaPS' results framework. The goal of MTaPS' AMR work in DRC is to support AMR containment and to slow the emergence of resistant bacteria and prevent 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 WHO benchmarks for IHR capacities. In DRC, the goal of achieving good patient outcomes will be met using multidisciplinary and multisectoral collaboration to improve 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 elements to capture, document, and disseminate experience and results. Through MTaPS, USAID is contributing to addressing the challenges mentioned above to help DRC achieve higher WHO IHR capacity levels in AMR technical areas.

CUMULATIVE PERFORMANCE TO DATE

Since the JEE was conducted in DRC in March 2018, the country has made progress with the AMR recommendations identified in the JEE report by developing a NAP-AMR in 2019. Since its startup in DRC, MTaPS has supported the NC-AMR to implement the NAP-AMR and achieve progress in the MSC, AMS, and IPC technical areas. As of September 2022, MTaPS DRC supported 21 (31%) of the 67 WHO benchmark actions—8 contributing to MSC/AMR, 8 to IPC, and 5 to AMS. MTaPS has assisted country counterparts to make progress in MSC/AMR by supporting 50% (2/4) of level 2 actions, 50% (2/4) of level 3 actions, 75% (3/4) of level 4 actions, and 20% (1/5) of level 5 actions in DRC. MTaPS has also contributed to improvement from the baseline score of 1 toward full level 2 capacity for AMS by supporting 75% (3/4) of the actions for level 2. MTaPS has also supported 33% (2/6) of the actions recommended for level 3 for AMS in DRC.

MTaPS supported the establishment of 12 DTCs in 5 provinces in DRC to oversee AMS interventions at HFs. MTaPS is also supporting DTCs in conducting quarterly assessments of antimicrobial use, including antibiotic prescribing patterns and patients' knowledge on antibiotic prescriptions, as part of their CQI programs. In addition, MTaPS, in collaboration with WHO, provided support to the National Pharmaceutical Regulatory Authority (ACOREP), which was formerly known as the DPM, to develop and integrate WHO AWaRe categorization of antibiotics into the revised NEML and disseminate it in the provinces of Nord Kivu and Ituri.

A study on the aggregate consumption of antimicrobials in DRC revealed that at least 70% of antibacterial medicines consumed were in the Access category of the AWaRe categorization, which is higher than the WHO's recommendation of 60%. Despite good national results, the AWaRe categorization needs further review at the HF level. An assessment conducted in May 2021 in MTaPS-supported facilities showed that only two out of the seven (or 29%) HFs assessed had at least 60% of prescribed antibiotics grouped under the Access category.

MTaPS has also assisted country counterparts in making progress in the IPC technical area by supporting 80% (4/5) of level 2 actions and 67% (4/6) of level 3 actions. 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. Afterward, each facility developed an improvement plan to reduce health care-acquired infections and the use of antimicrobials. MTaPS also supported the Directorate of Hygiene in assessing hygiene conditions at the central level of DRC's health system by using the WHO IPCAT and develop an improvement plan, which is currently being implemented.

To contribute to DRC's progress toward higher WHO IHR capacity levels in the AMR technical areas, MTaPS also continued supporting the NC-AMR and its AMS and IPC subcommittees to hold their respective quarterly meetings.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Provide technical and logistical support to the NC-AMR for effective monitoring and planning of AMR interventions.

To continue strengthening AMR activities in DRC, MTaPS, in collaboration with WHO and FAO, supported the ACOREP of the NC-AMR to hold a quarterly AMR MSC meeting from March 14 to 16, 2023. Members from the human, animal, and environmental health sectors participated in the meeting and carried out the following key activities.

AMS

- Adopted an outline for a guide to establishing DTCs in the DRC. (ACOREP needs to mobilize resources from partners to continue development of this guide.)
- Adopted the roadmap for the installation of DTCs.
- Presented the results of the 2022 Tripartite AMR Country Self-assessment Survey (TrACSS). For most sectors evaluated, scores improved from level A (no capacity) to D (demonstrated capacity) during the last four years. However, there are still opportunities for improvement.

IPC

- Recommended integration of AMR activities, including IPC assessments, into the 2023 work plan of the Directorate of Hygiene.

- Adopted an IPC manual, including sections on HAIs and AMR, standard precautions, additional and other precautions, and general information on vector control.

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

Activity 3.5.1: Establish/strengthen DTCs to oversee implementation of AMS interventions and conduct stewardship practices at designated health care facilities.

MTaPS continued to support DTCs in the provinces of Nord Kivu (Heal Africa and Kyeshero), Ituri (General Referral Hospital of Bunia and CME Nyankunde), and Kinshasa (Initiative Plus and Saint Joseph).

From January 5 to 6, 2023, MTaPS supported the DPS in Ituri to organize a field supervision visit to the General Referral Hospital of Bunia and CME Nyankunde Hospital to assess their adherence to the NEML in alignment with WHO AWaRe categorization. DTC members conducted the assessment in the two hospitals to evaluate antibiotic use in each department in line with AWaRe categorization. The supervision team noted that at least 60% of antimicrobials under the Access category are used to treat common infectious diseases, as recommended by WHO. The most commonly used antibiotics under the Access category are co-trimoxazole, amoxicillin, ampicillin, and gentamycin.

In addition, MTaPS supported the DTCs of Heal Africa, Kyeshero, Initiative Plus, and Saint Joseph to conduct their quarterly assessments of antimicrobial use as part of their CQI program. Data collected were related to antimicrobial prescribing patterns, patients' knowledge of medicines (especially antibiotics) prescribed, and dispensing time. The assessment also collected data on compliance with treatment guidelines for urinary tract infections (UTIs), malaria, and antibiotic prophylaxis in cesarean section.

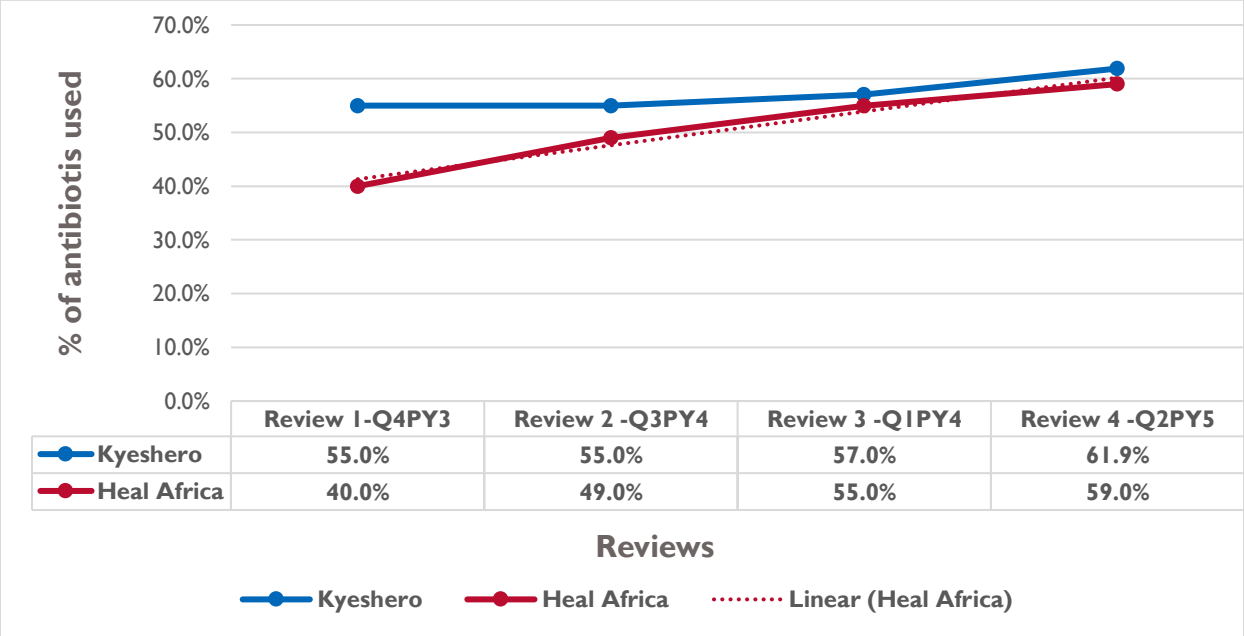


Figure 3: Trend in the use of antibiotics under the Access category in Heal Africa and Kyeshero Hospitals

Figure 3 depicts the trend in the use of antibiotics under the Access category at Heal Africa and Kyeshero Hospitals. Heal Africa experienced a significant improvement of this indicator at the fourth review (review 4 = 59%) as compared to the first review (review 1 = 40%). At Kyeshero Hospital, the last review (review 4-Q2PY5) met the WHO recommendation as more than 60% of antibiotics under the Access category were used to treat common infectious diseases

Heal Africa Hospital had good performance with adherence to AWaRe categorization; this reflects the effectiveness of its DTC in promoting adherence to guidelines and good prescribing behaviors in Heal Africa Hospital (figure 4).

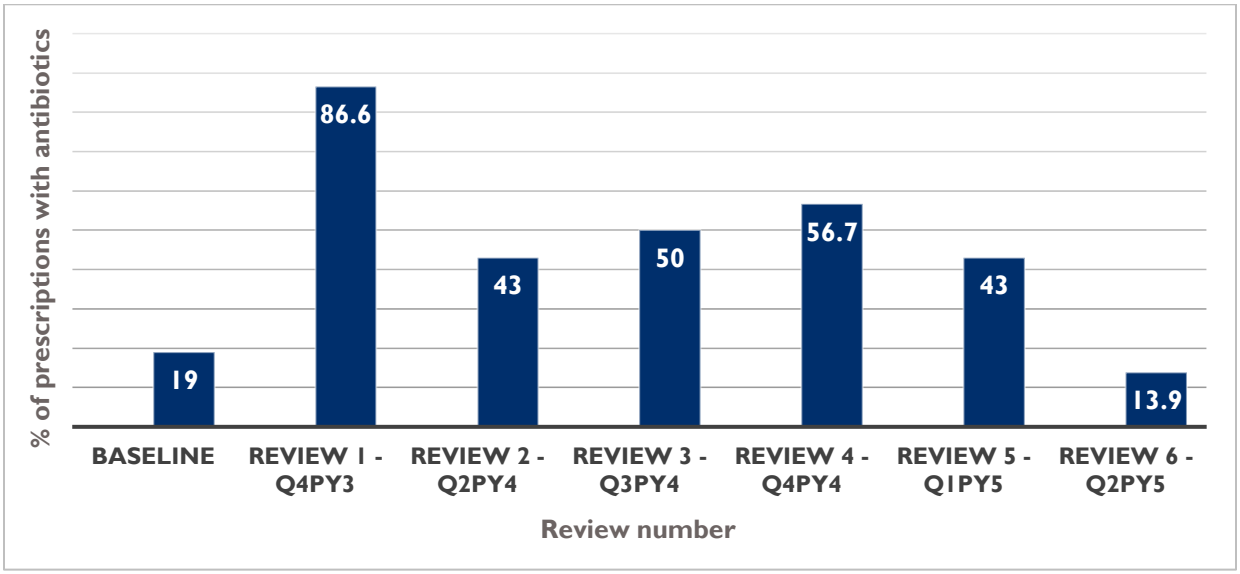


Figure 4: Trend in percentage of prescriptions with antibiotics in Heal Africa Hospital

Figure 4 depicts the trend of antibiotic prescribing behavior from the baseline to the sixth review. The figure shows improvement through a significant decrease in antibiotic use from 87% in review 1 to only 14% in review 6 (WHO standard = less than 30).

At Initiative Plus Hospital (CHIP), the percentage of prescriptions with antibiotics remained the same (33%) between the baseline data collected in June 2022 and the first review (review 1) in February 2023. CHIP DTC members decided to continue promoting the rational use of antibiotics to ensure that, at the next data review, this indicator meets the WHO recommended norm. At Saint Joseph Hospital, the percentage of prescriptions with antibiotics showed significant improvement from the baseline result (60%) to review 1 (38%) in July 2022, before increasing again at review 2 (53%) in February 2023. Saint Joseph Hospital DTC members were encouraged to promote the rational use of antibiotics to ensure that this indicator improves.

DTC members in each of the four hospitals analyzed a total of 60 patient files to assess the percentage of cases of uncomplicated and non-recurrent UTIs in their facilities treated as recommended by the treatment guidelines: 32% of UTIs were treated correctly at Heal Africa, whereas Kyeshero scored at 22%; Initiative Plus at 20% and Saint Joseph at 17%. Around 60% of uncomplicated and non-recurrent UTIs were treated as sexually transmitted infections.

BEST PRACTICES/LESSONS LEARNED

- To ensure sustainability, DTC members should demonstrate how DTC activities that support the rational use of medicines and supplies and the improvement of patient outcomes can reduce costs for the health system.
- Accountability and responsibility are required to implement recommendations for improvement. Without clear accountability and responsibility, recommendations will not be followed.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity & Description	Date
Activity 1.1.1: Provide technical and logistical support to the NC-AMR and related TWGs (AMS and IPC) for effective monitoring and planning of AMR activities. **Activity Description:** MTaPS will support ACOREP to organize meetings of the IPC and AMS subcommittees to evaluate their work plans and prepare the next meeting of the NC-AMR.	May 2023
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 TrACSS **Activity Description:** MTaPS will support the different sectors to organize a joint supervision during which participants will collect information that will help with filling out the template for the tripartite evaluation (TrACSS)	May 2023
Activity 2.1.1: Support the NC-AMR in conducting regular assessments of IPC practices, including implementation of guidelines and regulations in the animal and human health sectors. **Activity Description:** MTaPS will support the Directorate of Hygiene to carry out an evaluation of IPC components at the central level and in HFs in Kinshasa and the provinces of North Kivu and Ituri. In the same vein, MTaPS will work with the DPML on an evaluation of IPC components in animal HFs in Kinshasa.	April 2023
Activity 3.5.1: Strengthen DTCs established with MTaPS' support to oversee implementation of AMS activities and conduct stewardship practices at their respective facilities **Activity Description:** MTaPS will support the DTCs, ACOREP and the pharmacovigilance center to organize a quarterly data analysis meeting.	April 2023

Table 8. Quarter 2, FY23, Activity Progress, DRC—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.1.1: Provide technical and logistical support to the NC-AMR and related TWGs (AMS and IPC) for effective monitoring and planning of AMR activities. **Activity description:** In collaboration with other partners (e.g., WHO, FAO, IDDS), will continue to support the IPC and AMS TWGs in reviewing and updating their action plans and coordinating IPC and AMS interventions at the national, provincial, and facility levels and hold regular thematic meetings.	5	1.1	MTaPS met with ACOREP in collaboration with WHO, FAO, and other partners to support a quarterly AMR coordination meeting. Key results are: ▪ Adoption of the roadmap for the installation of DTCs. ▪ Adoption of the IPC manual divided into four sections: o HAIs and AMR o Standard precautions o Additional and other precautions o General information on vector control
Activity 3.5.1: Strengthen DTCs established with MTaPS' support to oversee implementation of AMS activities and conduct stewardship practices at their respective facilities **Activity description:** Support MOH in building the capacity of DTCs at designated facilities to oversee the implementation of AMS activities. As part of a CQI package, MTaPS will continue implementing data monitoring mechanisms for CQI and will develop facility AMS improvement plans through a quarterly review process in MTaPS-supported HFs.	5	3.5	MTaPS continued to support DTCs in Kinshasa, Bunia, and Goma to conduct their quarterly review as part of the CQI program.

MATERNAL, NEWBORN, AND CHILD HEALTH (MNCH), FAMILY PLANNING (FP), REPRODUCTIVE HEALTH (RH), AND TUBERCULOSIS (TB) ACTIVITIES

OVERVIEW

MTaPS' MNCH/FP/RH goal in DRC is to strengthen the country's pharmaceutical system to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medicines, medical products, and medicine-related pharmaceutical services.

Activities for year 5 are built on the work that MTaPS achieved in previous years, as well as achievements of the previous USAID-funded Systems for Improved Access to Pharmaceuticals and Services program. These activities include coordination among the various country programs and partners that are providing pharmaceutical system or supply chain support, implementing policies and practices that optimize use of CDRs, building technical and managerial capacities in pharmaceutical management in coordination with other partners (Global Health Supply Chain–Technical Assistance [GHSC-TA] and Integrated Health Program [IHP], and the new MIHR, and Safe Surgery in FP and Obstetrics projects in eastern DRC), and strengthening civil society engagement by enhancing the involvement of formal groups that have community representation in medical product management (monitoring and oversight at HFs and CCSs).

CUMULATIVE PERFORMANCE TO DATE

The MNCH and FP/RH portfolios contribute to DRC's efforts in achieving the SDGs and the targets for ending preventable child and maternal deaths by providing TA at all levels (DPSs, HZs, HFs, CDRs, and community organizations). This assistance contributes to building stewardship, technical, and managerial capacities to reduce barriers to access to essential MNCH and FP/RH products and supplies in the North Kivu and Ituri provinces in eastern DRC and to strengthen management of medical products and the pharmaceutical system in general. During previous years (FY20, FY21, and FY22), MTaPS supported the medicine TWGs in Nord Kivu and Ituri to strengthen their stewardship roles. This support was essential for establishing an MNCH subgroup with a special focus on MNCH health products and resulted in effectively using the national supply chain system to distribute medicines and more effective collaboration with donors and implementing partners (USAID, Global Fund [GF], EU, UNICEF, MSH, Cordaid, Caritas, Sanru, ASRAMES, Cadimebu, IMA, Save the Children, UNFPA, MEDAIR, PPSSP, etc.). To date, the medicine TWGs are fully functional and are coordinating partner support. Thanks to the TWGs' leadership, action has been taken to ensure the effective redistribution or reallocation of commodities close to expiry and to mitigate the risk of waste (the value of commodities at high risk of expiry at the ASRAMES CDR in Nord Kivu was estimated at $179,740).

Throughout PY5, MTAPS has provided ongoing support to 350 community members who monitor and oversee medicine management—particularly with respect to MNCH and FP/RH commodities—with a focus on stock management, accountability between the HFs and the community, logistics data collection, storage conditions, transportation and distribution of medicines, findings from the stock taking, and any other medicine management issues. Key results to date include establishing good

collaboration between health center managers and community health workers in Nord Kivu, improved transparency in managing health commodities and finances, and improved accountability in medicine management through the effective participation of the community in inventory management.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

OBJECTIVE 1: PHARMACEUTICAL SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.2: Support the functioning of provincial medicine TWGs in Nord Kivu and Ituri

On January 14, MTaPS supported the Nord Kivu DPS to assess the progress in activity implementation by the provincial medicines TWG in 2022 and to plan for 2023. To this end, MTaPS supported the Nord Kivu DPS in organizing a three-day TWG meeting, and representatives from supply chain stakeholders, such as PRODS (European Union), MSF, CORDAID, IMA, PDSS, MEDAIR, PPSSP, SANRU, CARITAS, ASRAMES, DPS, health-specific programs (including TB, malaria, RH, HIV) and civil society participated in this meeting. A total of 18 members, including 5 women, attended the meeting. Participants agreed to constitute a subgroup to produce the first draft of the TWG activities plan for 2023 and share it with all stakeholders for input before adoption and validation. This subgroup will work under the coordination of the TWG president. Additionally, TWG members validated the invoices of ASRAMES-CDR for medicine distribution conducted semiannually under the PDSS project financed by the World Bank.

On February 22, 2023, MTaPS supported the MNCH/FP subgroup, in collaboration with CORDAID, UNFPA, and PNSR to examine the causes of stock-outs in contraceptive commodities at the HZ level in the province of Nord Kivu. The subgroup identified two major causes: (1) the delay in the distribution of UNFPA-funded contraceptive products due to delays in the official handover ceremony between the DRC government and UNFPA for the stock purchased by the government through the UNFPA and (2) some HZs' non-compliance with the schedule for reordering commodities. To address these issues, the subgroup made two recommendations: (1) UNFPA to immediately distribute contraceptives from its own stock and (2) MNCH-FP sub-committee to centralize HZ orders for MNCH and FP products in a distribution plan prior to validation by the TWG.

On February 23, 2023, MTaPS supported the Nord Kivu DPS in organizing a supply chain and stock management review session during the provincial medicine TWG meeting. Participants included representatives from supply chain stakeholders, DPS, specific health programs, and civil society. A total of 14 participants, including 4 women, attended the meeting. During the meeting, participants reviewed and approved the distribution plans for malaria, HIV-AIDS, TB, and MNCH products and PPE for COVID-19 covering the period from January to March 2023. Additionally, TWG members discussed the validation of the TWG action plan for 2023.

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

Activity 3.2.1: Assist the DPS and HZs to strengthen the data collection system to improve the availability, quality, visibility, and use of logistics data for decision making

In January, MTaPS worked with PNAM to discuss the new tool for the analysis of commodity consumption data to support *Unité Technique de Gestion Logistique* (UTGL) activities. This Excel tool

helps to forecast the contraceptive health commodities needs of the reduced commodities package used for the community care sites, as well as to analyze consumption data of health products in general. During the month of February, PNAM recommended MTaPS to finalize the update of the tool and organize a meeting to officially present the tool to PNAM technical staff before sharing it with all stakeholders. This meeting is scheduled for the next quarter.

MTaPS continued to support the DPSs in Nord Kivu and Ituri provinces to improve the quality and visualization of commodity data by building the capacity of health workers to use paper data collection and reporting tools and capturing data in DHIS2 and InfoMED at HZs. The newly created UTGLs are intended to play a critical role in commodity data management, collection, and analysis. For this reason, MTaPS started supporting PNAM to establish UTGLs in Nord Kivu and Ituri provinces.

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

Activity 5.2.1: Collaborate with the MSSFPO and MIHR projects to support HZs to ensure the availability of the reduced package of FP products at the community level in Nord Kivu and Ituri provinces.

In previous months, MTaPS collaborated with MIHR and GHSC-TA projects to forecast USAID-supported HZs' needs for FP products in Nord Kivu and Ituri provinces. MTaPS supported GHSC-TA and MIHR to develop a supply plan to secure the availability of FP products and supplies. This is expected to contribute to improved availability of the reduced package of FP products.

Based on the quantification results, USAID approved an order for FP products placed through GHSC-PSM/FTO as summarized in the table below.

Contraceptives	Ordered quantity
Levonorgestrel 30 mcg 35 tablets/cycle, 1 cycle [Bayer] [Microlut 35]	8,640
Levonorgestrel 75 mg/rod w/trocar, 5-year efficacy, 2 rod implant, 1 each [Bayer] [Jadelle]	14,100
Copper TCu380A intrauterine device, 300 each [Pregna] [TCu380A]	36
Medroxyprogesterone acetate 150 mg/mL, IM injection (1 mL vial), w/AD syringe, burn boxes, 1 each [Mylan] [Contrasafe]	52,800
Etonogestrel 68 mg/rod, 1 rod implant, 1 each [N.V. Organon] [Implanon NXT]	16,560
Levonorgestrel 1.5 mg tablet, 1 tablet [Mylan] [Revoke 1.5]	22,500
Levonorgestrel 30 mcg 35 tablets/cycle, 1 cycle [Bayer] [Microlut 35]	17,280
Levonorgestrel/ethinyl estradiol 150/30 mcg + placebo, 28 tablets/cycle (PS), 1 cycle [Mylan] [Zinnia P]	147,168
Medroxyprogesterone acetate 104 mg/0.65 mL, SC injection (Uniject device), 1 device [Pfizer] [Sayana Press]	14,800
Levonorgestrel 75 mg/rod w/trocar, 5-year efficacy, 2 rod implant, 1 each [Bayer] [Jadelle]	28,200
Standard days method color-coded plastic beads, 1 each [Cycle Technologies] [CycleBeads]	6,250

On March 31, 2023, MTaPS worked with MIHR to prepare the distribution plan for the above-described products, which are expected by early May 2023.

BEST PRACTICES/LESSONS LEARNED

- Good collaboration with Cordaid, UNFPA, and PSR allowed for effective monitoring of the causes of contraceptives stock-outs at HZs to identify solutions to mitigate the risk of future stock-outs.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Work with DPM to establish an autonomous pharmaceutical regulatory agency in DRC for sustainable registration of essential medicines, especially for MNCH, FP/RH, and TB medicines	April 2023
Activity 1.1.2: Support the functioning of provincial medicines TWGs in Nord Kivu and Ituri	April 2023
Activity 1.2.1: Enhance the role of CODESAs and community outreach units (CACs) in health commodities management at the health center and community levels	April 2023
Activity 3.2.1: Assist the DPS and HZs to strengthen the data collection system to improve the availability, quality, visibility, and use of logistics data for decision making	April 2023
Activity 5.1.1: Support DPS to implement recommendations from the survey on the consumption of contraceptives in the private sector to fill the information gap on contraceptive couple years of protection in Nord Kivu and Ituri	April–May 2023
Activity 5.2.1: Collaborate with the MSSFPO and MIHR projects to support HZs to ensure the availability of the reduced package of FP products at the community level in Nord Kivu and Ituri provinces	May 2023

Table 9. Quarter 2, FY23, Activity Progress, DRC—MNCH

Activity	MTaPS Objective(s)	MNCH Result(s)	Activity Progress
Activity 1.1.2: Support the functioning of provincial medicine TWGs in Nord Kivu and Ituri **Activity description:** MTaPS will continue to highlight MNCH, FP, and TB issues as important topics to be discussed at medicine TWG and related sub-group meetings. The provincial medicine TWGs include IPs as members. Strengthening the functionality of the provincial medicine TWGs provides an opportunity for the DPS to steward and coordinate partners' support and to provide appropriate recommendations to address supply chain issues,	1	1.1	That is an ongoing activity. MTaPS continues collaborating with other stakeholders to support the medicine TWG and sub-groups to strengthen their functionality and provide an opportunity for the DPS to steward and coordinate partners' support in Nord Kivu and Ituri provinces
Activity 3.2.1: Assist the DPS and HZs to strengthen the data collection system to improve the availability, quality, visibility, and use of logistics data for decision making **Activity description:** MTaPS will work with PNAM, DPS, and other partners to facilitate the establishment of the newly created Logistics Management Unit (LMU) or UTGL in Nord Kivu and Ituri provinces. MTaPS will continue assisting HZs and facilities in improving LMIS data collection and reporting using the existing paper-based system and facilitating data capture in DHIS2 at the HZ level for migration into and visualization in InfoMED, particularly for MNCH, FP/RH, and TB commodities.	3	3.2	MTaPS has already established the LMU (UTGL) in Ituri province. The establishment of UTGL in Nord Kivu was postponed because of the escalation of insecurity in three of the five MTaPS-supported HZs. Pending improvement of the security situation, the establishment of UTGL is rescheduled to take place in April.
Activity 5.2.1: Collaborate with the MSSFPO and MIHR projects to support HZs to ensure the availability of the reduced package of FP products at the community level in Nord Kivu and Ituri provinces **Activity description:** MTaPS is working in collaboration with other partners, including USAID GHSC-TA, MSSFPO, and UNFPA to ensure that the reduced FP package is available at the community level. MTaPS started assisting HZs and CDR to streamline the process for the packaging of the reduced FP kit and implement a last mile distribution mechanism from the CDRs to the CCSs to ensure that FP commodities reach community points of care.	5	5.2	MTaPS, in collaboration with MIHR and GHSC-TA projects, conducted the quantification of FP commodities based on the needs for FP products in Nord Kivu and Ituri provinces. A supply plan was also developed, and FP commodities were ordered and expected to be delivered in the coming weeks. This will allow improved availability of the reduced package.

F. ETHIOPIA

OVERVIEW

Ethiopia is one of the countries selected to implement antimicrobial resistance (AMR) prevention and containment interventions through funding from the Global Health Security Agenda (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 provides targeted technical assistance to Ethiopian stakeholder institutions in three result areas of the AMR action package: effective multisectoral coordination (MSC), infection prevention and control (IPC), and optimizing use of antimicrobial medicines through effective implementation of antimicrobial stewardship (AMS) programs. These interventions are meant to support the country on its path to improving its Joint External Evaluation (JEE) scores to meet the priorities of GHSA compared to 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 Ministry of Health (MOH) and regional health bureaus (RHBs) to implement priority actions of the WHO Benchmarks for IHR capacities on MSC, AMS, and IPC. In the area of MSC, MTaPS' support as of September 2022 has contributed to the completion of 100% of capacity levels 2, 3, and 4 actions. MTaPS supported revision of the NAP-AMR, establishment of an AMR unit within MOH, and development of sector- specific action plans. To strengthen the operational capacity of the National AMR Advisory Committee (NAMRAC), MTaPS facilitated its restructuring, including updating its membership to ensure broader stakeholder participation, revision of its terms of reference (TOR) and development of TOR for its IPC and AMS technical working groups (TWGs). In PY5, MTaPS engaged with various civil society organizations, including the women's federation and youth federations, for an AMR awareness and sensitization forum. In addition, to increase multisectoral stakeholder engagement in implementing the NAP-AMR, the sector-specific AMR action plan for the human health, animal health, and the environment sectors developed with MTaPS' support was officially launched during the World Antibiotic Awareness Week (WAAW) 2022.

In AMS, MTaPS supported the practical implementation of AMS interventions at selected hospitals and revision of the National Essential Medicines List (NEML) and national standard treatment guideline (STG) for general hospitals, based on the World Health Organization's (WHO) access, watch, and reserve (AWaRe) categorization of antibiotics for the first time in Ethiopia. As of September 2022, MTaPS' support contributed to improving AMS by completing 75% of capacity level 2, 50% of level 3, and 14% of levels 4 and 5 benchmark actions. As part of strengthening AMS and IPC programs, MTaPS is working with MOH to implement quality improvement (QI) programs at five hospitals with a focus on optimizing use of antimicrobials for surgical prophylaxis and improving hand hygiene practices.

As part of improving the country's capacity in IPC and emergency response to COVID-19, MTaPS supported revision of the IPC reference manual and IPC training materials and built the capacity of IPC focal persons at the national, regional, and facility levels by providing training to 2,712 health care

providers (HCPs). MTaPS also supported MOH in identification of gaps in the national IPC program (using WHO's national Infection Prevention and Control Assessment Tool 2 [IPCAT2] and the design of a central-level IPC improvement plan) and provided technical support to HFs to improve their IPC performance (using the WHO Infection Prevention and Control Assessment Framework [IPCAF] tool. An initial group of 21 hospitals conducted IPCAF self-assessments with support from MTaPS. A later assessment conducted at four of the hospitals showed substantial improvement in their IPCAF score with one of the four progressing from an inadequate IPC score to the higher end of the basic level score, a second from the basic to the intermediate level, and the other two hospitals maintaining their IPC levels but improving their IPC score by 20–25%. In PY5, MTaPS contributed to the development of health care-associated infection (HAI) surveillance system technical guidance documents and the establishment of IPC centers of excellence (COEs) at selected HFs in collaboration with MOH and the International Center for AIDS Care and Treatment Programs (ICAP). As of September 2022, MTaPS' support contributed to improving Ethiopia's progress toward achieving higher JEE scores in IPC by supporting completion of 80% of capacity level 2, 83% of level 3, and 40% of level 4 of the GHSA benchmark actions.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

In Q2, MTaPS Ethiopia portfolio accomplished the following key results:

- MTaPS provided technical assistance to Amhara RHB for an advocacy workshop for the AMR agenda for health care professionals, selected hospitals, and institutions in the region where the roles and responsibilities of different actors in cascading the NAP-AMR was thoroughly discussed.
- MTaPS supported the MOH's Pharmaceutical and Medical Equipment Lead Executive Office (MOH/PME-LEO) to provide a training course on AMR to newly assigned staff of the office following the reform at MOH and experts from key multisectoral stakeholders.
- As part of the QI program initiated this year, MTaPS, in coordination with MOH, supported four hospitals to deliver an integrated onsite training on IPC and AMS to address the knowledge and skill gaps identified during the baseline assessment.
- To increase effective use of the STG by prescribers, MTaPS supported MOH/PME-LEO to conduct an advocacy and familiarization event on the STG and its implementation manual, both of which were developed with support from MTaPS.
- MTaPS supported the Addis Ababa City Administration Health Bureau (AACAHB) and Amhara RHB to conduct an integrated training course on AMS and HAIs for health care professionals. This training is expected to improve collaboration between targeted interventions, such as AMS and priority public health programs, such as HIV/AIDS and TB.

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support MOH and national AMR MSC stakeholders to implement and monitor progress of the NAP-AMR.

In this quarter, MTaPS provided technical assistance to the Amhara RHB to advocate for the AMR agenda to the leadership and health care professionals of selected hospitals and institutions in the region. Through advocacy workshops organized at Injibara (March 4) and Kombolcha (March 11) towns, MOH and the Amhara RHB, in collaboration with MTaPS and WHO, brought together 158 participants (9

female), including directors and experts from the Amhara RHB, QI representatives, hospital CEOs, hospital medical directors, AMS teams, drugs and therapeutics committee (DTC) members, and IPC professionals. In addition, representatives from the regional Food and Drug Administration office and Amhara Public Health Institute (APHI) attended the workshop. The main agenda of the advocacy workshops was to discuss the roles and responsibilities of the RHB, hospital management team, and health professionals in cascading the NAP-AMR in the region. After a thorough discussion on the subject, the RHB took the commitment and responsibility to mobilize all AMR stakeholders in the region, reinstate the regional AMR advisory committee, and closely follow-up the cascading of the NAP-AMR in the region.

Additionally, MTaPS participated in the MSC AMR monitoring and evaluation (M&E) training workshop organized by the World Organization for Animal Health (OIE), from March 6 to 9, 2023, at Adama. The event, attended by 27 participants (3 female) drawn from various national and international organizations, was part of the activities under the AMR-Multi-Partner Trust Fund (MPTF) project. It was meant to equip national AMR stakeholders and AMR advisory committee members with the necessary skills and tools for M&E of progress in implementing the NAP-AMR. The training provided input for developing a robust theory of change and results framework and reviewing the NAP-AMR's M&E plan, which contributes to progress in the WHO benchmark level 4 action on the development and implementation of a NAP-AMR M&E framework.

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

MTaPS supported the MOH/PME-LEO to provide a training course on AMR from March 16 to 19, 2023, at Adama. Thirty health professionals (5 female) drawn from MOH, the Ministry of Agriculture (MOA), Ethiopian Environmental Protection Agency (EEPA), RHBs, and selected hospitals attended. The agenda included presentations, plenary discussion, group activities on AMS tools (including audit and feedback), and AWaRe classification of antibiotics. Experience-sharing presentations were also made on key topics, including the status of AMR on selected bacteria isolates from animal sources, national antimicrobial consumption (AMC) survey findings, and implementation of the Ethiopian antimicrobial surveillance program.

RESULT AREA 2: IPC

Activity 2.2.1: Support MOH and selected HFs to regularly track information on IPC and use it for continuous quality improvement (CQI)

As part of the QI program initiated in PY5, MTaPS supported targeted hospitals to identify gaps in areas of IPC and AMS by conducting assessments. Based on the identified gaps, improvement plans were developed by each hospital, one of which was to increase awareness and knowledge of staff on IPC and AMS. Accordingly, MTaPS in coordination with MOH,

IPC-AMS training participants demonstrating hand hygiene technique at MCM Korean Hospital, Ethiopia, February 16, 2023. Photo Credit: MTaPS

supported four hospitals to deliver integrated IPC and AMS training on IPC and AMS at Bushoftu (February 1-3), MCM Korean (a private hospital, February 15-17), Tibebe Ghion (February 20-22) and Eka Kotebe hospitals (February 28–March 1). The training sessions for 139 participating health care workers (70 female) included awareness raising/sensitization on relevant IPC and AMS topics, as well as discussion with the hospital CEOs on ways to speed up actual implementation of the facility IPC-AMS improvement plans at the respective hospitals.

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

Activity 3.1.1: Support adherence to the STGs, EMLs, and other related AMS standards

In this quarter, MTaPS supported the MOH/PME-LEO in conducting an advocacy and sensitization event on the STG and its implementation manual, both previously developed with support from MTaPS. This sensitization occurred during the AMR training event from March 16 to 19, 2023, for 30 professionals (5 females) drawn from multisectoral institutions, RHBs, and selected hospitals. During the event, presentations were delivered on the STG, its implementation manual, and status of development of a mobile application to enhance STG utilization. At the end of the event, 123 copies of the STG and 100 copies of its implementation manual were distributed to representatives of general hospitals.

Recognizing the experience in supporting the revision of the STG and EML, MTaPS was requested by the Ethiopian Food and Drug Authority (EFDA) to provide technical assistance on revising the second edition of the Ethiopian Medicines Formulary (EMF), which was last updated in 2013. MTaPS contributed by participating as a member of the task force established by EFDA to oversee the revision process. The task force had two meetings on January 11 and February 20-24, 2023, attended by 13 (3 female) and 14 members (3 female), respectively. So far, the task force has designed the outline and developed a mapping tool to determine the list of medicines for inclusion, modification, or deletion from the old EMF. Medicines for the third edition were mapped using the second edition EMF, Ethiopian EML, Ethiopian Health Insurance list, and the community pharmacy's list. The revised EMF will enable HCPs at all levels to have access to quick and unbiased information on medicines and improve the evidence-based prescribing, dispensing, and use of antimicrobials.

Activity 3.2.1: Improve awareness and knowledge on AMR to achieve behavioral change in antimicrobial prescribing and use

MTaPS supported the AACAHB and Amhara RHB in conducting an integrated training course on the AMS program and HAIs for health care professionals drawn from 26 public hospitals, 2 private hospitals, and 1 health center in the 2 regions. The training was conducted January 26-29, March 5-7, and March 12-14, 2023, at Adama, Injibara, and Kombolcha towns respectively; 146 health care professionals (14 female) benefited from the training. The objectives of the training were to build the knowledge and skill of HCPs on the AMS program and HAIs and to strengthen the collaboration among targeted interventions, such as AMS, IPC, and public health priority programs, such as HIV/AIDS and TB. At the end of the training, participants developed a draft action plan to implement AMS programs in their respective HFs. As part of the need to ensure the sustainability of trainings and upon request from the MOH/PME-LEO, MTaPS has started working with MOH in developing an e-Learning course on AMS. Accordingly, MTaPS supported MOH in organizing a workshop for March 23-25, 2023, at Adama to review the contents and finalize the storyboard drafted by the consultant. Ten (all male) subject matter

experts and information technology professionals drawn from MOH, EPHI, Yekatit 12 Hospital, Addis Ababa University, and MTaPS attended the event. As part of the next steps, the consultant will prepare an alpha version of the e-module for final review and validation.

Activity 3.5.1: Strengthen AMS implementation at targeted HFs

In this quarter, MTaPS provided onsite and remote support to five hospitals to speed up implementation of the QI programs at surgical wards. MTaPS utilized mixed approaches for site-level technical assistance, such as supportive supervision and remote support, including phone calls, virtual meetings, email, and social media (Telegram) groups. This approach has helped the timely response to questions regarding adherence to guidelines, use of various clinical tools introduced as part of the QI initiative, use of data analysis tools, interpretation of data, and access to critical IPC supplies. As part of the site visits, MTaPS attended one of the morning sessions at MCM Korean Hospital (private facility) on February 1, 2023, where the findings of the baseline assessment were presented to the hospital's multidisciplinary surgical case team. After discussing the key findings, the surgical case team agreed to work on key areas of improvement, such as refining glycemic monitoring and management practice for preventing surgical site infections, reviewing existing protocols in use by the facility, and optimizing antibiotic dosing, timing for initiation, re-dosing, and duration of prescribing for purposes of surgical prophylaxis.

BEST PRACTICES/LESSONS LEARNED

- The application of a mixed approach to providing onsite and remote assistance to health care facilities has motivated facility staff to actively engage in implementing interventions to prevent and contain AMR in surgical wards. The mixed approach covers provision of various tools, including data capture tools, guidelines, and SOPs. Regular and consistent communication using different options, including phone calls, emails, and social media groups, facilitated information sharing and exchange of ideas.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Support Ethiopian Pharmacy Association (EPA) to provide TOT on AMR to health professionals	April 2023
Support EPA to celebrate Antimicrobial Day	June 2023
Support MOH/PME-LEO to revise the AMS practical guide (first edition, 2018) to address current updates on AMS, including AWaRe classification	April–May 2023
Continue mentorship and support for implementing the QI initiative on AMS and IPC	April–June 2023
Finalize and launch the AMS e-Learning course module	May–June 2023
Facilitate revitalization of NAMRAC; support national and regional AMR advisory committee meetings	April–May 2023
Work with MOH and IPC e-Learning consultant to develop the IPC e-Learning course	April–May 2023
In collaboration with MOH and RHBs, organize an experiential learning session on IPC-AMS improvements among MTaPS-supported hospitals	April 2023
Conduct endline assessment on the QI project under implementation at MTaPS-supported hospitals	May 2023

Table 10. Quarter 2, FY23, Activity Progress, Ethiopia

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.1.1: Support MOH and national AMR MSC stakeholders to implement and monitor progress of the NAP-AMR **Activity description:** Support MOH and national AMR MSC stakeholders to implement and monitor progress of the revised NAP-AMR 2021–2025.	5.4	1.1	MTaPS supported Amhara RHB to advocate the AMR agenda to HCPs in two events held at Injibara and Kombolcha towns. The events were organized by MOH and Amhara RHB, in collaboration with USAID MTaPS and WHO. In addition, MTaPS participated in the MSC AMR M&E training workshop organized by OIE at Adama, one of the activities under the AMR-MPTF project.
Activity 1.1.2: Support PMED in assuming full ownership for organizing effective MSC through regular meetings of AMR stakeholders, including animal health and environmental protection. **Activity description:** Support PMED in conducting regular meetings of AMR stakeholders, including NAMRAC and IPC and AMS TWGs and reviewing regional and sector- specific action plans.	5.4	1.1	The NAMRAC meeting could not be held because of changes made as part of recent MOH reforms. Previously, the leadership for multisectoral national AMR coordination was under the Medical Services General Directorate, which was dissolved in the reforms. The new lead for national AMR MSC is under discussion. MTaPS discussed the issue with MOH/PME-LEO. Based on PMELOE's request for options, MTaPS developed and submitted a concept note to guide decision making.
Activity 1.2.1: Support MOH and national AMR MSC stakeholders to improve awareness, education, and training on AMR **Activity description:** Support to improve awareness on AMR among the community, health care professionals, and policymakers through evidence-based information sharing, communication, and education	5.4	1.11.2	MTaPS supported the MOH/PME-LEO in conducting a training course on AMR, AMS, and IPC for 30 health professionals (5 female) drawn from MOH, the Ministry of Agriculture, EEPA, RHBs, and selected hospitals
Activity 2.2.1: Support MOH and selected HFs to regularly track information on IPC and use it for CQI **Activity description:** Provide TA to selected hospitals for orientation, guidance, and mentorship on using the national IPC assessment tool for CQI of IPC. Conduct training on CQI. Support HFs in undertaking annual IPC assessments as part of their regular review cycle. Support MOH in implementing the national HAI surveillance guidance at selected hospitals.	5.4	2.2	As part of facilitating implementation of the QI program initiated this year in collaboration with MOH, MTaPS supported provision of IPC-AMS integrated training at four hospitals. During the training, findings of the hand hygiene baseline assessment were presented to the hospitals' management, and discussions were held on the proposed interventions by the respective hospitals' IPC and AMS committees. Additional training will be provided at the remaining hospitals to continue advancing implementation of the QI program.
Activity 2.2.2: Build capacity of MOH to provide IPC training to HCWs **Activity description:** Support CSD/MOH and the national IPC TWG in developing an e-Learning platform for IPC training based on the IPC guideline. Support MOH and selected eight HFs in providing IPC-specific in-service training for HCWs, using both platforms and ensure incorporation of IPC trainings to the approved courses for CPD.	5.4	2.2	USAID MTaPS has been working with MOH to develop an IPC e-Learning course. In this quarter, MTaPS engaged a consultant to develop the e-Learning course and held a preliminary meeting with the consultant on March 7, 2023, on the course's scope and technical and administrative requirement expectations. MTaPS facilitated a joint discussion between the consultant and the national IPC program coordinator on the development of the e-Learning course and roles of MTaPS and MOH.

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 2.5.1: Support MOH in sustaining IPC improvement practices at national, regional, and facility levels **Activity description:** Advocate and support MOH and RHBs to create model IPC sites (COEs) to showcase best practices and serve as learning sites for others. Includes TA to establish criteria for identifying the sites and provide targeted support to selected hospitals to build their capacity for IPC and help them fulfill the requirements for model sites.	5.4	2.5	In coordination with MOH, MTaPS has a plan to scale up the QI program to three more sites in addition to the existing five hospitals; hence, MTaPS provided training to Debre Markos Hospital and conducted a site visit to Tirunesh Beijing Hospital to initiate the process of implementation. The site-level support will continue to bring those new hospitals up to speed with the other five sites.
Activity 3.1.1: Support adherence to the STGs, EMLs, and other related AMS standards **Activity description:** Support to popularize and disseminate both EML and STG to larger audiences in human health care	5.4	3.1	MTaPS provided TA to the EFDA to revise the EMF 2013 edition. The task force conducted two meetings in Addis Ababa. MTaPS also supported the MOH/PME-LEO in conducting an advocacy and familiarization event on STG and its implementation manual and facilitated distribution of hard copies of the STG and implementation manual to hospitals.
Activity 3.2.1: Improve awareness and knowledge on AMR to achieve behavioral change in antimicrobial prescribing and use **Activity description:** Support PMED and RHBs in capacity building of HCPs and HF management to enhance their knowledge and skills on AMS program design and implementation. Strengthen implementation of AMS programs at designated HFs. Support development of AMS e-Learning course.	5.4	3.2	MTaPS supported AACAHB and Amhara RHB in conducting an integrated training course on the AMS program and HAIs for health care professionals. MTaPS also organized onsite training support to hospital staff based on the findings of baseline assessments conducted as part of the QI initiative being implemented in the surgical wards. MTaPS is also supporting MOH in the development of a self-paced AMS e-Learning module on AMS for health professionals.
Activity 3.5.1: Strengthen AMS implementation at targeted HFs **Activity description:** Support in developing and/or adapting job aids, such as audit and feedback tools, SOPs, AMS data collection tools for drug use evaluation, antimicrobial use and consumption surveys, and training on AMS core components. Support the standardization of implementation approaches in selected hospitals as models to optimize antimicrobial use.	5.4	3.5	MTaPS, in collaboration with MOH, has provided onsite support to hospitals implementing QI program through supportive supervision and remote support mechanisms. This will continue until a final assessment is conducted to understand the changes made because of the QI interventions; then MOH will determine ways to scale up the identified best practices and share experiences with other hospitals.

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 seeks to build 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

Over about 17 months beginning in April 2021, MTaPS assisted Pusjak PDK and the InaHTAC through one full round of the HTA topic selection process, starting from: (i) literature review, (ii) gathering opinions from stakeholders, (iii) presenting recommendations, redefining assessment criteria, (iv) designing an assessment tool and weighting HTA topics, (v) inviting stakeholders to submit HTA topics, (vi) verifying, and (vii) deliberating on the topics, to (viii) disseminating topic selection results. As part of its support for HTA selection, MTaPS also supported Indonesia HTA Committee (InaHTAC) to develop HTA literacy campaign materials and uploaded them on the Pusjak PDK Instagram and its website. With MTaPS' technical assistance, InaHTAC implemented a topic selection process that is transparent and open to feedback from stakeholders. This is in line with MTaPS' goal of supporting InaHTAC to have a transparent HTA topic selection process.

A research team from Gajah Mada University and Pusjak PDK (MOH) completed a capacity building module for the HTA study on trastuzumab consisting of a Markov cohort analysis and calibration using the TreeAge app for the calibration process, and each participant has a TreeAge file that can be used as an analysis template with parameter values that can be changed according to data availability.

Regarding the PE Activity, Pusjak PDK and MTaPS agreed to conduct a training on PE tracking as the final activity until May 2023 and will invite the National Health Account (NHA) team, Pusjak PDK MOH, Directorate General of Pharmaceutical and Medical Devices (DG Farmalkes) MOH, and Indonesian Food and Drug Authority (FDA). MTaPS also facilitated a meeting between Pusjak PDK and DG Farmalkes to discuss the implementation of PE tracking in 2023. A PE Tracking Team Decree is needed with clear tasks and functions, including the involvement of other related technical units.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

OBJECTIVE 1: 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

MTaPS assisted Pusjak PDK and InaHTAC in one round of the HTA topic selection process for HTA topics for 2023. Building on its ongoing support to Pusjak PDK and InaHTAC in conducting a full round of the HTA topic selection process for 2023, MTaPS supported Pusjak PDK and InaHTAC in completing the last steps: deliberation and dissemination of topic selection results. InaHTAC selected three of the five HTA study topics for 2023, namely (i) the drug Bevagen, which is biosimilar to recombinant humanized anti-vascular endothelial growth factor (VEGF) monoclonal antibody bevacizumab, which is used to treat certain types of cancer and eye diseases, (ii) Abirateron Acetate, a drug used to treat prostate cancer, and (iii) Pembrolizumab, which is a type of cancer immunotherapy drug known as a monoclonal antibody.

The final round was the dissemination meeting on February 3, 2023, that was chaired by the chairperson of InaHTAC and attended by representatives from associations such as specialist doctors, hospitals, drug companies, medical devices companies, the National Health Insurance (BPJS), Policy Center of Health Financing and Decentralization (Pusjak PDK) MOH, DG Farmalkes MOH, and representatives of HTA agents from universities. A total of 71 participants (42 female, 29 male) attended. Furthermore, MTaPS supported InaHTAC in writing feedback letters to proposers whose topics have not been selected for the 2023 HTA study and provides the opportunity for them to submit topics again in the next period, which is planned to be opened throughout the year, to allow proposers to complete the required documentation.

For the next step for this activity, MTaPS supported Pusjak PDK and InaHTAC, which recorded all the topic selection processes in a manual that was discussed on March 16-18, 2023. The HTA topic selection manual consisted of (i) an explanation of the importance of the HTA topic selection process, (ii) submission of topic proposals, (iii) administrative and technical verification, (iv) prioritization of topics, (v) determination of priority topics, and (vi) dissemination of decision results. MTaPS, Pusjak PDK, and InaHTAC will complete the HTA topic selection manual by May 2023.

Stakeholder meeting and finalization of the HTA topic selection manual, Indonesia, March 16–18, 2023. Photo credit: MTaPS

Activity 1.1.2: Build capacity of key stakeholders on HTA methods

To build capacity for HTA studies, MTaPS provided technical support to Pusjak PDK and Gajah Mada University (UGM) researchers, who are carrying out the Trastuzumab study, in calibrating the cost-effectiveness model with real world data (RWD) obtained from breast cancer patient registers in two hospitals (Sardjito Yogyakarta and Dharmais Jakarta). Pusjak PDK and UGM researchers completed module topics up to RWD calibration on March 15, 2023. The team calibrated the model against RWD survival data from the patient register by using TreeAge software and Markov construction methods that can be used as an analysis template with parameter values that can be changed according to data availability.

Activity 1.1.4: Strengthen the appraisal process for the HTA committee, InaHTAC

The appraisal process for the HTA committee consisted of two main parts: appraisal of the HTA assessment results carried out by HTA agents and appraisal of other aspects of health technology that are becoming HTA topics and are important in answering policy questions. The InaHTAC also requested MTaPS to adopt MCDA as a tool for the appraisal process. MTaPS' recommendations on how to improve the series of appraisal processes included formation of an ad hoc panel, which represents stakeholders and helps to avoid conflict of interest, and holding a meeting to decide on the appraisal result and set it forth in the form of an agenda, signed by the InaHTAC and the ad hoc panel. InaHTAC and Pusjak PDK are planned for trial of MCDA for HTA appraisal in April–May 2023.

Activity 1.1.5: Writing the HTAsiaLink Conference digest and publications

The digest of the ninth HTAsiaLink Conference received final approval from the HTAsialink board, InaHTAC, and USAID. It is available in soft copy and print format for distribution to stakeholders. MTaPS also wrote an abstract of the calibration results for the 2023 HTAsiaLink Conference.

The first paper entitled "A Framework to an Improved Collaboration on HTA in the Asia-Pacific Region: A Role for HTAsiaLink" has been completed with input from InaHTAC and has been circulated among HTAsiaLink board members to obtain input from each HTAsiaLink representative country. This input must be obtained and summarized no later than March 30, 2023, so that it can be submitted to international journals.

The second paper entitled "Practicing Real-World Evidence for Health Technology Assessment in Asia: Lesson from HTAsiaLink Countries" is currently at the stage of completion and internal review by the MTaPS team.

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

Activity 2.1.3: Organize, map, and analyze national-level PE data

On January 18, 2023, MTaPS supported a meeting between Pusjak PDK and DG Farmalkes to discuss the implementation of PE tracking in 2023, where the implementation requires collaboration between the two technical units in the MOH. DG Farmalkes is expected to be able to manage the data needed to track PE, including carrying out data cleaning, validation, and readying for mapping and analysis by Pusjak PDK. Therefore, a PE Tracking Team Decree is needed with clear tasks and functions, including the involvement of other related technical units.

On January 24, 2023, Pusjak PDK and Prodisfar discussed drug information sources to track drug availability in primary health care centers (PHCs) through an information system, namely "Selena," where 40 essential medicines for the PHCs were monitored. MTaPS assists in the mapping and analysis process, including presenting the required data from the 2022 PE tracking database.

MTaPS also compiled a review of tuberculosis drug expenditure. In addition, on March 17, 2023, a representative from the MTaPS Objective 2 team presented the results of tracking PE to InaHTAC as material for discussion for the HTA verification process, especially for expensive medicines in Indonesia.

Activity 2.1.4: Build capacity of the HA team to compile pharmaceutical expenditure data

MTaPS had planned to conduct a five-day training of PE tracking for Pusjak PDK, Indonesian FDA, DG Farmalkes, and the NHA team from March 27 to 31, 2023. However, the visa for the main trainer was not approved by the immigration office until March 27, 2023, and Pusjak PDK recommended that the training be delayed until May 2023, after Eid Mubarak.

In March, MTaPS worked to finalize the training agenda and prepare PE tracking training materials. In general, the training agenda includes an overview of the PE tracking methodology, collection and management of PE data, mapping of PE data to the SHA 2011-dimension, data analysis, preparation of policy briefs, and discussion of institutionalization of PE activities in Indonesia.

BEST PRACTICES/LESSONS LEARNED

- In selecting the HTA topic, deliberation became a lengthy process; the decision-making meeting was supposed to take two to three hours, but it turned out to be five meetings due to prioritizing HTA topics using MCDA for the first time, and it was difficult for InaHTAC members to score for each criterion because of the dissimilarity of expertise and perspective—there was data that needed to be explored more deeply through the consultation of several experts. However, InaHTAC agreed to continue using the MCDA approach, but after the verification process, an additional step is needed to deepen priority topics before deliberation is carried out. It is hoped that in the future Pusjak PDK and InaHTAC will be more skilled in using this method.
- Technical assistance successes in one area can pave the way to carry out work in related areas. Indonesia now has a systematic PE calculation and MTaPS can use the PE activity as an entry point to conduct a cross cutting program on PSS and procurement and supply chain management.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Five-day virtual/in-person training for HA team on PE tracking	May 9-12, 2023
Meeting on HTA appraisal results and capacity building	April–June 2023
HTA coordination meetings	April–June 2023
Technical assistance on PE year of 2022	April–June 2023

Table 11. Quarter 2, FY23, 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	**Deliberation and dissemination meetings for prioritizing HTA topics 2023 in January 2023** The objective of the meeting was to prepare for the deliberation meeting with Pusjak PDK in January 2023. MTaPS assisted in developing the following agenda for a more structured deliberation meeting: (1) continuing HTA topics prioritization, (2) discussion regarding the horizon scanning/active call-for-HTA topic, (3) discussion on the dissemination plan of the topic selection results, and (4) schedule agreement for deliberation discussion and dissemination. InaHTAC invited the following proposers and medical associations: Extracorporeal Shockwave Myocardial Revascularization (ESMR); Association of Indonesian Cardiovascular Specialists (PERKI) Transcranial magnetic stimulation (TMS); Department of RSCM Neurology & Association of Indonesian Neurosurgeons (PERDOSSI); Rapid Assessment of Diabetic Retinopathy (RADR); Department of Ophthalmology, Faculty of Medicine, Public Health, and Nursing (FKKMK); UGM; and Indonesian Ophthalmologists Association (PERDAMI). InaHTAC selected three of the five HTA study topics for 2023, namely (i) the drug Bevagen, which is biosimilar to recombinant humanized VEGF monoclonal antibody bevacizumab, which is used to treat certain types of cancer and eye diseases, (ii) Abirateron Acetate, a drug used to treat prostate cancer, and (iii) Pembrolizumab, which is a type of cancer immunotherapy drug known as a monoclonal antibody. The dissemination meeting on February 3, 2023, was chaired by the chairperson of InaHTAC and attended by representatives from associations such as specialist doctors, hospitals, drug companies, medical devices companies, BPJS, Pusjak PDK, Prodisfar, and representatives of HTA agents from universities. A total of 71 (29 male and 42 female) participants attended. Through this activity, InaHTAC has implemented a topic selection process that is transparent and open to feedback from stakeholders. This is one of MTaPS' goals in supporting InaHTAC to have a transparent HTA topic selection process. Furthermore, MTaPS supports InaHTAC in writing feedback letters to proposers whose topics have not been selected for the 2023 HTA study and provides the opportunity for them to submit topics again in the next period, which is planned to be opened throughout the year, to allow for proposers to complete the required documents.
	1.1	**Stakeholder meeting and finalization of the HTA topic selection manual, March 16-18, 2023** The preparation of technical guidelines for topic selection procedures was carried out through workshop activities held in Bandung by inviting members of InaHTAC and Pusjak PDK, as well as several representatives such as the Social Security Administration Agency—Health (BPJS-K), the National Formulary (Fornas), universities, and development partners. Online channels are provided for participants who cannot attend in person. On the first day, discussions were held on the draft topic selection guide with each person in charge of the topic selection stages. On the second day, the chairperson of Pusjak PDK and USAID representatives remarked that it was hoped that this HTA topic selection guide could become a common reference for prioritizing HTA topics in a transparent way and involving multiple stakeholders. Furthermore, preparation of the guide began with a discussing survey related to critical

Activity	MTaPS Objective(s)	Activity Progress
		issues in the topic selection management, such as the process of identifying active topics, scoring proposals, and deliberation. The third day was a parallel discussion related to technical matters in completing the guide. In this workshop, it was agreed that a mechanism for identifying active topics through meetings with key stakeholders—such as BPJS-K, Fornas, research institutions, and units/programs within the MOH—is to be adopted. An evaluation of meeting sessions was also carried out through a topic identification simulation by displaying 2021 pharmaceutical spending data that had been compiled by MTaPS and Pusjak PDK. InaHTAC was able to formulate an in-depth design for expensive drugs from PE data for 2021 to make it an HTA priority topic. The deliberation session simulation resulted in an agreement on the need for a meeting to mitigate prolonged discussions and conflicts of interest. Pusjak PDK and MTaPS agreed on various technical matters in completing the guide, such as the division of tasks in writing chapters and other sections as well as offline meetings at the Pusjak PDK office every Friday morning.
Activity 1.1.2: Build capacity of key stakeholders on HTA methods	1.1	Implementation of the study was constrained in data collection. The latest data on the cancer register at Sardjito Hospital has been obtained for analysis and there is still a need for capacity building for HTA techniques. The most recent data on the cancer register at Sardjito Hospital has been analyzed and the results presented in this forum. It also describes the three-year survival results for chemotherapy patients which will be used as a target for calibration of the trastuzumab Markov model with a construction module in TreeAge for participants' self-study, including construction; filling parameters through variables; basic analysis; calibration; and probabilistic sensitivity analysis. The meeting was attended by Pusjak PDK, the UGM research team, and MTaPS. **Meeting with the managing director of the cancer register, Dharmais Hospital, March 15, 2023** This hybrid meeting was held at Dharmais Hospital and attended by representatives from Dharmais Hospital, Pusjak PDK, and MTaPS, and the UGM research team joined online. This meeting discussed the need for cancer register data and requests for data according to the specifications needed for trastuzumab cost-effectiveness analysis. From this meeting, commitment was obtained from Dharmais Hospital to share cancer registers with Pusjak PDK and the UGM team. Next, the plan is to analyze the cancer register data at Dharmais Hospital combined with the register data from Sardjito Hospital. Module topics up to calibration have been completed by UGM and the Pusjak PDK research team, and each participant has a TreeAge file that can be used as an analysis template with parameter values that can be changed according to data availability. The team will review the calibration topic again at the next routine online meeting (March 24, 2023) and write an abstract of the calibration results for the 2023 HTAsiaLink Conference. Analysis of the Dharmais Hospital register data has also been planned with the UGM team leading this activity as a result of an increase in capacity in previous weeks.
Activity 1.1.4: Strengthen the appraisal process for the HTA committee, InaHTAC	1.1	On March 31, 2023, MTaPS and Pusjak PDK conducted a coordination meeting to discuss the HTA appraisal process. The appraisal process consisted of two main parts: appraisal of the HTA assessment results carried out by HTA agents and appraisal of other aspects of health technology that are becoming HTA topics and are important in answering policy questions. InaHTAC also requested MTaPS to adopt MCDA as a tool for the appraisal process. MTaPS' recommendations on how to improve the series of appraisal processes included formation of an ad hoc panel, which represents stakeholders and helps to avoid conflict of interest and holding a meeting to decide on the appraisal result and set it forth in the form

Activity	MTaPS Objective(s)	Activity Progress
		of an agenda, signed by InaHTAC and the ad hoc panel. InaHTAC and Pusjak PDK plan for trial of MCDA for HTA appraisal in April–May 2023.
Activity 1.1.5: Writing the HTAsiaLink Conference digest and publications	1.1	The digest of the ninth HTAsiaLink Conference has received final approval from the HTAsialink board, InaHTAC, and USAID. It is available in soft copy and print format for distribution to stakeholders. MTaPS also wrote an abstract of the calibration results for the 2023 HTAsiaLink Conference. The first paper entitled "A Framework to an Improved Collaboration on HTA in the Asia-Pacific Region: A Role for HTAsiaLink" has been completed with input from InaHTAC and has been circulated among HTAsiaLink board members to obtain input from each HTAsiaLink representative country. This input must be obtained and summarized no later than March 30, 2023, so that it can be submitted to international journals. The second paper entitled "Practicing Real-World Evidence for Health Technology Assessment in Asia: Lesson from HTAsiaLink Countries" is currently at the stage of completion and internal review by the MTaPS team.
Activity 2.1.3: Organize, map, and analyze national-level PE data	2.1	**MTaPS and Pusjak PDK meeting regarding plans for PE tracking activities in 2023 on January 18, 2023** MTaPS supported a preparation meeting between the Pusjak PDK and the Directorate General of Pharmaceuticals and Medical Devices to discuss implementation of PE tracking in 2023, where implementation required collaboration between the two technical units in the ministry. The Directorate of Pharmaceutical Production and Distribution (Prodisfar) is expected to be able to manage the required data for PE tracking, including data cleaning, validation, and readying for mapping and analysis by Pusjak PDK. Therefore, a PE Tracking Team Decree is needed with clear tasks and functions, including the involvement of other related technical units in MOH and between ministries and agencies. **Meeting to discuss 40 essential medicines expenditure tracking in primary health care on January 24, 2023** Pusjak PDK and Prodisfar discussed sources of information for medicines to track the availability of drugs in primary health care through the "Selena" information system, where 40 essential medicines in primary health care are monitored. MTaPS assisted in the mapping and analysis process, including presenting data needed from the PE tracking database for 2021. Pusjak PDK also asked MTaPS for technical assistance in compiling data for the Minister of Health regarding the use of essential medicines in primary health care, stock outs, and the amount of expenditure for these medicines.
Activity 2.1.4: Build capacity of the HA team to compile PE data	2.1	**Preparatory meeting for PE tracking training on January 9, 2023** MTaPS prepared a draft final report on the implementation of the 2022 PE tracking and has been sent to Pusjak PDK for input before it is finalized. Pusjak PDK and MTaPS agreed to carry out a training on PE tracking from February 21 to 25, 2023, and was to invite the NHA team, Pusjak PDK, Directorate General of Pharmaceuticals and Medical Devices, and Indonesian FDA. This training has been rescheduled for the first week of May 2023.

Activity	MTaPS Objective(s)	Activity Progress
		Meeting updates on the progress of the trastuzumab HTA study and explores the need for capacity building on March 1, 2023 MTaPS and Pusjak PDK prepared the PE tracking training agendas and materials based on the implementation experience of PE activities in 2022. In general, the training agenda includes an overview of the pharmaceutical shopping tracking methodology, PE data collection and management, PE data mapping to 2011 SHA dimensions, data analysis, preparation of policy briefs, and discussions on the institutionalization of PE activities in Indonesia.

H. JORDAN

FIELD SUPPORT ACTIVITIES

OVERVIEW

MTaPS Jordan's 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 USAID's PSS approach.

CUMULATIVE PERFORMANCE TO DATE

Policies and operating procedures related to supply chain management have been developed and/or updated for ministerial review and approval. Clinical protocols for antibiotic prophylaxis and treatment of priority infections have been produced collaboratively, received ministerial approval, and disseminated to all MOH hospitals beyond those participating in MTaPS. AMR awareness is expanding to cover schools across the country while building the capacity of school health focal points to replicate the activity beyond MTaPS.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

The rational use of antibiotic protocols developed by the MOH in two pilot hospitals with support from MTaPS Jordan have received ministerial approval and been disseminated to all MOH hospitals. Certified IPC personnel at the Health Directorate (HD) level are giving PHC IPC training to focal points from health centers in their governorates. AMR awareness raising for school children has been conducted in schools in all 12 governorates, with trained focal points replicating the work in additional schools across the country.

OBJECTIVE 1: STRENGTHEN PHARMACEUTICAL-SECTOR GOVERNANCE

Activity 1.1.1: Provide technical and planning support to the multistakeholder National Vaccines Procurement Modernization Committee (NVPMC)

The committee is no longer being convened by its leadership and is no longer active.

Activity 1.1.2: Provide technical assistance to the GPD in institutionalizing framework agreement procedures

Based on a request from the director of the Government Procurement Department (GPD), MTaPS supported additional training on the implementation of FAs to 42

FA TWG meets at the GPD in Amman, Jordan, January 2, 2023. Photo credit: MTaPS

(10 female; 32 male) procurement personnel from 11 government agencies (e.g., ministries of Agriculture and of Planning and International Cooperation). The GPD led the training. The FA TWG convened four times in Q2 to draft comprehensive SOPs for engaging in and implementing FAs.

The SOPs will standardize practices and optimize collaboration among the public sectors procuring pharmaceuticals and vaccines through the GPD.

Activity 1.1.3: Provide technical assistance to the GPD in developing procurement negotiation procedures

With MTaPS' support, the GPD produced a first draft of the procurement negotiation procedures in Q2 for further development and finalization. Once implemented, this activity will contribute to increasing the likelihood of more affordable medical products for the population without compromising their safety and quality.

Activity 1.2.1: Conduct pharmaceutical procurement training to stakeholders using the MTaPS procurement training curriculum

Only the FA implementation training described in activity 1.1.2 was conducted in Q2.

OBJECTIVE 2: INCREASE THE INSTITUTION'S CAPACITY TO MANAGE PHARMACEUTICALS AND SERVICES, INCLUDING REGULATION OF MEDICAL PRODUCTS

Activity: 2.1.1: Update and/or develop priority PSD policies

As recommended by the MOH Institutional Development and Quality Control Directorate (IDQCD), MTaPS supported the PSD to revise policies and SOPs. MTaPS organized a technical workshop for 13 PSD staff to review and finalize the SOPs. The final documents will be approved by the PSD director for dissemination. One policy pertaining to forecasting of pharmaceutical quantities needed by the MOH will not be finalized with MTaPS' support because WHO will be working on a comprehensive forecasting approach as decided during a coordination meeting with USAID/Jordan, WHO, and the MOH. Once completed, these activities will contribute to sustainable availability of safe, effective, and quality-assured essential medical products for the population.

Activity 2.1.2: Develop a three-year organizational strategic plan for the PSD

Based on the USAID/Jordan, WHO, and MOH coordination meeting described in activity 2.1.1, USAID requested that MTaPS no longer work on developing a three-year organizational strategic plan for the PSD. Instead, MTaPS was requested to provide technical assistance to the PSD to develop an operational plan and an M&E plan for the procurement and supply chain sections of the recently updated MOH strategic plan.

Activity 2.1.3: Support the MOH in strengthening the forecasting of needed pharmaceuticals for annual procurement

Although MTaPS drafted initial quantification policies and procedures with the PSD, as a result of the USAID/Jordan, WHO, and MOH meeting described in activities 2.1.1 and 2.1.2, MTaPS will not continue their development.

OBJECTIVE 3: OPTIMIZE PHARMACEUTICAL-SECTOR FINANCING, RESOURCE ALLOCATION, AND USE

Activity 3.1.1: Develop and implement the "financial management for pharmaceutical procurement" training module

The USAID Public Financial Management and Administration (PFMA) Project in Jordan is working with the government on general public procurement practices. MTaPS reached out to PFMA and engaged one senior administrative PMFA staff member and five senior technical colleagues to attend technical sessions with the FA TWG. Based on discussions with USAID/Jordan, MTaPS and PFMA will continue coordinating activities to avoid duplication in financial management training.

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

Activity 4.1.1: Support the Royal Medical Services (RMS) in implementation of the Comprehensive Antimicrobial Stewardship Program (ASP)

The Jordanian American Physicians (JAP) Association has reviewed the 27 AMS protocols, and its comments are ready for discussion with the RMS AMR central committee pending its official re-formation next quarter. With MTaPS' support, the RMS Quality Department finalized KPIs to measure compliance with protocol implementation. MTaPS oriented the RMS team on the draft audit tool, which is now being used to establish baseline practices for future comparison with protocol implementation.

Activity 4.1.2: Conduct an assessment of RMS information systems relative to ASP activities

As described in activity 4.1.1, the Quality Department is using the protocols, KPIs, and audit tool to establish a baseline description to determine the ability of its EMR and IT systems to capture and aggregate required documentation and produce KPI reports. The Quality Department will use the outcomes of the baseline assessment to evaluate the need for any developments with the IT Department.

Activity 4.1.3: Support the MOH in rationalizing the use of antimicrobials at select health facilities

With MTaPS' support, two MOH hospitals developed antibiotic prophylactic protocols for four priority surgical procedures and one antibiotic management protocol for urinary tract infections. The MOH central pharmacy and therapeutics committee reviewed and approved the protocols. Following the Minister's approval, the MOH disseminated all of the protocols to all MOH hospitals for implementation. With the IDQCD, MTaPS drafted implementation audit tools and outlined KPIs, which have been finalized to develop an institutional policy for their use in all MOH hospitals. MTaPS is ready to provide additional technical support to the MOH in protocol implementation in hospitals and improve clinical care to the population.

Activity 4.2.1: Provide technical and logistic support to the multisectoral Advisory Committee for IPC (ACIPC) in overseeing the implementation of IPC interventions according to the NAP-AMR

A total of 35 (21 female; 14 male) focal points from the MOH and 28 (19 female; 9 male) from the RMS have completed both the didactic and practical portions of the MTaPS-sponsored certified Health Care Infection Preventionist training program. Certified participants are responsible for training other staff in

their hospitals on IPC best practices, surveillance of infection cases, and preventing and controlling infections in hospitals.

Activity 4.2.2: Support the MOH in conducting dental IPC assessments for priority clinical units in health facilities

The MOH requested expanding the assessment beyond MOH facilities to the private sector with the long-term goal of developing comprehensive and dentistry-specific IPC guidelines. MTaPS will discuss this with the MOH in the next quarter.

Activity 4.2.3: Conduct basic IPC training for IPC focal points in MOH PHC

With the IPCD and IDQCD, MTaPS conducted a TOT for 14 IPC focal points (3 male; 11 female) from all 14 Health Affairs Directorates across the country. A total of 68 (53 female; 15 male) personnel were trained by the 14 Health Affairs Directorate IPC focal points in two-day training sessions; these personnel can now sustain such training over time and beyond completion of MTaPS.

Activity 4.3.1: Support the MOH in raising community awareness on AMR and rational use of antibiotics

MTaPS was added to an AMR awareness committee created by the Minister of Health, participated in both technical meetings held by the committee, and provided input toward its strategic plan. The MOH is considering expanding school health activities and linking them with other community awareness activities for adults.

Activity 4.3.2: Continue to support the School Health Directorate (SHD) in raising awareness on AMR among school students

A health educator instructs students from Ajloun Secondary School for Boys on proper handwashing techniques, Jordan, March 6, 2023. Photo credit: MTaPS

MTaPS continued and expanded AMR communication and awareness activities by conducting training in 22 additional schools, totaling 30 schools from all 14 Health Directorates, and reaching more than 2,600 students. MTaPS also conducted TOT for additional health educators, bringing the total to 28 (9 male; 19 female)—two from each of the 14 Health Directorates in the country. The trained health educators

are now capable of replicating the AMR school health activities without additional support from MTaPS. MTaPS is considering developing IEC materials for the health educators to sustain activity implementation beyond the life of MTaPS.

BEST PRACTICES/LESSONS LEARNED

- Strong coordination among donors in-country is extremely important. For the PSD strategic plan, MTaPS had coordinated and planned for this activity with the PSD director, included it in its work plan, and submitted it to the MOH. Concurrently, WHO received significant funding from the EU for a comprehensive program targeting MOH pharmaceutical procurement and supply chain without the knowledge of the PSD director. This resulted in duplication of efforts between donor activities. To avoid this in the future, MTaPS will regularly engage higher administrative levels in the MOH.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity & Description	Date
Complete drafting the FA implementation procedures with the FA TWG and submit for official approval	April–June 2023
Complete drafting the negotiation implementation procedures and submit for official approval	April–June 2023
Finalize the six PSD policies and SOPs and facilitate their submission for official approval	April–June 2023
Develop a PSD operational plan inception report and conduct technical workshops	April–June 2023
Continue technical discussion and coordination with the USAID PFMA activity in Jordan for the financial management training	April–June 2023
Finalize the TOR for the Al-Hussein Hospital RMS AMR central and hospital-based committees	April–June 2023
Conduct technical discussion meetings on the 27 ICU protocols with JAP and the RMS central AMR committee	April–June 2023
Conduct technical discussion on the microbiology polices and antibiograms with JAP and the RMS laboratory team to introduce improvements	April–June 2023
Evaluate the RMS EMR system's ability capture required documentation and aggregate and produce KPI reports	April–June 2023
Obtain USAID decision or approval for expanding the IPC assessment of dental clinics to the private sector	April–June 2023

Table 12. Quarter 2, FY23, Activity Progress, Jordan—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.1.1: Provide technical and planning support to the multistakeholder National Vaccines Procurement Modernization Committee (NVPMC) **Activity Description:** Coordinate technical and planning activities of the NVPMC	1	The committee is no longer being convened by its leadership and is no longer active
Activity 1.1.2: Provide technical assistance to the GPD in institutionalizing framework agreement procedures **Activity Description:** Provide technical and logistical support to the TWG to implement the drafted action plan	1	Developed draft FA SOPs that have been reviewed by the TWG
Activity1.1.3: Provide technical assistance to the GPD in developing procurement negotiation procedures **Activity Description:** Develop procurement negotiation procedures and tools needed for GPD staff	1	Developed draft negotiation SOPs that have been reviewed by the TWG
Activity 1.2.1: Conduct pharmaceutical procurement training to stakeholders using the MTaPS procurement training curriculum **Activity Description:** Build capacities in procurement best practices	1	Trained 42 (10 female; 32 male) procurement personnel from 11 government agencies (e.g., ministries of Agriculture and of Planning and International Cooperation) on FA implementation; the training was led by the GPD
Activity 2.1.1: Update and/or develop priority PSD policies **Activity Description:** Review the developed PSD policies with the IDQCD	2	Finalized six priority policies with the PSD; PSD director will proceed with approvals Forecasting policy will not be developed by MTaPS based on discussion with USAID and WHO
Activity 2.1.2: Develop a three-year organizational strategic plan for the Procurement and Supply Directorate **Activity Description:** Based on MOH request and USAID approval, MTaPS will support the PSD to develop an operational plan for the MOH 2023–2025 strategy	2	This activity will start next quarter
Activity 2.1.3: Support the MOH in strengthening the forecasting of needed pharmaceuticals for annual procurement **Activity Description:** Standardize practices and procedures of quantification, including how to determine data requirements	2	This activity will not continue as a result of the agreement made during the USAID/Jordan, WHO, and MOH meeting
Activity 3.1.1: Develop and implement the "financial management for pharmaceutical procurement" training module **Activity Description:** MTaPS will prioritize training on financial management areas related to procurement and supply chain	3	Based on discussions with USAID/Jordan, MTaPS and PFMA will explore the possibility of collaboration in conducting the financial management training
Activity 4.1.1: Support the Royal Medical Services (RMS) in the implementation of the Comprehensive Antimicrobial Stewardship Program (ASP)	4	The JAP reviewed 27 AMS protocols, and the RMS Quality Department finalized the KPIs

Activity Description: Develop antimicrobial treatment guidelines for Al Hussain RMS Hospital		
Activity 4.1.2: Conduct an assessment of RMS information systems relative to ASP activities **Activity Description:** Assess the ability of the RMS EMR and IT systems to capture and aggregate required documentation and produce KPI reports	4	The RMS Quality Department is establishing a baseline description to determine the ability of its EMR and IT systems to capture and aggregate required documentation and produce KPI reports
Activity 4.1.3: Support the MOH in rationalizing the use of antimicrobials at select health facilities **Activity Description:** Develop the MOH RUA antimicrobials prophylaxis protocols in selected health facilities	4	The MOH disseminated all of the protocols to all MOH hospitals for implementation With the IDQCD, MTaPS drafted implementation audit tools and outlined KPIs to develop an institutional policy for their use in all MOH hospitals
Activity 4.2.1: Provide technical and logistic support to the multisectoral Advisory Committee for IPC (ACIPC) in overseeing the implementation of IPC interventions according to the NAP-AMR **Activity Description:** Provide technical and logistic support for ACIPC regarding the implementation of IPC interventions	4	Completed didactic and practical parts of the health care infection preventionist training
Activity 4.2.2: Support the MOH in conducting dental IPC assessments for priority clinical units in health facilities **Activity Description:** Provide technical support for the ACIPC and related stakeholders, including the Dentistry Directorate, to conduct IPC assessments for priority dental clinical units	4	Finalized the IPC assessment tool for dental clinics
Activity 4.2.3: Conduct basic IPC training for IPC focal points in MOH PHC **Activity Description:** Support standardizing IPC best practices in PHC centers	4	MTaPS conducted a TOT for 14 IPC focal points from all 14 Health Affairs Directorates across the country. A total of 68 personnel were trained by the 14 Health Affairs Directorate IPC focal points in two-day training sessions; these personnel can now sustain such training over time
Activity 4.3.1: Support the MOH in raising awareness on AMR and rational use of antibiotics **Activity Description:** AMR community awareness activities	4	MTaPS participated in two technical meetings related to the AMR awareness committee created by the Minister of Health and provided input toward its strategic plan
Activity 4.3.2: Continue to support the School Health Directorate (SHD) in raising awareness on AMR among school students **Activity Description:** Conduct AMR awareness sessions for school students	4	Implemented the Communication and Awareness Activities for Schools' Students on AMR in 30 schools from 14 health directorates, reaching more than 2,600 students and 30 teachers

I. KENYA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The MTaPS Kenya team is supporting three result areas in the AMR action package: optimizing the use of antimicrobials through AMS, strengthening IPC practices, and strengthening MSC through the NASIC and CASIC One Health platforms. The activities in PY 5 build on the work done in PYs 1–4. MTaPS is focusing its support on the sustainability of AMR containment activities at the national, county, and HCF levels by strengthening the core governance structures for AMR containment at all levels and applying a structured CQI approach with ongoing mentorship. MTaPS will continue to support implementation of activities that have been jointly prioritized by counties and HFs, with a focus on ensuring that sustainable AMR programs are built at HFs to control HAIs, contain AMR, and improve patient safety.

CUMULATIVE PERFORMANCE TO DATE

As of September 2022, MTaPS helped country counterparts in Kenya improve the JEE score by supporting 48% (30/62) of the benchmark actions. In improving the JEE score for MSC/AMR, MTaPS supported 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 40% (2/5) of capacity level 5 actions. MTaPS is supporting these activities at both the national and subnational/county levels in its focus counties. Key activities include strengthening the MSC structures at the NASIC and CASIC levels, developing and disseminating standardized AMR communique and bulletins to One Health stakeholders, and developing the NAP-AMR M&E framework.

To improve the JEE scores for IPC, MTaPS supported 80% (4/5) of capacity level 2 actions, 67% (4/6) of capacity level 3 actions, and 60% (3/5) of capacity level 4 actions. MTaPS focused on strengthening IPC governance structures at the national and county levels, developing and reviewing IPC guidelines in human health, applying IPC assessment tools, training HCWs, and monitoring implementation of IPC and WASH activities using a CQI approach in the focus counties and HCFs. MTaPS IPC activities in Kenya are only within the human health sector.

To improve the JEE scores for AMS, MTaPS supported 75% (3/4) of capacity level 2 actions, 83% (5/6) of capacity level 3 actions, and 14% (1/7) of capacity level 4 actions. MTaPS AMS interventions in Kenya mainly focused on strengthening AMS governance structures at the national level and in the focus counties and HCFs, reviewing the Kenya EML to incorporate the AWaRe categorization of antibiotics, developing and disseminating national AMS guidelines, developing and disseminating regulatory guidance to HCWs and the general public on optimal use of antimicrobials, developing and implementing the AMS curriculum at the preservice and in-service levels, training HCWs on AMS, and monitoring implementation of AMS activities using a CQI approach in the focus counties and HCFs. MTaPS AMS activities in Kenya are only within the human health sector.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

MTaPS, in collaboration with the MOH and other partners, supported the review of the NAP-AMR and its M&E framework, including costing NAP-AMR activities and developing new M&E indicators to monitor implementation of the NAP-AMR 2023–2027. This contributes to the country's progress toward achieving the following 2019 WHO Benchmarks for IHR Capacities actions: identification and mapping of sustained funding for planned activities in the NAP-AMR (capacity level 4) and ensuring regular monitoring of progress with data submitted to regional and global levels (capacity level 5).

Additionally, with the Nyeri CASIC, MTaPS held an end-term workshop to review the implementation of the 2022–2023 action plan, set priorities for the next CASIC action plan, and set up TWGs to address the six strategic objectives. With MTaPS' support, AMS mentorship and supportive supervision visits were conducted in 21 MTaPS focus facilities across the four MTaPS focus counties of Kisumu, Kilifi, Nyeri, and Murang'a.

MTaPS, in collaboration with the MOH's Division of Patient and Health Worker Safety (DPHWS) and the Nyeri and Kisumu county governments, supported the ongoing pilot of the implementation of the reporting system and tools for the national IPC M&E framework (2022). In addition, with support from MTaPS, the National Infection Prevention and Control Advisory Committee (NIPCAC) conducted its quarterly meeting. MTaPS and the Kisumu, Kilifi, Nyeri, and Murang`a county governments conducted county engagements and facility IPC support supervision and mentorship focusing on governance and implementation status and monitoring of IPC CQI action plans at the county and facility levels. The engagement included consultative meetings with the County Health Management Teams (CHMTs) and quarterly review meetings with CIPCACs, facility management, and facility IPC committees.

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Continue strengthening NASIC for coordination, policy direction, review, and M&E of the national AMR plan and help to move towards sustainable capacity

MTaPS provided financial and technical assistance for three NASIC Secretariat-led workshops to complete the review of the NAP-AMR and the M&E framework 2023–2027. Workshops were held in Naivasha February 27–March 3, 2023 (in collaboration with the FAO); Nairobi March 8–9, 2023; and Machakos March 15–17, 2023. The workshops saw the development of NAP-AMR 2023–2027 objectives and activities, costing of NAP-AMR activities using the WHO costing tool, and development of M&E indicators in alignment with the NAP-AMR 2023–2027. MTaPS supported Nyeri County in conducting its end-term CASIC action plan review with a multisectoral approach January 11–12, 2023. The workshop reviewed factors that influenced the implementation of the county's first CASIC plan, conducted an end-term review of the implementation of the activities within the 2020–2022 CASIC plan, developed priority areas for the 2023–2025 action plan, and formed six TWGs aligned to the six strategic objectives. Additionally, MTaPS provided TA in the compilation of the AMR newsletter by consolidating reports on activities during WAAW in November 2022, to provide information on AMR to key stakeholders.

RESULT AREA 2: IPC

Activity 2.1.1: Continue strengthening governance for IPC at national, county, and facility levels

MTaPS conducted collaborative and planning meetings with the MOH DPHWS, Division of OSH and Division of HCWM focused on reviewing activities undertaken within the quarter; planning for upcoming activities; developing patient safety training modules; and reviewing draft documents (i.e., national IPC and HCWM guidelines). In collaboration with the MOH DPHWS and Kisumu and Nyeri country governments, MTaPS supported the ongoing pilot of the IPC M&E framework by monitoring reports from the national dashboard in the Kenya Health Information Systems (KHIS). MTaPS facilitated a data review meeting in Kisumu County January 18–19, 2023, to gain insight on the implementation of the IPC M&E system, which involved 34 stakeholders from 7 of the 8 MTaPS focus facilities. Following this, onsite monitoring of utilization of the reporting tools and provision of mentorship was conducted in 16 MTaPS focus facilities (8 in Kisumu County and 8 in Nyeri County). This resulted in the stakeholders identifying lessons learned from the implementation and proposing areas for review and amendments to the reporting framework and the tools.

MTaPS supported the NIPCAC to conduct a virtual quarterly meeting engaging 19 NIPCAC members and other stakeholders (10 female; 9 male) from different organizations. The meeting discussed progress in the implementation of the IPC strategic plan, implementation of the IPC M&E framework, reports from implementing partners, and activities for the coming quarter. At the county level, MTaPS and the County Health Departments supported CIPCAC quarterly meetings in Nyeri January 13, 2023 (22 participants [10 male; 12 female]); Kisumu January 20, 2023 (10 participants [5 male; 5 female]); and Murang'a February 23, 2023 (15 participants [11 male; 4 female]) to review implementation of the CIPCAC work plans. In addition, MTaPS facilitated consultative meetings with the CHMTs of the four MTaPS focus counties.

Activity 2.2.1: Strengthen and scale up health care human resource capacity for IPC through pre-service, in-service, and continuing professional development trainings

MTaPS, in collaboration with the National Nurses Association of Kenya (NNAK), conducted a virtual webinar February 22, 2023, for 167 participants (96 female; 71 male). It covered OSH worker reporting and compensation, and participants were awarded CPD points. This contributes to increasing the pool of trained HCWs.

Activity 2.5.1: Continue support to county, sub-county, and facility-level IPC, OSH, and WASH activities for sustainable capacity

MTaPS, in collaboration with the Murang`a, Kisumu, Nyeri, and Kilifi county governments and CHMTs, conducted facility IPC supportive supervision and mentorship in 21 facilities (2 in Murang'a, 8 in Kisumu, 8 in Nyeri, and 3 in Kilifi). The visits involved meeting with facility IPC committees, reviewing their IPC CQI action plans and activities, and providing mentorship and on-the-job training on IPC best practices. MTaPS provided technical support to the four focus counties in scientific writing of best practices, lesson learned, and operational research by health care providers at the facilities. To date, six IPC abstracts have been reviewed and are ready for submission, and MTaPS continued with the distribution of 11 OSH abstracts in Nyeri, Kisumu, and Murang`a counties. This motivates HCWs to continue with IPC and WASH implementation and to learn from their peers.

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

Activity 3.1.1: Continue to strengthen AMS governance structures at national and county level for sustainable capacity

MTaPS facilitated MTC/AMS training in Nyeri County and targeted committee members from the MTaPS focus facilities and key Nyeri CHMT officers. The aim was to train new MTC members to provide leadership and mentorship in implementation of the AMS CQI action plan in their facilities. Thirty-two participants (17 female; 15 male) attended, including representatives from two non-MTaPS hospitals (Consolata Mathari and Mwai Kibaki KNH Othaya), with the aim of increasing collaboration, particularly with diagnostic stewardship. The participating facilities shared their experiences with implementing MTC/AMS CQI action plans and were supported with the development of their 2023 action plans.

Activity 3.1.2: Continue to strengthen institutionalization of AWaRe categorization of antibiotics

MTaPS finalized the first KNMF, whose launch is planned for next quarter. MTaPS supported the start of the review of the 2019 Kenya EML. This included two Kenya EML review planning meetings January 26 and February 3, 2023, to define a scope of work, develop a road map for the review, and agree on timelines. A Kenya EML induction workshop involving the MOH Department of Health Products and Technologies and the Kenya EML review TWG was held in Naivasha February 21–23, 2023.

Activity 3.2.1: Continue to strengthen and scale up health care human resource capacity for AMS through pre- and in-service trainings

MTaPS, in collaboration with the NNAK, facilitated an AMS sensitization on the role of nurses in AMS March 8, 2023. The webinar, attended by 265 participants (113 male; 152 female) from Kenya and other countries, helped in sharing of AMS experiences within Kenya and with other countries.

Activity 3.5.1: Continue support to county, sub-county, and facility-level AMS activities for sustainable capacity

In collaboration with Kisumu, Kilifi, Nyeri and Murang'a counties, MTaPS provided onsite TA and mentorship during quarterly AMS supportive supervision visits in January and February 2023. The visits aimed to monitor the implementation of AMS CQI action plans, offer mentorship, and assess utilization of M&E tools for reporting outpatient antimicrobial prescribing indicators. Twenty health facilities were supervised (seven in Kisumu, three in Kilifi, eight in Nyeri, and two in Murang'a). The results showed that all facilities had active MTC/AMS committees. They reported key AMS interventions, including ongoing AMS ward rounds at Jaramogi Oginga Odinga Teaching & Referral Hospital in Kisumu and antimicrobial restriction in several facilities, including Kilifi CRH and Malindi SCH in Kilifi and Nyeri CRH, Karatina SCH, Mukurwe-ini SCH, Outspan Hospital, and Mt. Kenya SCH in Nyeri. Other AMS interventions found were AWaRe categorization in Maragua SCH in Murang'a and development of a formulary list in Murang'a CRH. The team supported the AMS teams in Kilifi CRH, Mariakani SCH, and Nyeri CRH with the review of AMS-related abstracts for submission to the annual conferences of the Pharmaceutical Society of Kenya (PSK) and IPNET-Kenya, both scheduled for next quarter. This will promote sharing of AMS approaches and knowledge with HCW peers.

BEST PRACTICES/LESSONS LEARNED

- Continued collaboration with private-sector health professional associations in implementing re-licensure-linked CPD courses is a sustainable path to building capacity of all health care providers in the public, private, and faith-based sectors.
- Using a multipronged approach to building human resource capacity in MTaPS focus counties and facilities has empowered HCWs identified as champions to implement county/facility CQI action plans. In addition, several champions have written and submitted abstracts to upcoming conferences with high acceptance rates.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Continue strengthening NASIC for coordination, policy direction, review, and M&E of national AMR plan and help to move towards sustainable capacity ▪ Support development of next iteration of the Nyeri CASIC work plan; launch of Kisumu CASIC work plan ▪ Launch of NAP-AMR and M&E framework 2023–2027 ▪ Finalize compilation and support dissemination of the 2023 AMR bulletin	April–June 2023
Activity 2.1.1: Continue strengthening governance for IPC at the national, county, and facility levels ▪ Feedback and review meeting on findings from the phase one implementation of the IPC M&E framework ▪ Finalize the revised IPC guidelines and support dissemination to HCWs ▪ Review training package on HAIs ▪ Develop a mobile application for AMR/IPC documents and selected IPC-related SOPs	April–June 2023
Activity 2.2.1: Strengthen and scale up health care human resource capacity for IPC through preservice, in-service and CPD trainings ▪ Capacity building of HCWs on IPC focusing on emerging and re-emerging infections and HCW safety	April–June 2023
Activity 2.5.1: Continue support to county, sub-county, and facility-level IPC, OSH, and WASH activities ▪ Review abstracts from counties and HFs highlighting best practices and lessons learned ▪ Quarterly supportive supervision and IPC performance review meetings for the 21 focus HCFs ▪ Sensitization of surgical teams on surgical prophylaxis in the four counties	April–June 2023
Activity 3.1.1: Continue to strengthen AMS governance structures for sustainable capacity ▪ Support the digitalization of the AMC surveillance tools and roll out within the MTaPS focus counties ▪ Support the development/review of good prescribing standards policy/guidelines ▪ Support the development of a PPS training package	April–June 2023
Activity 3.1.2: Continue to strengthen institutionalization of AWaRe categorization of antibiotics ▪ Roll out practical guides for AWaRe implementation in MTaPS focus counties ▪ Support the finalization of the review of the Kenya EML incorporating the AWaRe categorization	April–June 2023
Activity 3.2.1: Continue to strengthen and scale up health care human resource capacity for AMS through pre- and in-service trainings ▪ Conduct quarterly AMS CPD training sessions with professional associations	April–June 2023
Activity 3.5.1: Continue support to county, sub-county, and facility-level AMS activities for sustainable capacity ▪ Conduct quarterly supportive supervision visits in the four focus MTaPS counties ▪ Develop selected AMS-related SOPs	April–June 2023

Table 13. Quarter 2, FY23, Activity Progress, Kenya—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)
Activity 1.1.1: Continue strengthening NASIC for coordination, policy direction, review, and M&E of the national AMR plan and help to move towards sustainable capacity **Activity Description:** Support the NASIC in implementing the NAP-AMR M&E framework; review progress with the NAP-AMR 2023–2027 as a prelude to the review of the next NAP; support CASICs in four focus counties	5.4	1.1	▪ Provided technical and financial assistance to the NASIC in reviewing the NAP-AMR and M&E framework 2023–2027 ▪ Supported the costing of NAP-AMR activities in collaboration with WHO ▪ Supported the Nyeri CASIC in an end-term review of its CASIC work plan 2020–2022 with 33 CASIC members (15 female; 18 male) from three departments (Agriculture, Livestock Development and Blue Economy; Environment; Health) and a representative from the USAID IDDS program
Activity 2.1.1: Continue strengthening governance bodies for IPC at the national, county, and facility levels **Activity Description:** Support the MOH in implementing the national IPC M&E framework; developing and reviewing SOPs; meeting with the national IPC TWG, NIPCAC, and CIPCAC; and monitoring implementation of HCF action plans and IPC CQI	5.4	2.1	▪ Conducted onsite M&E implementation monitoring in all 16 pilot focus facilities in Nyeri and Kisumu counties and a two-day M&E data review meeting of the IPC M&E framework in Kisumu County (34 participants [15 male; 19 female]) ▪ Supported the NIPCAC with conducting its quarterly meeting ▪ Supported quarterly CIPCAC meetings in Nyeri, Kisumu, and Murang'a ▪ Facilitated consultative meetings with the CHMTs of the four MTaPS focus counties
Activity 2.2.1: Strengthen and scale up health care human resource capacity for IPC through pre-service, in-service, and CPD trainings **Activity Description:** Continue to roll out the IPC CPD course in collaboration with health professional associations; collaborate with national MOH IPC team to introduce the IPC agenda/courses for in-service training	5.4		▪ In collaboration with the NNAK, conducted a virtual webinar on OSH worker reporting and compensation for 167 HCWs (96 female; 71 male) ▪ Provided TA to the NNAK to develop its first newsletter/journal to provide a platform to its members to communicate best practices and share scientific knowledge and health updates
Activity 2.5.1: Continue support to county, sub-county, and facility-level IPC, OSH, and WASH activities for sustainable capacity **Activity Description:** Support county and HCF 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	5.4	2.5	▪ Conducted quarterly IPC supportive supervision in all 21 IPC MTaPS focus facilities (2 in Murang'a, 8 in Kisumu, 8 in Nyeri, and 3 in Kilifi) ▪ Provided technical support to focus facilities in Nyeri, Kisumu, and Kilifi with writing abstracts ▪ Distributed OSH abstracts to 11 HFs in Nyeri, Kisumu, and Murang'a counties
Activity 3.1.1: Strengthening AMS governance structures at national and county level **Activity Description:** Support the PPB in finalizing and utilizing the AMS surveillance tool, provide TA to county and facility AMS focal persons in four MTaPS focus counties, and support development/review and use of national outpatient prescription and impatient treatment review sheets	5.4	3.1	▪ Held MTC/AMS training in Nyeri County targeting the eight focus facilities and two non-MTaPS sites (Consolata Mathari and Mwai Kibaki KNH Othaya) for 21 participants (15 female; 16 male) ▪ Conducted a mid-term AMS assessment in Kilifi CRH and Malindi SCH and a baseline AMS assessment in Mariakani SCH

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)
Activity 3.1.2: Continue to strengthen institutionalization of AWaRe categorization of antibiotics **Activity Description:** Support revision of 2019 Kenya EML; development and implementation of SOPs, tools, and job aids; and dissemination of practical guide for AWaRe in four focus counties	5.4	3.1	▪ Finalized KNMF ▪ Initiated review of 2019 Kenya EML, which included two review planning meetings on January 26 and February 3, 2023, and a Kenya EML induction workshop in Naivasha February 21–23, 2023, with 27 participants (10 male; 17 female)
Activity 3.2.1: Continue to strengthen and scale up health care human resource capacity for AMS through pre- and in-service trainings **Activity Description:** Support the PPB in incorporating AMR and AMS in core preservice curricula for pharmacy training programs. Ongoing provision of AMS CPD curriculum in collaboration with professional bodies. Support development of a PPS training package. Scale up patient-focused AMS interventions.	5.4	3.2	▪ Collaborated with the NNAK to facilitate an AMS sensitization on the role of nurses in AMS March 8, 2023, for 265 (113 male; 152 female) participants from Kenya and other countries
Activity 3.5.1: Continue support to county, sub-county, and facility-level AMS activities for sustainable capacity **Activity description:** Support implementation for patient-focused AMS interventions in the 22 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	5.4	3.5	▪ Conducted quarterly AMS supportive supervision and mentorship in 20 AMS MTaPS focus health facilities (7 in Kisumu, 3 in Kilifi, 8 in Nyeri, and 2 in Murang'a) in Kisumu January 16–20, 2023; Kilifi January 31–February 2, 2023; Nyeri February 13–17, 2023; and Murang'a February 21–22, 2023 ▪ Reviewed abstracts from the AMS teams in Gertrude's Children's Hospital, Kilifi CRH, Mariakani SCH, and Nyeri CRH that will be submitted to the IPNET-Kenya and PSK conferences

J. MALI

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

MTaPS Mali's strategy is to base the program implementation on guidance from the WHO benchmarks for IHR capacities while relying on other published best practices; to collaborate with the appropriate 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

During FY19–FY23 Q1, MTaPS worked with the GCMN-RAM to develop TORs for the group as well as for its IPC and AMS TWGs. The GCMN-RAM committed to meeting quarterly, while the IPC and AMS TWGs planned to meet monthly. With MTaPS' support, the GCMN-RAM has been able to organize 7 coordination meetings out of the 12 initially planned to monitor progress on implementing the NAP-AMR. Additionally, MTaPS supported the IPC and AMS TWGs to organize their respective meetings. So far, the IPC TWG has organized seven meetings. The IPCAT2 tool has been used once per year since 2020 to evaluate IPC core components at the national level. IPCAT2 results in 2022 showed that two components improved since 2021, and Mali had a score of greater than or equal to 50% on four of the six IPC components assessed at the national level. The AMS TWG also organized three meetings. During 2021, the AMS TWG evaluated AMS core components at the national level using the WHO checklist of essential national core elements for AMS programs in LMICs. One AMS core component (regulations and guidelines) had a score of 50%, while the other three components (national plan and strategy; awareness, training, and education; and supporting technology and data) each had a score of at least 75%.

MTaPS supported the DGSHP and DPM (which are involved in the GCMN-RAM) to establish DTCs and IPC committees in 16 MTaPS-supported health facilities. Following their establishment, the committees developed action plans for continued improvement of IPC and AMS practices. MTaPS assisted the GCMN-RAM and DGSHP to organize four virtual meetings to monitor the implementation of IPC activities in the 16 facilities' action plans. Additionally, MTaPS supported three supervision visits to the HFs. MTaPS supported DPM and the National Agency for the Accreditation and Evaluation of Health Facilities (ANAES) in organizing six virtual meetings and in conducting one DTC supervision visit to each of the 16 HFs. MTaPS supported the National Institute of Public Health, DGSHP, and DPM to develop major national AMR-related documents, including the 2023–2027 NAP-AMR, 2021–2025 AMS action plan, and 2023–2027 IPC strategic plan.

Additionally, MTaPS supported the development and implementation of e-Learning courses on IPC and AMS in Mali; MTaPS-supported e-Learning platforms are now installed and operational at both the DGSHP and the Faculty of Medicine and Odontostomatology (FMOS).

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

MTaPS-supported activities permitted the country to continue increasing the percentage of WHO IHR benchmark actions completed for the MSC and AMS components.

SUPPORT TO THE COUNTRY'S PROGRESS TOWARD THESE BENCHMARK ACTIONS INCLUDED THE FOLLOWING:

- MTaPS supported the revision of the NAP-AMR (which is being implemented) and the monitoring of antimicrobial use at health facilities (including virtual meetings with DTCs and site visits to facilities).
- WHO supported the monitoring of antimicrobial use and consumption.

RESULT AREA 1: EFFECTIVE MSC-AMR

Activity 1.1.1. Provide technical and operational support to the GCMN-RAM and its two sub-committees (IPC and AMS)

MTaPS supported the GCMN-RAM to organize an IPC TWG meeting to carry out an annual evaluation with the IPCAT2 tool. The objectives of this meeting were:

- Assess IPC implementation at the national level with the WHO IPCAT2 tool.
- Share the results of the internal assessment and the JEE.3 tool.
- Discuss next steps and the sustainability of the MTaPS project's IPC achievements.

IPCAT2 results in 2023 showed that two components have improved since 2022, and Mali had a score of greater than or equal to 50% on four of the six IPC components assessed at the national level. The average score increased from 50% (2022) to 54% (2023).

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

Activity 3.5.1: Support DPM in developing and disseminating DTC training toolkit (FY4 activity)

In February and March 2023, MTaPS supported the DPM to disseminate the DTC toolkit and infectious disease standard treatment guidelines in the Kayes, Koulikoro, Bamako, Sikasso, and Segou regions. The toolkit addresses the needs of different types of facilities, including hospital settings, clinics, and dispensaries, with regard to the establishment and training of the DTCs to monitor AMS practices at health facilities. It allows training on optimizing antimicrobial use to be standardized for the installation of DTCs across the country.

MTaPS supported the DPM to print a total of 1,520 guidelines and distribute them to health care workers. During this activity, participants were presented with and discussed the facilitator guide, participant manual, infectious diseases treatment guidelines, and AMS e-Learning platform developed with MTaPS' support.


Dissemination of toolkit in Sikasso, Mali (left). Dissemination of toolkit in Bamako, Mali (right).
Photo credit: Ousmane Traoré, MTaPS

Activity 3.5.2: Support the GCMN-RAM, ANAES, and DPM in monitoring implementation of AMS practices at 16 health facilities

During this quarter, MTaPS supported monitoring of the implementation of AMS practices at 16 supported health facilities through onsite coaching visits and remotely. MTaPS supported the DTCs at Bamako Dermatological Hospital, Mali Academic Hospital, Mère-Enfant Hospital "le Luxembourg," Gabriel Touré Hospital, Mali Gavardo Hospital, and Hospital of Kayes to update their respective AMS action plans, strengthen their ownership of AMS data collection tools, refresh new members on the WHO AWaRe categorization, and promote the use of the AMS e-Learning courses developed with MTaPS' support. Monitoring showed an increase in the percentage of facilities implementing AMS improvement plans (in line with MTaPS indicator AS2: measure the number and percentage of health facilities' MTC/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework in the reporting period) and the percentage of facilities implementing continuous quality improvement (CQI) (in line with MTaPS indicator AS4: measure the number and percentage of MTaPS-supported health facilities implementing CQI to improve AMS in the reporting period). Both indicators increased from 81% (FY5Q1) to 88% (FY5Q2).

RESULT AREA 2: IPC

Activity 2.1.1: Support the IPC TWG to disseminate the national IPC strategic plan for the human health sector

In February 2023, MTaPS supported the DGSHP to secure the official political adoption of the national IPC strategic plan by getting its preface signed by Mali's Minister of Health and Social Development. After meeting with the DGSHP team to plan activities to support the political adoption of the IPC strategic plan, MTaPS printed three copies of the IPC strategic plan and sent them to the DGSHP. MTaPS also developed a brief summary of the national IPC strategic plan, which was finalized by both DGSHP and MTaPS. The DGSHP then sent this summary to the MOH, where it was signed by the Minister and thus officially adopted by the MOH.

Activity 2.5.2: Strengthen capacity of three local training institutions to manage e-Learning on IPC and AMS for both pre- and in-service health care workers

In March, MTaPS supported FMOS to organize an orientation on MTaPS-developed e-Learning courses (IPC, IPC/COVID-19, and AMS). Orientation workshops were organized in each hospital (Point G Hospital, Mère-Enfant Hospital "le Luxembourg," Gabriel Touré Hospital, Bamako Dermatological

Hospital, Hospital of Mali, Mali Gavardo Hospital, and Kati Hospital) in Bamako and Koulikoro (five hospitals from the public sector and two from the private sector). A total of 131 health workers (physicians, pharmacists, biologists, medical assistants, midwives, nurses, administrators, and social service workers), including 54 women (41%), from the seven hospitals attended these workshops. In addition to giving a demonstration of the e-Learning platform, the two orientation facilitators presented on two general topics: IPC issues and interests for caregivers; and HAI and AMR.

MTaPS supported the two facilitators from FMOS to register participants on the e-Learning platform.

The objective of this orientation was to encourage more people to take and complete the course. To date:

- 347 people registered on the DGSHP and FMOS e-Learning platforms; 239 registered for the IPC course, 85 for the IPC/COVID-19 course, and 23 for the AMS course.
- 44 people have obtained certificates of course completion; 35 standard IPC certificates and 9 IPC/COVID-19 certificates have been issued.

BEST PRACTICES/LESSONS LEARNED

- Strong involvement of FMOS in training on IPC and AMS can increase participation and ownership of the students and medical professionals.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Provide technical and operational support to the National Multi-Sectoral AMR Coordination Working Group (or GCMN-RAM) and its two TWGs (IPC and AMS)	April 2023
Activity 2.1.1: Support the IPC TWG to disseminate the national IPC strategic plan for the human health sector	April 2023
Activity 2.5.1: Support the IPC TWG and DGSHP in monitoring implementation of IPC practices at health facilities	May 2023
Activity 2.5.2: Strengthen capacity of three local training institutions to manage e-Learning on IPC and AMS for both pre- and in-service health care workers	April–June 2023
Activity 3.5.1: Support the DPM to develop and disseminate IEC materials on AMS	May– June 2023
Activity 3.5.2: Support the GCMN-RAM, ANAES, and DPM in monitoring implementation of AMS practices at health facilities	April 2023

Table 14. Quarter 2, FY23, 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 two sub-committees (IPC and AMS)	5	5.4	MTaPS Mali supported the GCMN-RAM to hold two TWG meetings: ▪ The AMS TWG quarterly meeting on January 31, 2023, with the participation of four sectors (human health, animal health, environment, and agriculture) under the leadership of the DPM. ▪ The IPC TWG quarterly meeting on March 23, 2023, with the participation of four sectors (human health, animal health, environment, and agriculture) under the leadership of the DGSHP.
Activity 2.1.1: Support the IPC TWG to disseminate the national IPC strategic plan for the human health sector	5	5.4	MTaPS supported the printing of 500 copies of the national IPC strategic plan.
Activity 2.5.2: Strengthen capacity of three local training institutions to manage e-Learning on IPC and AMS for both pre- and in-service health care workers	5	5.4	MTaPS continued to support FMOS/Faculté de Pharmacie (FAPH) and DGSHP to manage e-Learning on IPC and AMS through the following activities: ▪ Routinely reminding participants at MTaPS-supported meetings and events about the e-Learning courses and sharing the link with them to access the courses. ▪ Following up with the DGSHP, FMOS, and FAPH for data on the enrollment in and use of their e-Learning platforms. ▪ Orientation of 131 health workers (59% male, 41% female) on how to use e-Learning platform.
Activity 3.5.2: Support the GCMN-RAM, ANAES, and DPM in monitoring implementation of AMS practices at health facilities	5	5.4	MTaPS supported the DTCs at Bamako Dermatological Hospital, Hospital of Mali, Mère-Enfant Hospital "le Luxembourg," Gabriel Touré Hospital, Mali Gavardo Hospital, and Hospital of Kayes to update their respective AMS action plans, strengthen their ownership of AMS data collection tools, educate/refresh new members on the WHO AWaRe categorization, and promote the use of the AMS e-Learning courses.

MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

OVERVIEW

MTaPS Mali's MNCH goal 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 link patients and products. These areas are directly aligned with the first and third global objectives of MTaPS.

CUMULATIVE PERFORMANCE TO DATE

From December 2021 to April 2022, MTaPS supported the DPM to conduct a three-day training session focused on building the capacity of the data entry team to use the PRO-E-MED data entry tool, which is the DPM's electronic platform for medicines registration. Overall, 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 dossiers, 1,162 were for registration renewals.

In May 2022 and September 2022, MTaPS helped the DPM organize two sessions of the national market authorization commission (CNAMM) in Mali, during which 786 dossiers (including 103 for MNCH products) were examined. As such, MTaPS supported a total of two meetings of the CNAMM in FY22. After the update of the Directory of Registered Medicines and Medical Products in Mali (May 2022 edition), 3,606 different medicines, listed by form, dosage, and presentation, had valid registrations in Mali.

Additionally, from October to December 2022, MTaPS supported the DPM to set up and operationalize an official website.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

Activity 5.2.8: Support DPM to evaluate the use of medicines within the NEML in health facilities.

MTaPS supported the DPM to evaluate the use of medicines within the NEML in 68 health facilities (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) through the following activities:

- Development of the protocol for the evaluation of the use of the NEML, including methodology and sampling
- Elaboration of data collection tools
- Training of enumerators and piloting of data collection tools
- Data collection in the field

- Data review

Data analysis is ongoing, and MTaPS will share the findings and recommendations from the evaluation once it is completed.

BEST PRACTICES/LESSONS LEARNED

- Dissemination of the NEML is crucial for improving prescription practices. The low level of dissemination of the list to health workers in select facilities in Mali is associated with noncompliance of prescriptions with the NEML. Overall, 93% of health workers assessed do not use the NEML to prescribe; among that 93%, only 3% have received a copy of the NEML.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 3.1.6.2: Assist the DPM to set up an operational website (FY4 activity) ▪ MTaPS will support the DPM to organize a website launch ceremony.	April 2023
Activity 5.2.8: Support DPM to evaluate the use of medicines within the NEML in health facilities ▪ MTaPS will support the DPM to complete data analysis from the evaluation of the procurement and use of medicines within the NEML by health service providers.	April 2023
Activity 5.4.6: Support the DPM to build the capacity of health practitioners on infectious disease treatment guidelines and appropriate prescribing ▪ Development of a training module on the infectious disease treatment guidelines ▪ Training session for health care practitioners	May–June 2023

Table 15. Quarter 2, FY23, Activity Progress, Mali—MNCH

Activity	MTaPS Objective(s)	MNCH Result(s)	Activity Progress
Activity: 3.1.6.2: Assist the DPM to set up an operational website (FY4 activity)	3.1	3.1	After website design, MTaPS supported the finalization of the website. This entailed developing the website maintenance strategy, developing an action plan for the finalization of the site, and integrating the content of certain menus.
Activity: 5.2.8 Support DPM to evaluate the use of medicines within the NEML in health facilities	5.2	5.2	MTaPS supported the DPM to evaluate the use of medicines within the NEML in health facilities. After data collection on the field, the next steps of this activity are data analysis and elaboration of the technical report.

K. MOZAMBIQUE

FIELD SUPPORT ACTIVITIES

OVERVIEW

The overall goal of MTaPS is to help Mozambique strengthen its pharmaceutical regulatory system to ensure equitable, sustainable access to safe, effective, quality-assured, and affordable essential medicines and medicine-related pharmaceutical services. This includes establishing an effective medical products vigilance system at ANARME, IP that supports the detection, assessment, understanding, and prevention of AEs any 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 ANARME, IP's leadership is a high priority for Mozambique's pharmaceutical sector. MTaPS is working with ANARME, IP and other stakeholders to strengthen the regulatory system to provide safe and effective antiretroviral and other related medicines, promote the rational use of antimicrobials, and increase accountability and transparency. This includes strengthening the active PV system and updating the PV management information system by implementing the electronic PViMS tool. The HIV and TB programs need an active PV system that enables systematic monitoring of AEs for TPT regimens. MTaPS is supporting ANARME, IP, the national HIV program, and the national tuberculosis program (NTP) to implement the ongoing active safety surveillance for patients on TPT.

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. ANARME, IP and the national HIV program, with support from MTaPS, trained 292 health care workers (204 male, 88 female), along with 18 participants from the central level, on the protocol, SOPs, and proper data collection. Following the training, 9 of the 10 selected HFs in April 2020 began enrolling into the study cohort both treatment-naïve HIV/TB co-infected patients and patients who transitioned from nevirapine-based regimens to TLD. The 10th facility was used as a COVID-19 treatment center, so it did not enroll patients.

In PY3, further support included patient enrollment and follow-up as well as quarterly on-site and virtual supervision by ANARME, IP and the HIV program to the nine study sites. This supervision served to continuously mentor and support the site HCWs to implement the protocol, identify challenges, develop action plans to address gaps, and undertake corrective actions. In addition, MTaPS, in collaboration with ANARME, IP, generated quarterly progress updates on the number of enrolled patients, number of follow-up visits, AEs reported, findings of supervision visits, strengths, and challenges in the implementation of the program, and recommendations for alleviating those challenges. 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 supported ANARME, IP in data cleaning to improve the quality of the data collected during the patient follow-up visits. Their unique patient records were entered into PViMS. MTaPS helped ANARME, IP organize a virtual review meeting with all site teams to present the progress

report, with a focus on enrolled patient follow-up. During Q2 of PY4, MTaPS supported ANARME, IP to physically visit the study sites and offer guidance on closing the active surveillance activity and submitting all study materials (tablets; filled data collection forms A, B, and C; and informed consent forms) to ANARME, IP at the central level for final storage and analysis. MTaPS supported capacity building on causality assessment for nine (four male, five female) ANARME, IP internal staff, which also provided a practical session on using PViMS to conduct causality assessments. Data analysis for the TLD implementation was initiated.

In Mozambique, the use of a once-weekly dose of isonaizid-rifapentine for 12 weeks (3HP) for TPT is being implemented, in addition to the continued use of a once-a-day dose of isoniazid (INH) for 6 months' preventive treatment. 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, standard operating procedures, and training materials that were approved by the National Bioethics Committee on Health, with further approval from the CDC in PY4 Q2 (March 2022).

Five health facilities (four health centers and one hospital) in two provinces (Gaza and Maputo City) were selected as study sites. During PY4, MTaPS also periodically engaged with certain stakeholders, including ANARME, IP, the NTP, USAID Mission, the CDC and its implementing partners *Centro de Colaboração em Saúde* (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.

In April 2022, a training of trainers was conducted for 10 central-level focal persons (4 female, 6 male) from ANARME, IP and staff from CCS and EGPAF. In July 2022, MTaPS supported ANARME, IP to train provincial and district focal persons on the TPT protocol, SOP, and data collection forms, followed by cascade training to the health facility HIV, PV, and TB focal persons from the five study sites. Patient enrollment was initiated in August 2022. The PViMS tool was updated with TPT data collection forms. A coordination meeting was conducted with ANARME, IP, the national HIV program, CCS, and EGPAF focal persons to discuss implementation status and challenges, develop action plans to overcome those challenges, and plan for onsite supervisory visits to the five sites and the training of health care workers on the use of PViMS tool.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

MTaPS supported ANARME, IP and the TB and HIV programs to continue enrollment and follow-up of the enrolled HIV patients at the five selected study sites. So far, a total of 298 patients have been enrolled, with 367 follow-up visit forms filled in during routine HIV care and treatment based on manually recorded data. A total of 26 AEs, all mild, have been reported.

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

Activity 3.1.1: Provide technical assistance to implement an active PV program for safety monitoring of TPT scale-up in Mozambique (activity continuing from FY22)

During the quarter, ANARME, IP, with support from MTaPS, trained staff from the Maputo City sites on the usage of PViMS for data collection. The seven training participants (four female, three male) included the provincial PV focal person and staff from the three Maputo City study sites of Xipamanine, Albasine, and 1 de Junho, as well as a data clerk from CDC implementing partner CCS who is based in the Xipamanine HF. For the Maputo City sites, the training was completed with supervision. The three Maputo City sites were able to start data entry into PViMS. As training for the two Gaza sites was completed during the previous quarter, teams at all five sites are now trained in the use of PViMS to capture patient data.

MTaPS coordinated with the CDC implementing partners to plan in-person supportive supervision site visits and the five sites, with CCS participating in the Maputo City supervisory visits. MTaPS coordinated with CCS to support ANARME, IP to conduct the first round of supportive site visits in February and March for the three Maputo City sites of Albasine, Xipamanine, and 1 de Junho. The supervision team consisted of staff from ANARME, IP, MTaPS, and CCS, as well as the provincial PV focal person. ANARME, IP in March undertook a second round of supportive supervision to the two Gaza Province study sites of Xilembene and Mandlakazi, with support from the provincial focal persons, to follow up on the progress of active surveillance implementation and support the site teams in overcoming identified challenges.

One reported challenge was that at almost all the sites, the focal persons who were initially trained had been transferred out of the implementing facilities, and new staff were unaware of how to undertake TPT active surveillance. This required the supervision team to explain the protocol to the site team again; train the new staff on patient enrollment, the data collection forms, and SOPs; and show them how to fill out the data collection forms and follow up on enrolled patients.

Other identified challenges were low patient enrollment in and follow-up on the 3HP regimen; high site team workload from routine HIV care and treatment work, which resulted in low motivation to fill in the additional TPT study data collection forms; and no patients were enrolled on the INH regimen to satisfy the protocol.

A Ministry of Health (MISAU) circular that provides guidance to selected provinces, including those where the five TPT study sites are located, specifies that the 3HP regimen should be used exclusively as it is a shorter regimen for TPT. Hence, ANARME, IP is considering the implication of the MISAU guidance on the TPT study and aligning the protocol with this circular.

Table 16: Patients enrolled since the start of the TPT active surveillance system and follow-up visits as of March 2023

Health Facility	Location (district, province)	Month patient enrollment commenced	No. of enrolled patients as of March 10, 2023 (Form A)	No. of patient follow-up visits as of March 10, 2023 (Form B)	No. of reported AEs as of March 10, 2023
Xipamanine	Maputo, Maputo City	Aug 2022	30	28	-
Albasine	Maputo, Maputo City	Aug 2022	69	34	-
1 de Junho	Maputo, Maputo City	Aug 2022	51	19	26
Xilembene	Chokwe district, Gaza province	Aug 2022	32	40	-
Mandlakazi Rural Hospital	Chokwe district, Mandlakazi province	Aug 2022	116	246	-
Total			**298**	**367**	**26***

*All reported AEs are mild

Low patient enrollment, turnover of trained staff, poor involvement of focal persons and substitute clinicians in study implementation, and weak motivation of staff at the five study sites have contributed to the slow progress of implementation, poor recording of follow-up visits, and failure to reach the enrollment target.

MTaPS also supported ANARME, IP to continue overseeing study implementation and ensure coordination and collaboration among stakeholders. MTaPS held another coordination meeting with ANARME, IP on March 16, 2023, to discuss the findings regarding the status of protocol implementation following the onsite supervisory visits as well as the identified challenges discussed with the implementing site teams. To address these challenges, the following actions have been taken:

- MTaPS prepared a report for ANARME, IP on activities that have been undertaken from the start of the study to date, the achievements and challenges so far, and next steps.
- MTaPS prepared a presentation summarizing the status of study implementation for use by ANARME, IP to update the HIV and TB programs and discuss the implications of the supervision findings and the MISAU circular with them to determine a way forward.
- MTaPS will focus on increasing the frequency and regularity of meetings of the technical focal persons at the central level to discuss progress and plan next steps. This will help improve coordination.
- MTaPS will redefine the roles and responsibilities of each stakeholder at all levels, share the redefined roles and responsibilities, and implement them.

BEST PRACTICES/LESSONS LEARNED

- Early implementation support is needed at facility level sites to align their approaches to enrollment and data collection.
- Data systems need to be in place before implementation and enrollment begins.

- Site selection should take into consideration the following requirements: availability of medicines, facility staff and their capacity to participate, lab accessibility, planned refresher trainings throughout the study period, and aligned approaches to patient follow-up.
- During the activity budgeting process, consider providing incentives, such as transportation, for study teams conducting active monitoring at the HF level. These would be in addition to the airtime communications allowance currently provided.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Y4 Activity 3.1.2/Y5 Activity 3.1.1: Implement an active PV program for safety monitoring of TPT scale-up in Mozambique ▪ Support ANARME, IP in drafting a letter to the National Bioethics Committee to request approval for the modification of the protocol to a cohort event monitoring design to align with the guidance from the MISAU circular. ▪ Develop a transition plan for the proper conclusion of the study. ▪ Support ANARME, IP in conducting the next rounds of onsite supportive supervision.	April–June 2023
Y4 Activity 3.1.1: Provide technical assistance to establish an active surveillance system for newly introduced medicines in HIV and TB programs ▪ Work with ANARME, IP and MTaPS global expert partner University of Washington to complete data analysis and subsequently disseminate findings.	April–June 2023

Table 17. Quarter 2, FY23, Activity Progress, Mozambique—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
Activity 3.1.1: Implement an active PV program for safety monitoring of TPT scale-up in Mozambique (activity continuing from FY22) **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 ASM, assist in analysis and interpretation of data, and disseminate results; conduct periodic cleaning and data quality checks; conduct periodic statistical analysis of data obtained; generate quarterly progress update reports and final report on the findings of the active surveillance, along with lessons learned and recommendations.	5.3	PViMS training was undertaken for the three Maputo City site teams, hence all five study site teams now are trained on the use of PViMS for data entry. Round 1 of onsite supportive supervision was completed for Maputo City sites, while round 2 was completed for Gaza Province site teams. Findings discussed by ANARME, IP and MTaPS with determination of recommended actions.

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS in Mozambique is to strengthen technical and managerial capacities within the human and animal health systems to contain the emergence and propagation of AMR. This goal is consistent with USAID's strategic objective to slow the emergence of resistant microbes and prevent the spread of resistant infections and is also a priority area for the National Action Plan for Health Security (PASS, formerly PNASS). Controlling the global hazard of AMR relies on robust pharmaceutical systems worldwide that address the appropriate use of, and access to, medicines, which is the core mission of MTaPS. The MTaPS GHSA strategy is grounded in a system-strengthening approach in three technical areas pivotal to containing AMR: MSC-AMR (JEE 2.0 indicator P.3.1), IPC (JEE 2.0 indicator P.3.3), and AMS (JEE 2.0 indicator P.3.4). Version 3 of the JEE tool was recently developed, and MTaPS is aligning activities to this version as much as possible without disrupting the measurement of progress made so far.

CUMULATIVE PERFORMANCE TO DATE

In Mozambique, the JEE was conducted in 2016. The country received a score of 3 for IPC and a score of 1 for AMS capacities. Mozambique received no baseline score on MSC-AMR because that indicator was not included in the WHO JEE 1.0 tool used at the time, but it was included in the JEE 2.0 released in 2018.

As of September 2022, MTaPS helped country stakeholders achieve progress in MSC-AMR by supporting 50% of level 2 benchmark actions (with 1 action completed outside MTaPS support in this level), 50% of level 3 benchmark actions (with the remaining 50% of benchmark actions at this level achieved outside MTaPS support), and 25% of level 4 benchmark actions. On IPC, MTaPS supported the IPC team from the National Directorate of Medical Assistance Department of Nursing (DNAM-DE) to complete 4 out of 5 (80%) benchmark actions for capacity level 2, and 4 out of 6 (67%) benchmark actions for capacity level 3. For AMS, MTaPS supported 2 out of 4 (50%) benchmark actions for capacity level 2; 3 out of 6 (50%) actions for capacity level 3; and 1 out of 7 actions (14%) for capacity level 4.

Since PY3, MTaPS has been collaborating with the MISAU, ANARME, IP, and the National Institute of Health (INS), among other stakeholders, to establish a multisectoral coordinating structure for AMR in the country. In PY3, MTaPS supported the drafting of the TORs for the MCC and its secretariat and for the AMS and IPC TWGs. The MCC membership structure was validated by MISAU as well as environmental sector and animal health stakeholders. The IPC and AMS TWG TORs were updated, while TORs for the new communication, education, and awareness (CEC), and surveillance and research (VP) TWGs were developed, and all TORs were validated. The AMR MCC now has four TWGs, namely IPC, AMS, VP, and CEC.

MTaPS' support contributed to increased participation of key stakeholders in AMR MCC meetings, greater coordination among the relevant ministries (human health, animal health, and environment), and improved alignment of agenda items with the NAP-AMR. It also contributed to updates on AMR-related activities undertaken by IPs and to the IPC and AMS TWG meetings being more focused on the use of

WHO tools. Also included in the agenda of meetings were items related to the availability of in-country data on AMR and the prioritization of the implementation of the NAP activities by all sectors. The health ministry appointed a focal point for AMR MCC and for each TWG to lead the secretariat and TWGs, respectively.

To date, with MTaPS support, three AMR MCC meetings, two IPC TWG meetings, and two AMS TWG meetings have been held. During PY4, the IPC TWG held one meeting, and the VP and CEC TWGs, having only been recently established, did not hold any meetings. There also were no AMS TWG meetings, despite MTaPS' follow-up with the AMS TWG focal point and the AMR MCC secretariat. The MCC secretariat and AMS TWG have held meetings that focused on planning and organizing the 2021 and 2022 WAAW. The PY4 IPC TWG meeting discussed the TWG's performance against its plan of action and adapted guidance on implementing a CQI approach for use in the local context. This guidance will be used to orient HFs on implementation of CQI to improve IPC practices.

In PY2 and PY3, COVID-19 funds from USAID were leveraged for IPC training in all provinces to bolster the IPC response to the pandemic. Seven provincial hospitals (PHs)—Inhambane PH, Tete PH, Xai-Xai (Gaza) PH, Lichinga PH, Pemba PH, Chimoio PH, and Matola PH— were targeted for focused support in the use of standard tools for monitoring IPC and informing programmatic improvement. MTaPS also supported the central-level IPC program to identify gaps using the WHO IPCAT2 tool and to develop an action plan to address those gaps. MTaPS also assisted the seven PHs in improving their IPC performance using WHO's IPCAF tool. In PY4 Q1, to strengthen the capacity of provincial IPC teams, MTaPS trained 44 master trainers (21 female, 23 male) on IPC and conducted a repeat IPCAT2, with the central-level IPC team using the results to help identify priority areas, such as surveillance of HAIs, that needed strengthening. Repeat IPCAF was also done for three selected provincial hospitals (Inhambane PH, Tete PH, and Xai-Xai PH) in PY4.

MTaPS, in collaboration with the National Directorate of Medical Assistance Department of Hospital Therapeutics (DNAM-DTH), ANARME, IP, and INS, implemented hospital-level AMS interventions in three of the seven targeted HFs (Inhambane PH, Tete PH, and Xai-Xai PH) that had been trained on AMS in February 2020. Although the three hospitals had established AMS committees with TORs, those committees ceased functioning in PY 3 due to the COVID-19 pandemic. Instead of in-person visits, MTaPS facilitated virtual introductory meetings with the hospitals and remotely supported their initial organizational activities.

In PY4, MTaPS, in collaboration with ANARME, IP and INS, supported the DNAM-DTH to undertake AMS interventions in the three provincial hospitals (Tete, Gaza, and Inhambane), whereby a baseline assessment was conducted using the WHO AMS toolkit. In consultation with HF staff, the results were used to develop facility AMS action plans. MTaPS also supported ANARME, IP to initiate the process of categorizing antibiotics into the WHO AWaRe classification system, with the aim of inserting the update into the Essential Medicines List and National Medicines Formulary. In addition, MTaPS, in collaboration with ANARME, IP, undertook an assessment via desk review of the country's AMS policies and regulatory framework for the human health sector. MTaPS supported ANARME, IP in developing a draft regulation for prescription-only sales of key antibiotics, which is pending stakeholder validation, and will help establish a firm foundation for AMS in the country by creating a solid regulatory framework to control the use of antimicrobials. This effort complements the USAID MTaPS field support work plan,

which from PY1 to PY3 supported the revision of laws and regulations pertaining to the role of ANARME, IP as the national regulatory authority.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

MTaPS held a multisectoral workshop on February 2, 2023, involving DNAM-DE, DNAM-DTH, ANARME, IP, and other counterparts, to advocate for continuation of IPC and AMS TWG and AMR MCC activities. During the workshop, the MTaPS team worked with the counterparts to review the activities and propose an activity timeline and ways to monitor their implementation.

RESULT AREA 1: EFFECTIVE MSC-AMR

Activity 1.1.1: Continue to support the governance and organizational capacity of the AMR MCC, gearing toward sustainability

MTaPS organized a multisectoral workshop for February 2, 2023, involving DNAM-DE, DNAM-DTH, ANARME, IP, and other counterparts to advocate for continuation of IPC and AMS TWG and AMR MCC activities. During the workshop, the MTaPS team worked with the counterparts to review the activities and propose an activity timeline and how to monitor their implementation. During the quarter, MTaPS held meetings with DNAM-DTH and ANARME, IP to address alignment of the MTaPS activities with the government's Economic and Social Plan (PES) and the National AMR Action Plan. The meeting with DNAM-DTH was held on March 7, 2023, while the meeting with ANARME, IP was held on March 9, 2023.

MTaPS participated in a technical sector meeting on March 16–17, 2023, at ANARME, IP with FAO, DNAM-DTH, ANARME, IP, and INS, among other stakeholders, to review the communication strategy for the animal health sector. The meeting had 16 participants (7 male, 9 female) who engaged in group discussions reviewing the draft communication strategy. A subsequent meeting is planned to validate the strategy.

RESULT AREA 2: IPC

Activity 2.5.1: Continue to support the implementation of prioritized IPC interventions in selected HFs

While supporting IPC training related to the rollout of COVID-19 vaccination at provincial and lower levels, MTaPS visited three health facilities (Marracuene HF, Dondo HF, and Nacala Porto PH) on March 23, 2023, where IPC and hand hygiene assessment tools were piloted. Also, MTaPS supported DNAM-DE in the remote monitoring of the implementation of the facility IPC action plans for the three supported sites by advocating to the facility IPC committee to implement the actions and discussing identified gaps in IPC implementation.

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

Activity 3.1.1: Continue to strengthen the governance of the AMS program at the national level

MTAPS participated in a stakeholder review workshop on the assessment report for the AMS policy and regulatory framework for the animal health sector on March 1, 2023. Forty participants attended, and

two reports were discussed: Mapping of the Supply Chain of Veterinary Medicines in Mozambique; and Evaluation of the Legal and Institutional Framework Related to the Use of Antimicrobials and Antimicrobial Resistance (Animal Health). These animal health reports will be combined with the assessment report on the human health sector to inform the development of a One Health AMS action plan.

BEST PRACTICES/LESSONS LEARNED

- Dedicated work with partners to ensure government priorities are aligned with the MTaPS work plan is important to facilitate smooth and timely implementation of activities. This quarter, to facilitate activity implementation and upcoming closeout, MTaPS invested time in collaboration with ANARME, IP, and DNAM to ensure they were on board with the planned MTaPS Q3 activities and closeout planning. These efforts will mitigate challenges and implementation delays related to different work planning timelines for government counterparts and USAID/MTaPS and the transition of activities to government focal points.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Continue to support the governance and organizational capacity of the AMR MCC, gearing toward sustainability ▪ Support functionality of the AMR MCC and its TWGs in their efforts toward multisectoral coordination	April–June 2023
Activity 2.2.1: Enhance and sustain governance for IPC ▪ Undertake repeat IPCAT2 and provide technical support for IPC central interventions to DNAM-DE and the IPC TWG	April–June 2023
Activity 2.5.1: Continue to support the implementation of prioritized IPC interventions in selected HFs ▪ Undertake IPC supervision and provide technical support for IPC interventions to the three supported sites	April–June 2023
Activity 3.1.1: Continue to strengthen the governance of the AMS program at the national level ▪ Finalize AWaRe categorization and validation of draft regulation for antibiotic use with ANARME, IP and stakeholders ▪ Undertake central level AMS baseline assessment using the WHO AMS assessment tool ▪ Provide technical support for central level AMS interventions to DNAM-DTH, ANARME, IP, and stakeholders of the AMS TWG	April–June 2023
Activity 3.5.1: Continue to support the design and implementation of AMS interventions in priority HFs ▪ Undertake AMS site supervision in, and provide technical support for AMS interventions to, the three supported sites	April–June 2023

Table 18. Quarter 2, FY23, Activity Progress, Mozambique—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.1.1: Continue to support the governance and organizational capacity of the AMR MCC, gearing toward sustainability **Activity description:** Continue to support the holding of MSC meetings and the functionality of the AMR MCC and its IPC and AMS TWGs; commemorate the 2022 WAAW through organization of public events, symposia, and display of products showcasing progress; identify and implement opportunities to utilize stakeholder dialogues, roundtables, and other forums.	5.4	1.1	MTaPS worked with DNAM-DTH and ANARME, IP to align priorities from the government's PES and the National AMR Action Plan with MTaPS' approved work plan activities for the period between April and June 2023. MTaPS revised the TORs for the AMR MCC, IPC and AMS TWGs, following restructuring in ANARME, IP and staffing changes in MISAU/DNAM.
Activity 2.2.1: Enhance and sustain governance for IPC **Activity description:** Support the IPC TWG in organizing routine review meetings; review implementation status of the IPC TWG's action plan; monitor strengthening of the core components of the IPC program using the WHO tools; develop a protocol for surveillance of HAIs and surveillance training materials; review the IPC e-Learning modules' content against the revised National IPC manual.	5.4	2.2	MTaPS continued the refining of the draft National IPC plan and National IPC protocols.
Activity 2.5.1: Continue to support the implementation of prioritized IPC interventions in selected HFs **Activity description:** Provide technical assistance to DNAM-DE and provincial focal persons on selected IPC interventions based on action plans for the three intervention hospitals, including ongoing support on hand-hygiene self-assessment; follow up on progress of facility IPC action plan implementation; implement CQI through the IPC TWG and provincial focal persons.	5.4	2.5	MTaPS visited three health facilities on March 23, 2023, where IPC and hand hygiene assessment tools developed in response to COVID-19 vaccination rollout efforts were piloted. MTaPS supported DNAM-DE in remote monitoring of the implementation of the facility IPC action plans of the three supported sites by advocating to the facility IPC committee to implement their planned IPC actions and discussing identified gaps in IPC implementation.
Activity 3.1.1: Continue to strengthen the governance of the AMS program at the national level **Activity description:** Support finalization of AWaRe classification and validation of the draft regulation on prescription-only sales of key antibiotics and development of draft provision for appropriate use of antimicrobials. Undertake central level AMS assessment and develop action plan to address identified gaps. Finalize combination of human and			Data collection on sensitivity to antibiotics was conducted at Maputo Central Hospital over the week of March 6–10, 2023. The data is to be used to refine the AWaRe categorization of antibiotics. MTAPS participated in a stakeholder review workshop on the assessment report for the AMS policy and regulatory framework for the animal health sector on March 1, 2023. MTaPS is organizing a similar stakeholder review workshop for its developed human health sector report and has developed a TOR for the planned workshop.

animal health AMS assessment reports with FAO, ANARME, IP, and stakeholders and the development of a joint AMS action plan.			
Activity 3.5.1: Continue to support the design and implementation of AMS interventions in priority HFs **Activity description:** In collaboration with DNAM-DTH, ANARME, IP, and AMS TWG, provide onsite and remote technical assistance to the three intervention hospitals, support the three focus HFs in reviewing their progress on facility AMS action plan implementation, and advise them on interventions to guide improvement in AMS practices.	5.4	3.5	MTaPS has agreed on a schedule for the planned supervisory and supportive visits to the three supported facilities for April 2023 with DNAM–DTH and DNAM-DE. MTaPS and DNAM-DTH developed the TOR for the planned site visits and agreed on site visit team composition and dates.

L. NEPAL

FIELD SUPPORT ACTIVITIES

OVERVIEW

To strengthen pharmaceutical systems, MTaPS Nepal bolsters the pharmaceutical sector, medical product regulation, and medicines management in close collaboration with the MOHP at the central and district levels, the DOHS, and the DDA. MTaPS Nepal supports policy, legislative, and system revision and implementation of best practices in collaboration with the public and private sectors. There are many interlinked challenges, and the selected strategies focus on evidence-based prioritized problems and WHO best practices operationalized by multipronged interventions implemented with broad stakeholder involvement, including the private and public sectors.

CUMULATIVE PERFORMANCE TO DATE

Since beginning work in Nepal in 2020, MTaPS has strived to improve the regulatory ML of the DDA, Nepal's regulatory body, to ensure that medicines and health technology products are safe, effective, and of good quality. With MTaPS' support, 55% of the institutional development indicators under ML 1 and 2 have now been addressed. A new Drug and Health Product Bill with associated registration regulations and an updated Code on Sales and Distribution, which includes GPP and GSDP guidelines, are in the final stages of government approval and will be ready for implementation through agreed multipronged implementation strategies. Transitioning from the existing Drug Administration and Management System to the new DDA-MIS based on the Open Regulatory Information Management System (Open RIMS) has been challenging but achievable, with all registration and reporting modules finalized and ready for UAT and further implementation. Work to strengthen the regulation of clinical trials and PV and set up a QMS has progressed well in terms of regulation, capacity building, and systems development. MTaPS, in collaboration with the MOHP and Curative Service Division (CSD), successfully designed the SPARS and initiated the pilot study in 12 districts with 60 trained MMS conducting baseline assessments and supportive supervision in more than 100 government HFs. Support for AMR containment started with a focus on mapping related activities being implemented by different stakeholders. Further progress on increasing the DDA's capacity and ML is dependent on obtaining government approvals for the new drug bill, the new QMS, and the plan for reorganizing the DDA with increased staffing norms.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

MTaPS continued making steady progress toward modernizing and strengthening the regulatory maturity of the DDA. The DDA's MALAP was updated to reflect progress in strengthening the regulatory ML in eight areas toward ML 3. Important progress was also achieved in terms of legislation, with the Government's Cabinet Secretariat's formal approval to replace the Drug Act, 1978, with the new Drug and Health Product Bill; the Law Commission is reviewing the draft bill. Drafting the medicines pricing regulation progressed well with completion of the stakeholder consultation, drafting of the situation analysis, and the study review. MTaPS assisted the DDA in preparing an indicator-based implementation and monitoring plan for submission to the MOHP along with the Nepal Medicines Policy for approval.

To strengthen the DDA's competency, MTaPS discussed the developed training strategy with the DDA and the Nepal Administrative Staff College, a governmental training institute, to implement priority training on leadership and management skills for DDA staff. The GPP and GSDP e-learning modules were finalized and will be uploaded to the DDA website by the DDA information technology section. Local vendors have been contracted to carry out the GPP and GSDP capacity building and assessment for wholesalers and pharmacies along with DDA inspectors. MTaPS provided technical resource materials relevant for PV implementation to regional centers. The DDA-MIS modules on product registration and manufacturer registration were finalized and are ready for UAT, completing the full registration package that will be piloted and go live next quarter. Efforts to establish DDA-MIS help desks in all four offices and contract a local vendor to provide general operational technical support are in the final stage of approval. Collaboration with the CSD to implement the SPARS pilot study is well established, with regular biweekly coordination meetings, and the CSD is leading the study implementation. The DDA Director General endorsed the QMS manual, and preparations are under way for the first DDA internal audit. MTaPS developed a blog on the work done in antimicrobial resistance containment. MTaPS' home office senior management team visited Nepal in February to provide input on program implementation and hold meetings with the USAID Mission and stakeholders, including a visit to a province to observe program implementation.

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.1: Assist DDA in organizational restructuring: Based on the DDA competency mapping and training plan, MTaPS coordinated with the Nepal Administration Staff College to improve the leadership and management skills of DDA staff.

Activity 1.2.1: Update the regulations, rules, and guidelines: The final version of the Drug and Health Product Bill is still under review by the Nepal Law Commission. In coordination with the DDA, MTaPS drafted three regulations and codes needed for implementation of the bill—the Drug and Health Products Registration Regulation, Inspection and Investigation Regulation and Drug and Health Product Consultative Council, and Advisory Committee Regulation. The Drug and Health Product Standard Regulation is still being drafted. The DDA needs to submit the final version of the Code on Sales and Distribution to the MOHP for approval. MTaPS drafted a situational analysis on pharmaceutical products price regulation based on stakeholder consultations and a literature review on medicines prices in Nepal. The analysis findings were presented to the DDA and WHO experts for review and input. This will initiate price regulation of medicines and health technology products so that patients will get them at a fair price.

Activity 1.2.2: Revise and update the Nepal National Medicines Policy: MTaPS assisted the DDA in preparing an indicator-based implementation and monitoring plan for the Nepal Medicines Policy, which is awaiting final review before being forwarded to the MOHP for finalization. The planned meeting was postponed while awaiting the appointment of a new Minister at the MOHP. Having a revised Nepal Medicines Policy is essential for UHC and to ensure that people get safe, effective, and quality-assured medicines.

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 continued to hold regular update meetings with the DDA, WHO, and PQM+ and provided support to increase the DDA's regulatory ML. As of this quarter, 73% of the institutional development indicators linked to ML 1 indicators and 62% linked to ML 2 indicators have been drafted by MTaPS and are awaiting approval from the Government of Nepal. The institutional development plan for health technology products developed by WHO was integrated into the DDA MALAP. This integration provides one development document that encompasses all plans and can be used to track progress toward the maturity of the functional areas without duplication or overlap of activities.

Activity 2.2.2: Strengthen regulatory systems for medical products registration: Installation of a new document repository system (flooring and shelving) for dossiers, files, and registration materials began. This will strengthen the document management system at the DDA as part of the QMS.

Activity 2.2.3: Strengthen regulatory system for medical devices registration: MTaPS continued to support updating the health technology products (HTP) directives on HTP registration and detailing an implementation plan and strategy on initiating registration or notification of HTP in the country. MTaPS drafted a list of high-priority essential HTP and is ready for discussion with the DDA. The DDA-MIS module for HTP registration is ready for UAT. Regulating HTP is one step toward a mature regulatory authority that ensures that patients get quality-assured medical devices.

Activity 2.2.4: Strengthen pharmacovigilance at national and provincial levels: As part of its support to strengthen PV reporting quality and quantity, MTaPS procured information resources to improve the quality of PV reports by the PV centers. MTaPS procured membership in the International Society for Pharmacovigilance and medicines information materials from pharmaceutical press relevant to regional PV centers and the DDA. MTaPS also drafted a technical brief on PV capacity building activities, and three modules of the PV e-learning course are in the final stages of completion. Information resources will support PV contact persons in regional centers to get access to updated medicines information, check ADRs, and monitor medicines so that the quality and quantity of ADR reports will increase.

Activity 2.2.5 and 2.2.6: Strengthen GPP and GSDP: Implementation of the multipronged strategy to strengthen GPP and GSDP progressed well in alignment with the strategy focused on capacity building followed by implementation assessment and GPP and GSDP inspection. The GPP and GSDP e-learning modules were finalized in Nepali with English subtitles and will be uploaded to the DDA website once approved by the National Information Technology Center. Vendors have been selected to implement the training and certification assessment on GPP and GSDP. For the GPP IEC strategy, MTaPS recruited a vendor to develop public service announcements to create awareness on the appropriate use of medicines. The scripts for the IEC materials are being finalized by the DDA. This will aid the implementation of GPP and GSDP by actively involving multisectoral stakeholders and providing them with capacity-strengthening resources and IEC strategies to ensure sustainability.

Activity 2.2.7: Strengthen Good Hospital Pharmacy Practices (GHPP): The CSD, with MTaPS' support, finalized the contents of the capacity-strengthening package for hospital pharmacists, and

planning for the provincial-level training sessions is under way. The second TWG meeting provided preliminary feedback on the draft hospital pharmacy service directives.

Activity 2.2.8: Assist DDA in developing a quality management system (QMS): The DDA Director General signed the QMS manual, which has paved the way to ISO certification as part of a mature regulatory system. A vendor has been contracted to develop and implement a QMS document management system that will help the DDA properly track documents. The clinical trial inspection checklist drafted by MTaPS is ready for DDA approval. This will enable the DDA to conduct a clinical trial inspection to ensure ethical and safety standards to protect study participants.

DDA staff test the install repositories for the document management system in Nepal. Photo credit: MTaPS

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 pharmacovigilance: The development of the DDA-MIS progressed well. The product and manufacturer registration modules were finalized for review by the DDA and UAT, and the full registration package is now ready for testing and implementation/go live. The SOWs for an international consultant to assist in the development of the remaining inspection and import modules of the DDA-MIS and for eight help desk consultants to support operations and system implementation at the central and three DDA branch offices are being finalized. MTaPS, in collaboration with the DDA, drafted a request for proposals for local IT vendors to manage the DDA-MIS after MTaPS ends as part of the pathway to sustainability. Other sustainability initiatives are free and open resources, e-learning materials, and training for DDA staff.

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

Activity 5.1.1: Strengthen medicines management in government sector health facilities: The CSD appointed a focal person to liaise with MTaPS and hold biweekly meetings to coordinate implementation of the SPARS pilot study. MTaPS conducted three coordination and collaboration meetings in Bagmati, Madhesh, and Lumbini provinces to strengthen communication and coordination on implementation of the SPARS pilot study among the CSD, Provincial Health Directorate, District Health Office, municipalities, and MMS. With the CSD, MTaPS conducted refresher training sessions for all 60 MMS from 12 districts to ensure good understanding of the updated SPARS assessment tool. By the end of the quarter, the MMS had conducted supervisory visits in 115 government health facilities and uploaded the assessment reports to the SPARS database. SPARS technical advisors verified the quality of all submitted reports and provided feedback to the MMS to improve the quality of reports.

Activity 5.3.1: Improve antimicrobial resistance (AMR) containment: MTaPS published a blog entitled "Strengthening One Health Initiative for Antimicrobial Resistance Containment in Nepal." The team also provided technical information about the AMR context in Nepal and MTaPS AMR

containment activities to a group of journalists from the *Lancet*, *Frankfurter Allgemeine Sonntagszeitung*, *Deutsche Welle*, and German and Austrian public radio. This has contributed to raising Nepal's AMR issues in international journal platforms. Additionally, during the quarter SOWs were developed and advertised on the job portal for two consultants to help with the AMR-related sensitization of media personnel in the provinces of Nepal.

BEST PRACTICES/LESSONS LEARNED

- When facing a roadblock, we need to seek an alternative, yet feasible, course of action. For example, the DDA was unable to move forward on finalizing the Code on Sales and Distribution because it was awaiting approval by the Drug Advisory Committee, which was delayed because of the uncertain and infrequent meetings of the Committee. MTaPS and the DDA are seeking an alternative approach of directly presenting it to the MOHP secretary to expedite the process.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Assist DDA in organizational restructuring	
▪ Finalize and hand over the remaining key job descriptions to DDA staff	April–June 2023
▪ Organize learning visit for DDA staff to higher ML medicines regulatory authority	April–June 2023
▪ Implement leadership and management training to DDA staff	April–June 2023
Activity 1.2.1: Update the regulations, rules, and guidelines	
▪ Draft inspection and investigation regulation and codes on cosmetics	April–June 2023
▪ Finalize drug and health product standard regulation	April–June 2023
▪ Finalize drug and health products clinical trial regulation	April–June 2023
▪ Draft code on sales and distribution of medical devices and health technologies and of chemical and reagents	April–June 2023
▪ Organize national-level consultation meeting with stakeholders to finalize the draft pricing regulation	April–June 2023
Activity 1.2.2: Revise and update the Nepal national medicines policy	
▪ Advocate for approval of Nepal Medicines Policy	April–June 2023
▪ Finalize Nepal Medicines Policy implementation and monitoring plan with MOHP and DDA	April–June 2023
Activity 2.2.1: Strengthening regulatory capacity and maturity	
▪ Make regular updates to DDA MALAP and take part in coalition of interested parties organized by WHO	April–June 2023
Activity 2.2.2: Strengthen regulatory systems for medical product registration	
▪ Arrange dossiers, files, and regulatory materials in the newly installed repository	April–June 2023
▪ Finalize Pharmadex/DDA-MIS/OpenRIMS, including UAT and employment of a local vendor	April–June 2023
Activity 2.2.3: Strengthen regulatory system for HTP registration	
▪ Finalize HTP directive amendment	April–June 2023
▪ Prepare e-learning material for HTP registration/notification	April–June 2023
▪ Develop list and registration standards for selected essential HTP	April–June 2023
Activity 2.2.4: Strengthen PV at national and provincial levels	
▪ Disseminate information resources to the DDA and regional PV centers	April–June 2023
▪ Finalize the e-learning modules on PV	April–June 2023
▪ Finalize the IEC materials on PV	April–June 2023
Activity 2.2.5 and 2.2.6: Strengthen GPP and GSDP	

▪ Start training stakeholders on GPP and GSDP guidelines	April–June 2023
▪ Upload the e-learning course to the DDA website and link to registration	April–June 2023
▪ Finalize the community awareness strategy on GPP	April–June 2023
Activity 2.2.7: Strengthen Good Hospital Pharmacy Practices	
▪ Train hospital pharmacists based on the finalized orientation package	April–June 2023
▪ Initiate approval of draft hospital directives and drafting of GHPP guidelines	April–June 2023
Activity 2.2.8: Assist DDA in developing a QMS	
▪ Support DDA to implement QMS internal audit and QMS document management software	April–June 2023
Activity 3.1.1: Implement pharmaceutical MIS, Pharmadex for registration, inspection, importation and exportation, and PV	
▪ Finalize all registration modules	April–June 2023
▪ Employ help desk consultants and local vendor to support DDA-MIS pilot and implementation	April–June 2023
▪ Develop the necessary e-learning modules on DDA-MIS/OpenRIMS	April–June 2023
▪ Finalize reporting and inspection module in DDA-MIS/OpenRIMS	April–June 2023
Activity 5.1.1: Strengthen medicine management in government sector health facilities	
▪ Develop and disseminate SPARS performance reports	April–June 2023
▪ Support MMS in the implementation of SPARS visits	April–June 2023
▪ Initiate SPARS impact assessment, inter-rater reliability, and cost-effectiveness studies	April–June 2023
Activity 5.3.1: Improve antimicrobial resistance containment	
▪ Recruit two expert consultants and conduct AMR sensitization workshops for journalists in all provinces of Nepal	April–June 2023

Table 19. Quarter 2, FY23, Activity Progress, Nepal—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.1.1: Assist DDA in organizational restructuring. **Activity description**: Implement selected training	1.1	As part of the DDA competency mapping and training plan, MTaPS coordinated with Nepal Administrative Staff College to conduct four trainings on report writing and document management, leadership and management, team building and teamwork, and fiscal budget preparation and planning.
Activity 1.2.1: Update Drug Act, regulations, rules, and guidelines **Activity description**: Finalize Drug Act, Code on Sales and Distribution, and selected and prioritized regulations and guidelines	1.2	The final version of the Drug and Health Product Bill is under review by the Nepal Law Commission. In collaboration with the DDA, MTaPS drafted three priority regulations The Code on Sales and Distribution is with the DDA to be forwarded to the MOHP for approval.
Activity 1.2.2: Revise and update the NMP **Activity description:** Finalize the draft Nepal Medicines Policy	1.2	A meeting to review the updated Nepal Medicines Policy and draft the implementation plan did not happen as planned because of the change in the national government after the election and the resignation of the health minister.
Activity 2.2.1: Strengthen regulatory capacity and maturity **Activity description:** Implement regular MALAP updates toward increased ML	2.2	MTaPS continued addressing the MALAP's ML 1 and 2 indicators and included institutional development indicators for HTP in the DDA MALAP. Drafting of clinical trial regulations and guidelines continued as part of increasing ML 2 in clinical trial function.
Activity 2.2.2: Strengthen regulatory systems for medical products **Activity description:** Finalize strategy for product registration, update SOP, and implement revised practices	2.2	MTaPS completed the flooring and installation of repositories at the DDA offices to properly and securely store dossiers, files, and regulatory materials. The DDA is reviewing the SOP on product characteristics, and the DDA-MIS registration module with updated workflows is ready for UAT to align the DDA with WHO best practices.
Activity 2.2.3: Strengthen regulatory system for medical device registration **Activity description:** Organize a stakeholder meeting, develop standard specifications of selected medical devices, and finalize draft registration guidelines in line with the DDA-MIS	2.2	MTaPS held a preliminary discussion with the DDA to update the HTP directive; the essential HTP list is still being reviewed by the DDA. The HTP registration module in the DDA-MIS is ready for UAT.
Activity 2.2.4: Strengthen pharmacovigilance at the national and provincial levels **Activity description:** Streamline PV reporting and finalize SOP with associated tool to increase ML 1	2.2	MTaPS Nepal finalized the license agreement to provide DDA central and regional centers with a complete package of detailed information on medicines, medicines regimens, and drug interactions; the information will facilitate reporting of ADRs to the DDA. The script for the three modules of the PV e-learning course was drafted and is ready for discussions with the DDA.

Activity	MTaPS Objective(s)	Activity Progress
Activity 2.2.5: Strengthen GPP **Activity description:** Develop GPP e-learning course and initiate implementation of GPP strategy, including community awareness ***Activity 2.2.6:*** Strengthen GSDP **Activity description:** Finalize GSDP guidelines, inspection tool, and e-learning material to train wholesalers	2.2	Approval to upload the e-learning materials on GPP and GSDP to the DDA website from the National Information Technology Center is pending. Two vendors were selected to build GPP and GSDP capacity of pharmacy personnel and to assess implementation of GPP and GSDP practices in pharmacies and wholesalers. MTaPS recruited a vendor to develop IEC materials to create public awareness on appropriate use of medicines; the script for the materials is being finalized by the DDA.
Activity 2.2.7: Strengthen good hospital pharmacy practices (GHPP) **Activity description:** Update the GHPP directive and guidelines and develop the GHPP capacity building strategy	2.2	MTaPS continued to support the CSD in finalizing the contents of the capacity building package for hospital pharmacists. The draft of the hospital pharmacy service directives was presented to the TWG for review and feedback.
Activity 2.2.8: Assist DDA in developing a QMS **Activity description:** Finalize QMS manual and SOP toward ISO 9001:2015 certification	2.2	The DDA Director General signed the QMS manual, and approval for the SOPs is ongoing. The procurement of a document management system progressed well, and a vendor has been selected to customize the system to DDA needs. The internal quality audit has been initiated and is planned to be completed next quarter.
Activity 3.1.1: Implement pharmaceutical management information system Pharmadex for registration, inspection, importation and exportation, and PV **Activity description:** Finalize and implement the DDA-MIS registration module	3.1	All registration modules in the DDA-MIS were finalized and/or are ready for UAT. The request for proposals to contract a local vendor to assist in the piloting and implementation of DDA-MIS was finalized. The SOWs to hire an international consultant to support the implementation process and finalize the inspection and reporting modules and for eight help desk consultants to work from central and branch DDA offices were prepared.
Activity 5.1.1: Strengthen medicine management in government-sector health facilities **Activity description:** Implement SPARS in selected districts	5.1	The CSD appointed a focal person to coordinate the implementation of the SPARS pilot study with MTaPS and held regular coordination meetings with provinces, districts, and municipalities. The SPARS tool was updated and translated, and refresher training was provided to all 60 MMS. More than 100 facility supervisory visits were conducted in all 12 districts included in the pilot, and the reports were uploaded to the database for quality checking and data cleaning.
Activity 5.3.1: Improve antimicrobial resistance containment **Activity description:** Implement situation analysis and support revision of national plan	5.3	MTaPS Nepal published a blog entitled "Strengthening One Health Initiative for Antimicrobial Resistance Containment in Nepal." An SOW was prepared for two consultants to assist in developing and implementing antimicrobial awareness training for journalists/media personnel.

M. NIGERIA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of the USAID MTaPS Program in Nigeria is to support AMR containment by slowing down the emergence of resistant bacteria and preventing the spread of resistant infections. In this regard, MTaPS/Nigeria is focused on supporting three result areas: effective MSC on AMR, IPC programs, and optimizing use of antimicrobial medicines. MTaPS Nigeria's approach includes supporting the country to improve its JEE scores in all three result areas.

CUMULATIVE PERFORMANCE TO DATE

MTaPS' work to strengthen MSC for AMR, IPC and AMS in Nigeria is guided by the JEE/WHO IHR benchmark actions. As of September 2022, MTaPS has supported the completion of 10 (16%) of the 62 total WHO benchmark actions—4 contributing to MSC/AMR, 4 to IPC, and 2 to AMS, while 10 other benchmark actions are ongoing and at various stages of completion.

In MSC, the country had completed all 4 benchmark actions in capacity level 2 (with support of other partners). MTaPS supported the country to further complete 2 of the 4 actions in capacity level 3. MTaPS, in collaboration with the AMR TWG secretariat, is also supporting 75% of benchmark actions at capacity level 4. The country is on track with MTaPS support to completing 100% of level 4 and 80% of level 5 benchmark actions by the end of FY23 (PY5). MTaPS revitalized national IPC and AMS subcommittees, developing terms of reference and work plans. MTaPS also supported the establishment of state-level committees in Enugu and Kebbi, mirroring the federal committees with terms of reference and state plans. MTaPS' support to the national AMR TWG has improved the regularity of quarterly subcommittee meetings. In addition, the strengthening of the governance structure through MTaPS support to the AMR TWG at the national subcommittees level has fostered improved the working relationship between the human health, animal health, and environment sectors. Following the review of the 2017–2022 NAP-AMR, MTaPS is working with the Antimicrobial Resistance Coordinating Committee (AMRCC) and other partners to support the development of a new 2022–2028 NAP-AMR by engaging the consultant that would coordinate the process. At the subnational level, MTaPS provides ongoing program support to the state AMR TWG in Kebbi and Enugu states.

In IPC, MTaPS support is helping to move the country closer to JEE level 3 with MTaPS contributing to 3 (60%) out of the 5 benchmark actions in level 2 and 4 (66%) of the 6 actions at level 3. MTaPS supported the AMR TWG secretariat to develop the national IPC strategic plan in FY22, a capacity level 3 benchmark action. MTaPS had earlier supported the AMR TWG secretariat to review the 2013 national IPC policy and national IPC SOPs for facility-level use. The IPC SOPs were incorporated into the national guidelines, which were printed and disseminated to all MTaPS supported facilities. MTaPS in collaboration with the NCDC, has conducted training on the guidelines in all 7 supported facilities. At the state level, MTaPS, in collaboration with NCDC, supported the development of subnational state IPC plans in Enugu and Kebbi. 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 baseline assessments conducted using WHO IPCAT2 to assess the state-level programs and IPCAF/HH tools to assess facility-level programs. Guided by the result of the baseline assessment, MTaPS supported 7 facilities to develop improvement plans with a CQI approach for monitoring improvements. State and facility IPC committees and teams in Enugu and Kebbi states were inaugurated in collaboration with the state ministry of health (SMOH) and facility management. Through an in-person competency-based training approach, the capacity of 59 members (21 male, 38 female) of the seven facility teams was built 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, the facility teams conducted step-down training with about 550 staff. MTaPS provides ongoing monitoring of these programs remotely and through mentoring visits to the facilities.

In AMS, as of September 2022, MTaPS supported the country's AMR TWG secretariat to implement two benchmark actions at capacity level 2, with two benchmark actions in-process with the goal of moving the country's AMS program baseline JEE score of 2 to the next JEE level. With MTaPS support, the country is on course to achieve 100% completion of level 2 benchmark actions by the end of FY23 and it is positioned for JEE level 3 AMS capacity.

At the state level, three selected HCFs in Enugu state and four HCFs in Kebbi state established AMS programs. After the AMS programs were established in the supported facilities, AMS/IPC hybrid committees were established in Enugu and Kebbi states. The hybrid committees are to ensure regular meetings and effective oversight of IPC and AMS activities in the facilities and to avoid the repercussions of multiple, ineffective committees. The active hybrid committee model established at these facilities has enhanced the functionality of the facility AMS and IPC teams. The AMS team at one of the seven supported facilities has developed a hospital formulary to guide the procurement and prescription of essential antibiotics at the facility level. Local formularies were not in use in any of the supported facilities before MTaPS intervention. The laboratories at the facilities in Enugu state and Federal Medical Center Birnin-Kebbi (FMC B/K) have begun developing hospital antibiograms to help streamline antibiotics prescription in the HCF and to guide empirical prescribing of antibiotics at the facility. MTaPS supported the AMU-PPS in six supported facilities. The outcome of the PPS detailed the prescribing patterns of health care providers and established a baseline for antibiotics use in the facilities, thus identifying specific areas for AMS team intervention. All the facilities surveyed reported access groups of antibiotics in the range of 18%-53%, which is less than the required WHO cut-off of 60%. MTaPS provided feedback on the outcome of the AMU-PPS to facility AMS teams during monitoring and supportive supervisory visits for use in updating their facility AMS plans. This feedback guided facility AMS teams to provide targeted and more effective engagement with prescribers and other health care providers across supported facilities.

The national OH AMS plan has been developed through MTaPS support to the country's AMR TWG. This document serves to provide strategic direction for AMS activity design and implementation across the health care levels in both the human and animal health sectors in Nigeria. A critical step in establishing an AMS program in a country is the development of the WHO AWaRe categorization of essential antibiotics used in the country to help control the misuse of lifesaving antibiotics. Following the inauguration of the TWG on AWaRe, sentinel sites and other laboratories in the country collected data,

although there were issues related to access and paucity of primary sensitivity data. MTaPS also supported a meta-analysis of published data on resistance and sensitivity patterns of common microbes to commonly used antibiotics in Nigeria. The report is now ready and will feed into the AWaRe process. These sets of data will be presented to the AWaRe TWG committee in a workshop to initiate the categorization process for antibiotics in the country based on WHO AWaRe groupings.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

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 performance review of the 2017–2022 NAP-AMR in Quarter 1, FY23, and its presentation to the AMRCC on November 3, 2022, MTaPS is supporting the development of the new 2023–2028 NAP-AMR. The consultant engaged by MTaPS has commenced work on the coordination of all stakeholders involved in the NAP development, in concert with the NAP 2.0 development committee. This activity will contribute to achievement of a level 3 benchmark action on MSC, and it is tentatively planned for completion by June 30, 2023.

Activity 1.2.1: Continue to build managerial capacity within the AMR TWG and its subcommittees

MTaPS is supporting the engagement of a consultant to build the technical capacity of members of the national AMR TWG secretariat in the development of publishable scientific papers from some of their interventions. The consultant will undertake a review of activities of the national AMR TWG secretariat to identify interventions and develop knowledge management products (KMP). The KMPs will be developed based on experiences, lessons, and key outcomes, with priority given to those supported by MTaPS. The engagement of the consultant has reached an advanced stage of completion. The output will contribute to a level 2 benchmark action.

RESULT AREA 2: IPC

Activity 2.1.2: Support the development of national IPC viral hemorrhagic fever (VHF) guidelines for safety of health workers in health facilities

MTaPS, in collaboration with the national AMR TWG secretariat, supported the organization of a workshop to review the first edition of the IPC for VHF management guidelines on February 13 and 14, 2023. This MTaPS/NCDC activity had 20 (11 male, 9 female) participants drawn from facility IPC focal persons, clinical microbiologists, doctors, laboratory scientists, nurses, and other health workers in both the public and private sectors from across the country. These participants reviewed the IPC for VHF manual and updated the document to reflect IPC guidance to enhance safety of health workers responding to emerging and re-emerging VHFs, including Marburg virus disease and yellow fever. The zero draft IPC for VHF guidelines document, has been produced, and it is currently undergoing reviews by the NCDC's internal team prior to finalization and distribution to HCFs nationwide.

Activity 2.1.3: Strengthen HCAI surveillance in human health sector

In Quarter 2, FY23, MTaPS, in collaboration with the NCDC, developed the SOW for the assessment of HCAI types and surveillance capacity in six selected facilities in the country, and it identified a consultant to conduct the systematic review and assessment for HCAI surveillance types and facility capacities. The consultant's engagement process is ongoing and approaching completion.

Activity 2.2.1: Strengthen capacity of health care providers to implement IPC guidelines using multimodal strategies

MTaPS, in collaboration with the national AMR TWG secretariat, supported the organization of a workshop to strengthen capacity of 18 (3 male, 15 female) members of 3 MTaPS-supported facilities' IPC teams from February 16 to 17, 2023, in Enugu State. Through this workshop, the IPC teams strengthened their capacity in using multimodal strategies, CQI, and national IPC guidelines for implementing sustainable IPC programs. National IPC guidelines were presented and adopted by the state, and copies were provided to the IPC teams. The teams then applied these tools to develop a targeted intervention for a prioritized area—either environmental cleaning, waste management, or hand hygiene—in their facilities. Implementation of their developed interventions are ongoing.

Activity 2.5.1: Strengthening IPC core components and the functionality of IPC committees in supported hospitals

MTaPS, in collaboration with the national AMR TWG secretariat, conducted IPC teams' mentoring across three supported facilities in Enugu state from March 27 to 31, 2023. The mentoring visits reviewed the progress of facility IPC teams' program implementation and provided on-the-job support to facility IPC teams. Key outcomes of the visit include enhanced implementation of facility IPC improvement plans by the IPC teams and provision of standardized IPC job aids to support IPC implementation at the facility.

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' consultant completed a report of the systematic review and analysis of essential antibiotics in Nigeria based on WHO AWaRe and shared it with members of the AWaRe TWG committee ahead of the AWaRe categorization workshop. MTaPS organized a preplanning meeting on March 23, 2023, with stakeholders and partners to deliberate on key outcomes and limitations of the review. These include paucity of data, access to antibiotic sensitivity data from sentinel sites, and accurate geographical representation of the data. Stakeholders and partners agreed at the end of the meeting that the categorization workshop would take place from April 13 to 14, 2023, and would adopt the result of the systematic review and analysis of its limitations. However, the AWaRe consultant would be expected to make recommendations to the AWaRe TWG based on the outcome of the review. This is a critical step towards achieving the level 3 benchmark action related to implementing AWaRe categorization.

MTaPS supported the national agency for food, drug administration and control (NAFDAC) to train field officers in the north central zone on GSDP of medicines from March 27 to 29, 2023. The workshop included a component on facility visit where hands-on mentoring and skills were provided to the officers to improve their capacity on GSDP. Adoption of GSDP guarantees that antibiotic quality is maintained

throughout the product's life cycle. This would partially contribute to monitoring antibiotic quality, a level 5 benchmark action on AMS.

Participants at the GSDP inspection training in Keffi, Nigeria. Photo credit: Kabir Abdullahi, MTaPS

Activity 3.5.1: Strengthen the implementation of AMS programs in all MTaPS-supported facilities

MTaPS, in collaboration with AMR TWG secretariat, supported the engagement of two AMS consultants—one each in Enugu and Kebbi states—to support facility AMS programs. The consultants have been onboarded and have commenced engagement with facility AMS teams. Their support will strengthen facility AMS interventions, promote rational antibiotics use, and contribute to strengthening stewardship practices across supported facilities, a level 3 benchmark action.

BEST PRACTICES/LESSONS LEARNED

- Regular capacity-strengthening sessions targeting key areas of IPC serve as a good motivation for IPC teams to implement plans and enhance practices in their facilities.
- Involvement of IPC experts from the private sector brought unique insight and perspectives on the practicality of IPC activities and their implementation and on the conduct of IPC workshops and the review of guidelines for IPC of VHF.
- Sustaining engagement with key national, state, and facility stakeholders is key to overcoming scheduling conflicts due to competing activities of program partners.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
IPC mentoring sessions at MTaPS-supported facilities in Enugu and Kebbi states	April 2023
Support for facility IPC step-down training	April 2023
NAFDAC zonal GSDP workshop (South West Zone [SWZ])	April 2023
Joint monitoring visit to supported facilities in Enugu	April 2023
Engagement of a consultant to support capacity building of M&E officers	May 2023
Engagement of a consultant for HCAI surveillance assessment and protocol development	April 2023
First workshop for AWaRe categorization of antibiotics	April 2023
Engagement of consultants to support the analysis of follow up AMU-PPS	May 2023

Table 20. Quarter 2, FY23, Activity Progress, Nigeria—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1: Review the implementation of 2017–2022 NAP AMR and the development of the new 2023–2028 NAP AMR including cost of new plan. **Activity description:** Consultant to be engaged by the AMRCC with MTaPS support and in collaboration with other bilateral and multilateral partners	5.4	1.1	MTaPS engaged a consultant to support the development of the new 2023–2028 NAP-AMR, which was completed in collaboration with the AMRCC and the tripartite sectors of the AMR TWG secretariat and other bilateral and multilateral agencies. The consultant was onboarded and commenced engagement with stakeholders on the development of the new NAP-AMR.
Activity 2: Continue to strengthen MSC and functionality of the AMR TWG and its subcommittees. **Activity description:** Engagement of a consultant that will support the AMR TWG secretariat to develop KMPs from MTaPS interventions and build the capacity of its members	5.4	1.2	Following the transition of the support for AMS and IPC subcommittee meetings, MTaPS, in collaboration with the AMRCC chair, is finalizing the engagement of a consultant, who would support capacity improvement of members of the national AMR TWG secretariat and develop KMPs from the experiences, lessons, and key outcomes of the interventions supported by MTaPS.
Activity 3: Capacity building for M&E officers in the AMR TWG **Activity description:** This activity will support capacity building of M&E officers in the tripartite sectors for effective monitoring of work plan activities in their various sectors.	5.4	3.5	MTaPS' engagement with the national AMR TWG secretariat is ongoing and the activity will commence as soon as a date is fixed.
Activity 4: Development of AWaRe Categorization of Antibiotics **Activity description:** The AWaRe TWG is expected to lead the categorization of essential antibiotics in Nigeria into the AWaRe categories, based on local evidence of sensitivity and resistance profiles of the antibiotics to disease conditions of public health importance.	5.4	3.1	The MTaPS consultant completed a review of grey literature and local data on the sensitivity of antibiotics to priority public health diseases. MTaPS shared the report with members of the AWaRe TWG, the Department of Food and Drug Services, the federal MOH, and the NCDC in preparation for the categorization workshop planned for the second week in April 2023.
Activity 5: NAFDAC zonal GSDP training **Activity description:** This is a 3-day training workshop for NAFDAC field staff in 2 geopolitical zones of the country on GSDP.	5.4	3.1	MTaPS conducted the first 3-day zonal workshop designed to build the capacity of NAFDAC field staff on GSDP in the North Central Zone. The workshop took place from March 27 to 29, 2023, in Keffi. MTaPS will conduct a second workshop in the SWZ in Quarter 3.
Activity 6: AMS mentor and resource persons **Activity description:** This activity will engage 2 consultants, one each in Enugu and Kebbi, to provide ongoing support to facility AMS teams.	5.4	3.5	MTaPS recruited AMS consultants to support facility AMS programs in Enugu and Kebbi states, and the consultants began their engagement with facility management and AMS teams.

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 7: Assessment of HCAI and development of protocol **Activity description:** Engage 2 consultants to conduct assessment on HCAI in the country and develop protocols for implementation.	5.4	2.1	MTaPS worked with NCDC to complete development of a consultant SOW and identified candidates, and the engagement process is ongoing.
Activity 8: Support the development of national IPC VHF guidelines for safety of health workers in facilities. **Activity description:** This activity will support the development, production of copies, and dissemination of an IPC manual for VHF for health worker safety.	5.4	2.1	Engagement was completed with the NCDC IPC team. The VHF review workshop was conducted and the input from the workshop has been compiled into a draft.
Activity 9: Strengthen capacity of health care providers to implement IPC guidelines using multimodal strategies. **Activity description:** This activity will build the capacity of HCWs to implement IPC guidelines using a multimodal approach to achieve sustainable improvement in the system.	5.4	2.2	The training on multimodal strategies in 7 MTaPS-supported facilities was completed in both Enugu and Kebbi states.
Activity 10: IPC facility mentorship **Activity description:** This activity will support IPC teams in facilities by providing mentoring to team members on the use of the CQI approach.	5.4	2.5	MTaPS conducted the first IPC mentorship activities across 3 supported facilities in Enugu.

N. PHILIPPINES

FIELD SUPPORT (TB AND FP)

OVERVIEW

MTaPS Philippines provides TA and capacity-building support to DOH to institutionalize integrated and effective procurement and supply chain systems for TB, FP, and other health program commodities; establish fully functional PV and product registration systems; and improve pharmaceutical services to ensure patient safety and rational use. MTaPS meets these objectives by identifying and addressing supply chain bottlenecks in the regular provision of TB, FP, and HIV services to improve access.

CUMULATIVE PERFORMANCE TO DATE

MTaPS supported DOH in developing a three-year supply chain strategy; analyzed the draft UHC implementing rules and regulations; facilitated the inclusion of articles to ensure policy support for supply chain reforms; and developed a PSCM road map for UHC law implementation. MTaPS assessed PSCM and PV workforce needs and developed an implementation plan, which has now been used by DOH to hire new staff. MTaPS supported DOH in introducing and rolling out an end-to-end eLMIS to enhance supply chain visibility and efficiency in managing health commodities, including COVID-19 vaccines. MTaPS facilitated users' acceptance and eLMIS TOTs; uploaded essential product and facility master data into the eLMIS; and finalized and disseminated a deployment checklist and inventory capturing template. To date, 34 warehouses have a functioning eLMIS. MTaPS also enhanced the patient safety monitoring system PViMS, including interoperability with the VigiFlow system, and supported DOH and FDA in rolling out and monitoring its use at targeted TB facilities. Since the start of the PViMS roll-out in FY21, MTaPS has been able to reach 197 out of 199 TB facilities. To date, 208 AEs have been reported through PViMS. Additionally, MTaPS supported DOH in analyzing stock information for key tracer TB, FP, and HIV commodities, starting in PY3. Because of the capacity-building activities conducted and tools provided for stock analysis by MTaPS, DOH has since been independent in processing stock data and oriented selected regions on stocks data analysis.

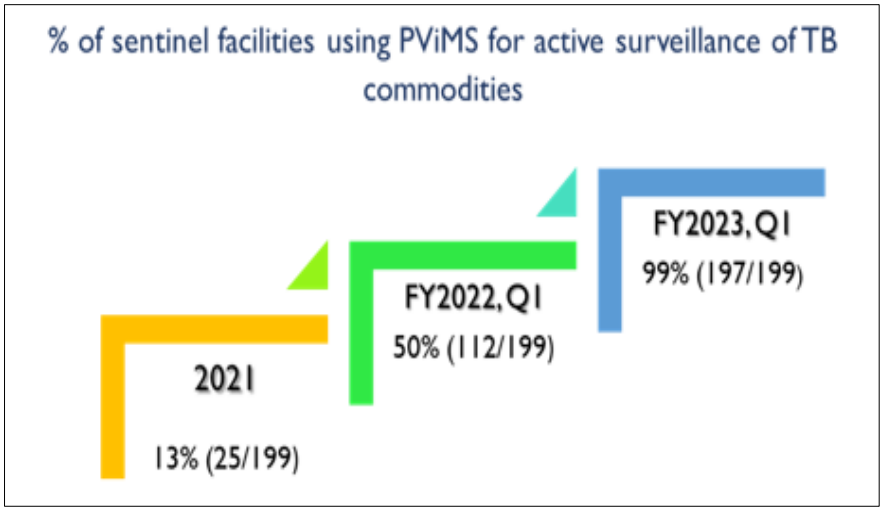


Figure 5: % of sentinel facilities using PViMS for active surveillance of TB commodities.

MTaPS supported DOH and POPCOM in updating and finalizing a warehouse operation manual (WOM) and mentored POPCOM in implementing the manual and associated tool. MTaPS supported the long-term estimations of quantity and budget requirements for TB and FP commodities for 2019-2022. MTaPS has also been working with FDA to update the national PV policy and developed the PV method guideline 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 public health products to make them available for use. MTaPS took part in joint activities with other USAID IPs and supported the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) MOH to develop a PSCM action plan.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.1: Supply chain strategy. As part of developing the national supply chain strategy, MTaPS reached out to a potential consultant to facilitate the strategy development workshop for June 2023.

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

Activities 1.2.1 LTAPS and 1.2.2: 4PL/best practice 3PL. After a local government unit advocacy visit, MTaPS had a thorough discussion with the USAID Mission on the feasibility of the original concept of LTAPs implementation, which was to use the *People that Deliver (PtD)* Strategic Training Executive Program (STEP) as an initial module focusing on developing leadership and change management competence for government stakeholders. Because of the discussion, MTaPS agreed to revise the concept to initially focus on PSCM technical packages, to be later followed by leadership and change management. MTaPS revised the LTAPs concept note and identified five key interventions: 1) advocacy, 2) development of training materials, 3) identification of TOR and incorporating them into the government procurement package, 4) certification of the LTAPs training curriculum, and 5) selection, training, and certification of LTAPs. MTaPS is currently navigating ownership of LTAPs within DOH to secure buy-in and intensify advocacy. MTaPS also explored the possibility of DOH Academy certifying LTAPs after completing assigned trainings.

MTaPS drafted an SOW to engage an international 4PL expert and facilitated the invitation of potential 4PL/best-practice 3PLs and potential LTAPs to the Suppliers Expo organized by DOH. The objective of the expo is to mitigate potential procurement bottlenecks and to expose future potential products and services, which will be procured by DOH. Suppliers will also have a chance to demonstrate their products and services.

Activity 1.5.3: Building capacity of POPCOM. MTaPS finalized the development of POPCOM's WOM training design and drafted training materials in collaboration with POPCOM. MTaPS facilitated the collaboration between POPCOM and SCMS and ensured the observation of the eLMIS roll-out by POPCOM staff. Collaboration and learning by observation will help POPCOM introduce eLMIS in its own five FP commodity warehouses. MTaPS also facilitated standardization and alignment of POPCOM logistics forms with the eLMIS.

Activity 2.1.1: PV e-Learning. MTaPS developed a draft e-Learning module for PV to reach more trainees and improve the capacity of health workers in reporting safety of medicines; this module is expected contribute to longer-term sustainability of the PV system.

Activity 2.2.1: IPC and HCWM capacity building. To support HFs in improving IPC and HCWM for climate risk mitigation (CRM), DOH's Health Facility Development Bureau (HFDB) funded 12 regions to cascade the training within their region by using MTaPS trained IPC and HCWM qualified trainers.

Activity 2.3.1: Gender. MTaPS worked with DOH's HPDPB to develop an e-Learning module on sex and gender in PSCM and pharmaceutical services to train policy makers and service providers on addressing the issues and to adopt gender-sensitive policies for pharmaceutical services. This course is being converted to a self-paced e-Learning module and will be uploaded to the DOH Academy.

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

Activity 1.3.1: eLMIS. In this quarter, MTaPS rolled out eLMIS in 19 warehouses in 12 CHDs which makes successful eLMIS implementation of live transactions to 34 warehouses to date. MTaPS also established a support structure composed of level 1 (L1) and level 2 (L2) mechanisms to manage issues that the implementing sites may encounter. During a March 2023 eLMIS workshop by SCMS, MTaPS facilitated discussion on lessons learned and recommendations for the next phases of implementation. MTaPS also discussed eLMIS scale-up planning to select LGUs and SDPs, including preparatory activities and resources needed that would set the stage for deploying eLMIS to lower levels. MTaPS developed an eLMIS transition plan to guide DOH to sustainably own and implement eLMIS throughout the country. This transition plan was presented during the eLMIS consultative workshop organized by DOH and WHO and attended by various DOH units and CHDs. MTaPS also presented the eLMIS facility module that will be used to capture data from SDPs during the program implementation review of the PD for feedback. The transition timeline and the plans to tap around 300 public health pharmacists on operationalization of eLMIS at SDPs were also discussed.

MTaPS provided continuous support to DOH in the management required to host the eLMIS in collaboration with Philippine Business for Social Progress (PBSP), a principal recipient of funds from the Global Fund. Analyses and efforts were made to make sure that the hosting cost is optimal and falls within the threshold based on the expected utilization. Upon further analysis of the hosting cost forecast, it is anticipated that the cost may increase as the number of users also increases as the scale-up continues. This was communicated to PBSP, and they committed to covering additional costs, if needed, between January 2023 and September 2023. The cost components for hosting were also updated and communicated to DOH as part of the transition and sustainability plan. In addition, MTaPS supported DOH in finalizing the privacy impact assessment (PIA) for eLMIS in collaboration with KMITS and Bileeta in compliance with the country's data privacy act. The PIA is one of the requirements of DOH for the issuance of the official system acceptance. This is a living document that will be maintained by the proponent bureaus in DOH moving forward. MTaPS is also providing technical guidance to the DOH's security requirements by facilitating the completion of the eLMIS' vulnerability assessment and penetration test. MTaPS worked with Bileeta to migrate three years' worth of data from legacy systems to eLMIS, which can be used for historical stock analyses. Implementing eLMIS across all central and

regional warehouses helps ensure compliance with standards and efficiently manage warehouses to avoid delivery rejections or expirations.

Activity 1.3.2: Quarterly stock data analysis. DOH-PD trained public health pharmacists and national drug policy compliance officers on stock data analysis and PMIS in the Cordillera Autonomous Region (30 female, 5 male) and National Capital Region (NCR) (3 female, 2 male). In these trainings, PD uses data analysis training materials and tools developed by MTaPS to build the capacity of the health workforce on stock data analysis for decision making. DOH-PD plans to train more regions on stock data analysis in the succeeding months. MTaPS also supported PD in analyzing and writing the October 2022 to December 2022 stock data report and January 2022 to December 2022 annual stock data report.

Activity1.3.2: CYP. CYP is one of the core indicators that measures the performance of FP service delivery. MTaPS collaborated with IQVIA, DOH, POPCOM, and other USAID IPs to collect the quantities of contraceptive methods sold or distributed to clients through public and private channels to analyze and estimate the CYP provided. In this quarter, MTaPS in partnership with IQVIA, disseminated the result of CYP analysis for July 2021-June 2022. The total national CYP for 2021-2022 has increased by 6% compared to 2020-2021. The dissemination workshop was attended by 25 participants (16 female, 9 male).

Activity 2.4.1: PViMS. Monitoring the safety of patients receiving DR-TB treatment requires standardized and systematic recording, reporting, and analysis. This quarter, seven AEs were reported in PViMS. As of this quarter, PD received 582 reports through the MTaPS-supported PViMS for aDSM. Causality was assessed, and of the 582 reports, 32.47% were possible AEs, 5.84% were probable AEs, 35.73% were not assessable, and 25.94% were rated as unlikely AEs. In addition, PD conducted a refresher training on the use of PViMS in Cordillera Autonomous Region for six (five female, one male) participants. As a result of the refresher training, a pool of PViMS experts was created in different regions.

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

Activity1.4.1: PIES. MTaPS, in collaboration with ReachHealth and MyCure, facilitated a providers engagement workshop with 22 participants from Batangas and 38 participants from Laguna LGUs. The objective was to gather user requirements for configuring the off-the shelf MyCure solution. MTaPS and ReachHealth will further collaborate to engage private pharmacies as potential partners for testing PIES. Results of the workshop were used to configure the PIES that will be implemented in the respective primary care provider networks in seven LGUs in Batangas and Laguna.

Activity 2.2.2: HTA. The establishment of an HTA process for medical devices is intended to inform decision making to select efficient, equitable, and innovative medical devices. MTaPS engaged key stakeholders from DOH's Health Technology Assessment Division (HTAD) and Health Technology Assessment Council (HTAC) in drafting the HTA methodology guidelines for medical devices. MTaPS took the original guide (Philippine HTA Methods Guide) for medicines as a starting point for the outline while focusing on updating the language for HTA of medical devices. Using the developed methodology

guide, MTaPS will work with DOH's HTA Unit in assessing an actual innovative candidate medical device. A first-introductory meeting of the work group took place at the end of this quarter.

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

Activity 1.5.1: Quantification (and procurement). MTaPS completed drafting of the quantification guidelines for health commodities, which provides guidance on choosing methods; collecting, analyzing, and formulating data; and calculating quantities and budget requirements. MTaPS also discussed with DPCB and SCMS on the upcoming quantification training and exercise using the guidelines, previously introduced quantification playbook, and the assignment of quantification officers to own the activity.

Activity 1.5.2: PSCM systems design. MTaPS, in collaboration with SCMS and DPCB, conducted a series of meetings to plan the activities to design inventory control systems at all levels of the supply chain. A TWG responsible for leading the design activity was established with clear roles and responsibilities. On March 3, 2023, MTaPS, in collaboration with SCMS and DBCB, facilitated a virtual consultative and learning session on supply chain system design and shared practical lessons and experiences from other countries. The workshop was attended by 110 participants (76 female, 34 male) from DOH, POPCOM, CHDs, LGUs, and HFs. Further data collection, analysis, and consultation with supply chain stakeholders is planned for the next quarter.

Activity 2.1.1: Product registration. MTaPS monitors the CPR application status of Levoplant. The MAH submitted compliance documents March 23, 2023. Registering Levoplant would increase the choice and availability of contraceptive implants, as currently only one implant is registered.

BEST PRACTICES/LESSONS LEARNED

- Development and roll-out of the eLMIS was a success because sites are well equipped with the IT infrastructure and the WOM, which compels users to standardize their process. However, this is not the case at the lower level of health care systems, such as the LGUs and SDPs. Upon the initial assessment, most SDPs would have challenges in infrastructure, such as internet connectivity and IT hardware. Mitigating strategies should be in place prior to implementation to SDPs. Standardizing and optimizing the supply chain operational processes is critical to efficiently implement eLMIS.
- It will take time for the partner government agency to be ready to take over and maintain the eLMIS platform. Hence, sufficient financial, HR and technical resources must be ready to continue the annual maintenance of the system for which MTaPS is advocating to various stakeholders.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
PViMS refresher training and on-site mentoring on selected PMDT facilities	April–June 2023
eLMIS roll-out to BARMM and POPCOM warehouses, 3PL warehouses	April–June 2023
eLMIS LGU training	May–July 2023
eLMIS governance workshop	May 2023
Facility module eLMIS training and roll-out, L1 and L2 support training	April–June 2023
POPCOM WOM training	May 2023

System design consultative workshop	May 2023
DOH's Suppliers' Expo	May 2023
Medical devices registration dialogue	April 2023

Table 21. Quarter 2, FY23, Activity Progress, Philippines—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
Activity 1.1.1: Support DOH in reviewing results of the implementation of the three-year PSCM strategy (2019-2022) and developing the three-year PSCM strategy (2023-2026)	1.2; 5.1	MTaPS discussed with the leadership of the DOH Procurement and Supply Management team the high-level timeline of implementation for this activity. MTaPS discussed and identified a potential consultant who will be facilitating the workshop. Next quarter, MTaPS will start with the desk review of existing documents to determine the results of the implementation of 2019-2022 PSCM strategy.
Activity 1.2.1: Capacitate a pool of LTAPs to support institutional capacity building of LGUs for PSCM functions	2.1, 2.2, 2.3	MTaPS revised the concept note after visiting three UHC implementation sites. MTaPS reached out to potential LTAPs to attend the DOH Suppliers' Expo and demonstrate their service offerings.
Activity 1.2.2: Engage the government to develop and disseminate a policy on outsourcing logistics services to private sector 4PL or best practice 3PL providers	2.2, 2.3	MTaPS drafted an SOW to engage an international consultant to develop operational policy in engaging best practice 3PLs. MTaPS also invited potential 4PLs/3PLs who were part of the study to the DOH Suppliers' Expo.
Activity 1.3.1: Build capacity of DOH to operationalize and sustain the implementation of eLMIS in the country	3.1, 3.2	MTaPS rolled out eLMIS to 19 more warehouses, bringing the total number of warehouses gone live to 34. eLMIS transition and sustainability plan has also been drafted and presented to government and nongovernment stakeholders.
Activity 1.3.2: Support DOH and selected CHDs in developing mechanisms and practices for regular data collection and analysis for programmatic and PSCM decision making	3.2	MTaPS designed a tool and established a practice of regular stock data collection, analysis, and presentation for key program products. DOH-PD has been cascading the data analysis orientations and tool to the CHDs. DOH-PD has started building the capacity of selected regions on stock data analysis. MTaPS disseminated July 2021 to June 2022 CYP analysis to DOH and other stakeholders.
Activity 1.4.1: Conduct pilot testing on using a digital platform to integrate public and private providers into local health care providers' networks for information exchange, cross-referral, and cost reimbursements for medical products and services to support UHC law implementation	4.1, 3.1	MTaPS and ReachHealth facilitated an engagement workshop with LGUs and service providers on the MyCure tool to gather requirements. A user testing of the tool is planned for the next quarter.
Activity 1.5.1: Support DOH to institutionalize the practice of evidence-based quantification of TB and FP commodities to inform procurement, supply planning, and distribution	5.1	MTaPS completed the quantification guidelines to harmonize and standardize the process of quantification of health commodities at DOH. MTaPS is currently discussing with DOH-DPCB capacity building on quantification for DOH and CHD.
Activity 1.5.2: Support PSCM system design, considering UHC reform for individual and population-based commodities at different levels	5.1	MTaPS facilitated a supply chain system design consultative and learning workshop in coordination with SCMS and DPCB. A series of consultations will be facilitated in the next quarter to determine the inventory strategies at different levels of the system.
Activity 1.5.3: Build capacity of POPCOM to support supply chain management of FP commodities	5.1	POPCOM WOM training materials are drafted and capacity building on WOM is planned for May 2023. POPCOM participated and observed the eLMIS roll-out in different regional warehouses with the plan to introduce its own central and five regional FP commodity warehouses.
Activity 2.1.1: Build capacity of health workers to support PV and regulatory services at national and HF levels	5.2	FDA provided clearance on the PV e-Learning contents that will be uploaded to the DOH Academy.

Activity	MTaPS Objective(s)	Activity Progress
Activity 2.2.1: Support HFs to improve practices on IPC and HCWM for CRM	5.3	MTaPS worked with HFDB to develop training materials on the new standards on IPC and HCWM. MTaPS is working with DOH to monitor the training roll-out action plan of the regions. HFDB funded 12 regions to cascade the training within their region, engaging MTaPS-trained IPC and HCWM qualified trainers.
Activity 2.2.2: Strengthen capacity to conduct and use HTAs to support institutionalizing transparent and evidence-based decision making	4.2, 4.3	MTaPS and DOH HTA Unit, DOH Medical Device Unit, and HTA Council agree on the scope and next steps of developing the HTA methods guide, essential medical device price reference index, and essential medical device price list. MTaPS will further discuss the TA needed by DOH-PD on establishing the system.
Activity 2.3.1: Support DOH in implementing standardized aDSM reporting and practice of causality assessment	5.3	MTaPS is supporting the DOH-PD in implementing standardized aDSM reporting and the practice of causality assessment through PViMS as needed. PD received 569 ADR reports through the MTaPS- supported PViMS.
Activity 3.1: Collaborate with other USAID IPs to build the capacity of UHC IS/LGU on PSCM and PV	5.1	MTaPS is actively taking part in UHC implementation with other USAID IPs, focusing on supply chain system strengthening and eLMIS.
Activity 3.2: Support gender equality and women's empowerment in PSS	1.3, 2.1, 5.2	The alpha version of the gender e-Learning module is submitted to DOH and gender experts for review. MTaPS presented a poster on gender during a US Embassy event on sex and gender equity.

PEPFAR (HIV/AIDS)

OVERVIEW

In line with MTaPS' global objectives, MTaPS Philippines aims to establish and institutionalize an integrated health supply chain and pharmaceutical management system to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medicines, vaccines, other health technologies, and pharmaceutical services. Toward this goal, MTaPS Philippines provides appropriate TA and capacity-building support to DOH to:

- Institutionalize an integrated and effective procurement and supply chain system for TB, FP, and other health program commodities
- Establish a fully functional PV system and improve pharmaceutical services to ensure patient safety and rational use of health commodities

MTaPS Philippines aims to accelerate progress to control the HIV/AIDS epidemic by strengthening the pharmaceutical system to ensure uninterrupted access to and safe use of HIV/AIDS commodities.

CUMULATIVE PERFORMANCE TO DATE

MTaPS facilitated the successful completion of HTA requirements of two ARVs, namely, tenofovir 300 mg + lamivudine 300 mg + dolutegravir 50 mg (TLD) fixed dose and ARVs for pre-exposure prophylaxis (PrEP) emtricitabine 200 mg + tenofovir 300 mg fixed dose. The two products are already included in the Philippines National Formulary (PNF) as of September 2021 and January 2022, respectively. MTaPS facilitated the completion of a USAID donation of ARVs for PrEP to the Government of the Philippines. MTaPS coordinated with the Philippines Bureau of Customs and supported coordination of necessary FDA clearances for the arrival of ARVs for PrEP and viral load cartridges donated by USAID. MTaPS supported DPCB, Epidemiology Bureau, which is responsible for collecting, analyzing, and disseminating HIV-related data, and other stakeholders to complete the three-year (2022-2025) quantification of ARVs for adult first-line and PrEP, HIV test kits, and viral load cartridges. The results of the quantification activity guide immediate and future solicitation and allocation of funds and procurement. In addition, MTaPS used the results of the quantification exercise to develop the PSCM support plan for the TLD transition.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

STRATEGIC OBJECTIVE 1: STRENGTHEN PSCM OF HIV/AIDS COMMODITIES

Activity 1.1: Procurement. MTaPS assisted in drafting the in-kind agreement and coordinating the requirements for the clearance of the second tranche of 2,300 USAID-donated kits of viral load cartridges. These kits arrived in the Philippines on January 31, 2023. Also, MTaPS drafted a request letter of inspection and facilitated submission to DOH Supply Chain Management Services. The approval of the inspection and acceptance report gave way to release of the property transfer report to the HIV control program so that it could be distributed. Distribution of the kits to facilities started in February 2023. Additionally, MTaPS confirmed with USAID GHSC-PSM that the third tranche (2,115 kits) and the remaining 1,234 kits from the second tranche will be shipped together and is estimated to arrive in June 2023. Continuous availability of viral load cartridges is critical to monitoring the effectiveness of

treatments. Additionally, MTaPS mapped out the registered HIV test kit suppliers and shared it with DOH to help in the market scoping.

MTaPS also coordinated with DOH Procurement Services (PS) on the possibility of procuring HIV/AIDS commodities through the Global Fund (GF) pooled procurement mechanism using the online procurement platform called Wambo®. This mechanism is selected for those HIV commodities that are low in quantity and are not attractive to local suppliers. In line with this, DPCB, in coordinating with PS, is working with DOH's Legal Service Division to justify procurement of those HIV commodities through Wambo.

To mitigate procurement bottlenecks due to gaps between procuring entities and suppliers, MTaPS is supporting the DOH-PS in organizing the Suppliers' Expo, where procurement issues will be discussed further. MTaPS reached out to multiple suppliers and service providers and disseminated a survey to ascertain their willingness to join. Also, a preorientation meeting was conducted on March 24, 2023, to brief the suppliers on the details of the expo.

MTaPS will identify potential supply chain service providers and advocate for preparation to participate in the LTAPs scheme in supporting various supply chain initiatives in the country. Among the service providers are IT support providers for eLMIS and 3PL organizations.

Activity 1.2: Distribution and inventory management system. MTaPS, in collaboration with DOH and USAID EpiC, conducted several consultation meetings with CHD program managers and HIV/AIDS facilities. MTaPS prepared presentations for the standardization of process, flow, and timelines of events for the supply chain management of HIV/AIDS commodities. MTaPS then facilitated several capacity-building workshops on supply chain and PV. A total of 80 personnel took part in the training from 55 PEPFAR-supported sites. Participants gained skills and knowledge for capture, analysis, and reporting stock data to avoid stock-outs and overstocks. Participants are also capacitated on identifying and reporting AEs. In addition, HIV test kits and dolutegravir 10-mg tablets were needed in the HIV/AIDS facilities and were already delivered to the central warehouse last quarter of 2022 but were not yet distributed to regional warehouses as of January 2023; therefore, MTaPS closely monitored and followed up with SCMS on the distribution of these commodities to the regional warehouses. These commodities were distributed to the regional warehouses February and March 2023.

BEST PRACTICES/LESSONS LEARNED

- Standardizing the HIV commodities supply chain processes and practices and communicating changes through capacity building are critical to uniformly implementing standards and improving availability of commodities.
- DOH has been having difficulty procuring ARVs for pediatrics because of the minimum order quantity required by the supplier. Therefore, alternative mechanisms, such as the GF PPM, should be explored to ensure continuous availability of these life-saving commodities.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Findings dissemination of supportive supervision to CHD NCR, Calabarzon, and Central Luzon	April 2023
Arrival of third tranche of USAID-donated viral load cartridges	June 2023

Table 22. Quarter 2, FY23, Activity Progress, Philippines—PEPFAR

Activity	MTaPS Objective(s)	PEPFAR Objective(s)	Activity Progress
Activity 1.1: Support DOH in using appropriate procurement mechanisms for addressing procurement bottlenecks for HIV/AIDS commodities	5.1	Strengthen PSCM of HIV/AIDS commodities	Supported DOH in facilitating the Supplier's Expo to mitigate procurement bottlenecks; also facilitated the clearance and distribution of viral load kits and identified HIV test kit suppliers for DOH market analysis scoping.
Activity 1.2: Support DOH in strengthening the distribution and inventory management system for HIV/AIDS commodities	5.1		Facilitated capacity-building workshops on supply chain and PV of HIV commodities

CN220 (HIV/AIDS)

OVERVIEW

In line with MTaPS' global objectives, MTaPS Philippines aims to establish and institutionalize an integrated health supply chain and pharmaceutical management system to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medicines, vaccines, other health technologies, and pharmaceutical services. Toward this goal, MTaPS Philippines provides TA and capacity building support to the DOH to:

- Institutionalize an integrated and effective procurement and supply chain system for TB, FP, and other health program commodities
- Establish a fully functional PV system and improve pharmaceutical services to ensure patient safety and rational use of health commodities

For the CN220-funded HIV/AIDS activities, MTaPS Philippines aims to accelerate progress to control the HIV/AIDS epidemic by strengthening the pharmaceutical system to ensure uninterrupted access to and safe use of HIV/AIDS commodities.

CUMULATIVE PERFORMANCE TO DATE

MTaPS mapped the flow of HIV commodities from the DOH Central Office to CHDs to LGUs and finally to HFs. MTaPS also mapped the differentiated service delivery focused on the multi-month drug dispensing practices in selected HIV care sites with emphasis on supply chain analysis. MTaPS, in collaboration with FDA, delivered a webinar on PV for HIV/AIDS care facilities in three USAID-supported regions (NCR, 3, and 4a). MTaPS supported DOH and FDA in orienting community-based organizations (CBOs) on PV reporting using the FDA's suspected adverse reaction form. MTaPS supported DOH in developing the IPC checklist tool for HFs, such as HIV/AIDS outpatient care facilities. Using this IPC checklist tool, MTaPS conducted the baseline and post-assessments of IPC practices in 30 HIV outpatient care facilities CBOs. MTaPS also assessed the current practices of these 30 CBOs on PV recording and reporting. MTaPS presented the baseline.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

Service Delivery of HIV/AIDS Commodities

With the standardization of the process, flow, and timelines for the supply chain management of HIV/AIDS commodities and capacity building of HIV/AIDS facilities, MTaPS conducted supportive supervision for 30 facilities under the CHDs of Calabarzon and NCR. MTaPS, in coordination with DOH, adapted the PSCM and Pharmacovigilance Monitoring Tool that was used in the supportive supervision. The visit focused on PEPFAR sites to support and determine if HIV/AIDS facilities were practicing the knowledge and skills gained from the capacity-building activities conducted previously; to review standardized forms, processes, and timelines introduced in the supply chain management and PV practices of HIV/AIDS facilities. Most of the facilities are now using stock cards, filing their property transfer report, and uploading their monthly inventory report through the prescribed Google drive introduced by the DOH Central Office. During the supportive supervision, stock analysis was also

conducted. As a result, all those commodities with less than three months of stocks and more than six months of stock were communicated and coordinated with the CHD for appropriate action.

PV of HIV/AIDS Commodities

To support DOH in safety monitoring of TLD and ARVs for PrEP, through targeted spontaneous reporting (TSR), MTaPS, in collaboration with FDA, trained 53 PEPFAR facilities on the TSR SOP. This quarter, two AEs were reported to FDA for patients using TLD and ARVs for PrEP.

BEST PRACTICES/LESSONS LEARNED

- Conducting supportive supervision and mentorship after a capacity-building workshop facilitates implementation of standard practices at the facility level

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity & Description	Date
PSCM and PV supportive supervision in Central Luzon	April–May 2023

Table 23. Quarter 2, FY23, Activity Progress, Philippines—CN220

Activity	MTaPS Objective(s)	CN220 Objective(s)	Activity Progress
Support DOH and HIV CBOs in developing and implementing a PSCM action plan for differentiated service delivery, including community dispensing of ARVs to people living with HIV	1.2, 5.1	Address acute needs driven by COVID-19, mitigate household shocks, and build resilience	MTaPS, in coordination with USAID EpiC, conducted a site visit to PEPFAR sites to understand SCM practices, system, process, and reporting forms in the social hygiene clinics. MTaPS will visit and mentor more sites providing HIV/AIDS care services on the standardized SCM process.
Support DOH in drug safety monitoring of TLD and PrEP by implementing the TSR mechanism	2.4	Bolster economies and other critical systems under stress due to COVID-19 to prevent backsliding and enable recovery	MTaPS continued supporting the finalization and operationalization of TSR for TLD and PrEP. Visits were conducted in selected facilities to understand current PV practices and mentor HFs in the PV process.

O. RWANDA

FIELD SUPPORT ACTIVITIES

OVERVIEW

The goal of MTaPS in Rwanda is to assist the country 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 both the public and private pharmaceutical sectors by continuing support for 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.

MTaPS' strategic approach to strengthening the Rwanda FDA is to build its institutional capacity to address key areas of weakness and gaps identified in the WHO GBT assessments conducted in November 2018, September 2021, and December 2022 and by the Tanzania Medical Devices and Drugs Authority in April 2022. The approach also involves implementing recommendations in related institutional development plans to facilitate the Rwanda FDA to achieve WHO GBT ML3. MTaPS' support includes strengthening the established PV system for both active and spontaneous safety surveillance, enhancing the capacity of the FDA's regulatory workforce for medical product registration, and updating the FDA's regulatory information management system. MTaPS supports the MOH in strengthening MTCs at HFs to bolster those facilities' performance in pharmaceutical management, including for MNCH medicines.

CUMULATIVE PERFORMANCE TO DATE

Over the past four 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).

Through support to the Rwanda FDA, a four-year strategic plan (2021–2024), a costed five-year business plan (2021–2026), five regulations, and other pharmaceutical-sector regulatory documents (e.g., guidelines, manuals, and SOPs), were developed. In PY4, MTaPS supported an initial medicines dossier assessment workshop retreat, which reduced the backlog of pending medicine dossier applications at the Rwanda FDA, with 310 of the then-735 unassessed applications addressed in the workshop. As part of implementation of a QMS at the Rwanda FDA in accordance with ISO 9001:2015 requirements, MTaPS in May 2021 supported the development of a quality manual and corresponding SOPs, which were subsequently approved by the Rwanda FDA's board. In June 2021, MTaPS supported an internal audit training of 27 Rwanda FDA staff (17 male, 10 female). MTaPS also supported the Rwanda FDA in getting ready for the December 2022 WHO GBT assessment, including preparing relevant documentation and assessing progress made, and participated in the Authority's WHO formal benchmarking assessment in December 2022 that evaluated the institution's progress towards ML3. MTaPS has contributed to strengthening five pharmaceutical regulatory functions—the national

regulatory system; vigilance; product registration and marketing authorization; licensing establishments; and regulatory inspection.

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 March 2023, 1,539 AEFIs (597 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 feedback to clients, patients, and health facilities in a timely manner and use the E2B standard format to report to the WHO Uppsala Monitoring Center (UMC) the validated data, thereby increasing data quality.

MTaPS has been providing technical assistance for customization and implementation of IRIMS to increase the efficiency of the Rwanda FDA's regulatory functions. IRIMS was customized to the Authority's requirements and deployed on a temporary server at the Rwanda FDA. Master data migration is complete, while historical data migration stands at 85% for all Rwanda FDA divisions, apart from food product registration and the pharmaceutical database of pending, approved, or licensed applications. During PY5 Q1, MTaPS continued to work with the Rwanda FDA and the software development consultant to support IRIMS deployment and implementation, including training stakeholders and additional staff as users. By the end of Q1, 88 staff had received in-person training on the management and use of IRIMS. In addition, MTaPS worked with the Rwanda FDA to secure a contract with the Rwanda Information Society Authority (RISA) for final hosting of IRIMS in the country's National Data Center.

In addressing the human resources capacity gap, MTaPS supported training of health care providers in different areas of pharmaceutical management with 815 Rwanda FDA staff and other health care providers trained in various areas, including 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 online e-Learning courses in MER and PV, which are hosted on the Rwanda FDA servers. Of 78 enrolled trainees, 17 have completed the courses. In June 2021, during the annual NPC conference, MTaPS supported the MOH and the Rwanda FDA in disseminating information on the pharmaceutical service accreditation standards and medicines safety to 440 participants (295 male, 145 female). MTaPS supported the development of an MTC operational manual to improve pharmaceutical management in HFs via MTCs. The MTC manual was validated by staff from 29 DHs, 5 referral hospitals, and 5 university teaching hospitals out of the 47 facilities involved in an earlier MTC functionality assessment survey. The MTC manual, alongside other developed tools and SOPs, will guide HCWs on establishing MTCs in HFs and in monitoring medicines, including for MNCH, and on AE reporting. In addition, MTaPS supported the MOH to conduct orientation of 313 health care providers (200 male and 113 female) on the MTC operational manual and SOPs.

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, guidelines on regulating medical gases were developed to ensure the availability of quality oxygen for the management of hypoxic newborns and children as well as cases of COVID-19, where medical oxygen is an essential part of treatment. MTaPS supported the RBC in assessing the supply, availability, and use of oxygen, respiratory equipment, and medical devices. MTaPS also supported the development of the draft TOR for a proposed oxygen and respiratory care technical working group aiming to improve access to, and appropriate use of, oxygen through improved coordination among partners and stakeholders. MTaPS also supported the MOH in a rapid assessment of the use of medicines for postpartum hemorrhage and eclampsia, and, as a result, supported the development of an implementation manual for cold storage of oxytocin in Rwanda to guide health care workers in health centers and hospitals on procedures for its correct storage and management.

To strengthen PV, MTaPS supported the development of a costed multi-year national PV plan to guide the implementation of medical safety monitoring activities. Nineteen participants from the National Pharmacovigilance Advisory Committee and the Rwanda FDA were trained on PV. To conduct active surveillance of DTG-based ART regimens to determine their safety, MTaPS, working with MOH, RBC, and Rwanda FDA, developed a study protocol that was approved by the Rwanda National Ethics Committee in December 2021. Patient enrollment at 20 HFs ended in May 2022, with 1,437 participants enrolled. Patient follow-up is ongoing; so far, 1,325 patients have had follow-up visits (up to 9 follow ups per patient) with a total of 9 mild AEs, such as skin rashes and dry cough, identified. The one-year enrolled patient follow-up will conclude by the end of May 2023.

MTaPS supported the RBC in conducting a situational analysis of ARV multi-month dispensing (MMD) and pack size, which facilitated the roll-out of 6MMD 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 bi-monthly dispensing. The study found that MMD is feasible and satisfies different categories of people living with HIV/AIDS, including breastfeeding mothers. Implementing MMD will not only reduce workload at the HF level but also improve the quality of HIV care.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

MTaPS supported the Rwanda FDA to conduct a second medicines dossier assessment retreat that addressed 258 of 300 then-unassessed applications. This reduced the Authority's backlog of pending medicine dossier applications and helped address the gap for indicator MA04.01 noted in the December 2022 WHO GBT assessment.

IRIMS was integrated with the *irembo* payment gateway, which allows local and international users to make payments through a flexible, secure multichannel mechanism, and further enhanced the Rwanda FDA's capacity to automate medical product regulation processes for increased efficiency as it aims to achieve WHO GBT ML 3.

OBJECTIVE 1: GOVERNMENT AND HEALTH WORKER CAPACITY TO MANAGE PHARMACEUTICAL SYSTEMS STRENGTHENED

Activity 1.1.1: Strengthen the medical products regulatory framework of the Rwanda FDA, including that for medicines used in HIV/AIDS, MNCH, and FP/RH programs

During Q2, a second medicines dossier assessment retreat was held, which reduced the backlog of pending medicine dossier applications. Rwanda FDA submitted 300 unassessed applications to the workshop, where 292 underwent first screening. Of these, 258 completed the first assessment and 257 completed the second assessment; however, only 70 applications were recommended for peer review, while the remaining 187 are pending, with queries to be addressed by the applicants.

Among the applications evaluated at the second assessment, 41.3% (107 of 257) were assessed using the reliance approach, as they were either products on the Rwanda FDA's authorized list or those already registered by the Tanzania Medicines and Medical Devices Authority and Ghana FDA. Evaluation was done according to the published Rwanda FDA guidelines for reliance and abridged procedures. This activity helps to address the gap for indicator MA04.01 noted in the December 2022 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

During Q2, MTaPS continued to support the Rwanda FDA in the implementation of IRIMS to digitalize its core functions. With MTaPS support, three servers to host IRIMS in the production environment were delivered, configured, and deployed at the National Data Center. IRIMS has been implemented using the classic four-tier high-availability architecture with load balancing. Tier 1 consists of a web tier made of load balancers, Tier 2 is made of stateless application servers, Tier 3 is the database layer, while Tier 4 is a document management layer. The benefit of this architecture is that it separates stateless components from state complete components, which enables optimized performance, increased system security, simple system management, and flexible deployment of IRIMS. For the addition of a flexible, secure multichannel payment mechanism for local and international users, integration of IRIMS with the *irembo* payment gateway to allow local and international payments was completed. The contract between the Rwanda FDA and *irembo* has been signed.

Moreover, 46 Rwanda FDA staff (26 male, 20 female) who will also act as IRIMS champions within the Authority have been trained on all 8 core modules of IRIMS. MTaPS supported the Rwanda FDA to conduct hands-on training on the use of the IRIMS portal for its external stakeholders, namely 120 importers and exporters of regulated products. This covered the processes of submitting application requests for import/export authorization. Rwanda FDA has set April 15, 2023, as the official go-live date for IRIMS.

BEST PRACTICES/LESSONS LEARNED

- Using the reliance approach and abridged procedures to evaluate technical medical product registration application files has increased the number of evaluated medical products. The reliance approach enables a quicker registration process, thereby improving access to safe, effective, and quality-assured medical products.
- With the automation of the regulatory processes, Rwanda FDA staff can work more efficiently and hence improve service delivery to Rwanda FDA customers.
- Engaging external stakeholders allowed the Rwanda FDA to fine-tune IRIMS to respond to the needs of its customers.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
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 ▪ Strengthen the Rwanda FDA's capacity to control imports and exports via a workshop to develop and review the Authority's regulatory framework. Conduct orientation of Rwanda FDA staff on guidance developed for control of import and export of pharmaceutical products. ▪ Provide technical assistance to undertake the mid-term evaluation of the Rwanda FDA's four-year strategic plan (2021–2024). ▪ Train Rwanda FDA staff on strategic planning and monitoring.	April–June 2023
Activity 2.1.1: Build capacity on the use and management of IRIMS in automation of medical product regulation processes ▪ Support implementation of IRIMS application programming interfaces (APIs), documentation, and plug-ins to interface with other existing national systems. ▪ Conduct second training of selected Rwanda FDA staff as master trainers in IRIMS system operations, including to external customers. Continue to build capacity of Rwanda FDA staff and external users on effective application usage and implementation support of IRIMS, including training in maintenance in terms of architecture design and technologies. ▪ Develop management and regulatory tools, system and operational manuals, and specifications for a QMS module. ▪ Support the Authority to develop a memorandum of understanding with RISA and the National Data Center to ensure the availability of a reliable hosting environment for IRIMS. Facilitate the creation of a transition plan for IRIMS to the FDA, including capacity transfer, a localization strategy, and the establishment of a service-level agreement to sustain IRIMS beyond the MTaPS Program.	April–June 2023
Activity 3.2.2: Continue to strengthen pharmacovigilance and safety monitoring for regulated medicines, including ARVs, through enhancing the existing spontaneous reporting system ▪ Support updating of PViMS tool to cater to emerging Rwanda FDA requirements in spontaneous reporting, including updates to the ADR reporting form and active surveillance forms. ▪ Interface the PViMS and IRIMS datasets by integrating the relevant common key data elements in reports on a dashboard that reports on selected key performance indicators (KPIs). ▪ Support a public awareness campaign on AEFI /AE detection and prevention. ▪ Review and print the pharmacovigilance tools, including the patient alert card and IEC materials used in the health facilities.	April–June 2023

Table 24. Quarter 2, FY23, Activity Progress, Rwanda—FIELD SUPPORT

Activity	MTaPS Objective(s)	Activity Progress
FS 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. **Activity Description:** Provide technical assistance to undertake the mid-term evaluation of Rwanda FDA's four-year strategic plan. Develop/review the Authority's regulatory framework on control of import/export of pharmaceutical products and conduct orientation for Rwanda FDA personnel.	1.2	In preparation for the mid-term evaluation of the strategic plan, MTaPS received proposals from firms. The evaluation of the proposals and the selection of a firm has started. A technical brief to demonstrate process of strengthening the regulatory system at Rwanda FDA is under development.
Activity 2.1.1: Build capacity on the use and management of IRIMS in automation of medical product regulation processes **Activity Description:** Work with the Rwanda FDA and the software development consultant to support the deployment and implementation of IRIMS and train stakeholders and additional staff as users. Undertake capacity building of Rwanda FDA staff, including the Authority's Information and Communications Technology (ICT) staff, as well as external users, on effective application usage and implementation support of IRIMS. Support implementation of IRIMS APIs, documentation, and plug-ins to interface with other national systems. Develop a memorandum of understanding with RISA and the National Data Center for a reliable hosting environment for IRIMS. Provision of system and operational manuals	3.1	MTaPS is working with the Rwanda FDA ICT team to conduct training of external and internal users on the use of IRIMS. In Q2, 46 Rwanda FDA staff were trained on IRIMS core modules and will act as IRIMS champions. 120 external users (importers and exporters) were also trained. IRIMS integration with the *irembo* payment gateway to allow local and international payments was completed, and a contract between Rwanda FDA and *irembo* signed.
Y4 Activity 3.2.1(a): Support the ongoing implementation of the active surveillance system for DTG-based regimens at the 20 selected hospitals and disseminate findings and recommendations of the study **Activity Description:** Support the ongoing implementation of the active surveillance system for DTG-based regimens at the 20 study sites; disseminate findings and recommendations of the study.	5.3	MTaPS continued to support the RBC and the Rwanda FDA in supportive supervisory visits to the 20 selected health facilities for active surveillance of DTG-based regimens. For the current enrolled 1,437 participants, 1,325 participants have undertaken up to 9 follow-up visits across the 20 study sites. Only 9 mild AEs have been reported. The one-year enrolled patient follow-up will conclude by the end of May 2023.
Y2 Activity 3.1.4: Support management of medicines at the community level **Activity Description:** Support the MOH to develop mini lessons for health center staff to give to the community health workers in their regular meetings at the health centers.	5.2	MTaPS supported RBC on improving medicines management at the community level by engaging a consultant to review existing medicines management documents and to develop mini-lessons and job aids. These will help health care workers to better manage basic medicines and supplies in the community. The draft documents have been submitted to RBC for review.

Activity 3.2.2: Continue to strengthen pharmacovigilance and safety monitoring for regulated medicines, including ARVs, by enhancing the existing spontaneous reporting system **Activity description:** Support updating of PViMS tool to cater to emerging Rwanda FDA requirements in spontaneous reporting, including updates to the ADR reporting form and active surveillance forms. Interface the PViMS and IRIMS datasets by integrating the relevant common key data elements in reports on a dashboard that reports on selected KPIs. Support a public awareness campaign on AEFI/AE detection and prevention. Review and print the pharmacovigilance tools, including the patient alert card and IEC materials used in the health facilities. Finalize the draft communication strategy of the Rwanda FDA for AE awareness and other regulatory functions, with an implementation plan.	5.3	MTaPS has contracted the developer Columbus Consulting to update PViMS and interface it with IRIMS. A preliminary meeting with the developer will be held to determine how to undertake the planned activities. MTaPS has asked the Rwanda FDA to provide the concept note for a public awareness campaign on AEFI /AE detection and prevention. This will enable MTaPS to proceed with preparations to undertake the TV/radio talk shows. The draft communication strategy is under technical review.

P. SENEGAL

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of the USAID MTaPS Program/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. MTaPS/Senegal 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. In FY22 and FY23, program implementation has focused on solving immediate problems and demonstrating results at an additional five hospitals.

CUMULATIVE PERFORMANCE TO DATE

During the previous year, MTaPS supported the revitalization of the AMR technical group in the OH platform and its functionality under the aegis of the OH secretariat. MTaPS facilitated the development of annual and quarterly action plans and their evaluations through multisectoral workshops and meetings. MTaPS also supported the implementation of a list of activities for World Antimicrobial Awareness Week and the development of the multisectoral health security action plan by following the electronic State Parties Self-Assessment Annual Reporting Tool in preparation for submission for approval by the OH High Council Steering Committee.

In addition to supporting the OH AMR TWG, MTaPS supported the implementation of an IPC program at both national and facility levels.

Prior to FY23, MTaPS worked with the DQSHH to implement the revitalization process for ICCs in 13 hospitals using WHO's IPCAF tool. MTaPS supported the DQSHH in using the lessons learned from the revitalization of ICCs during the past several years in 3 pilot hospital ICCs (i.e., Hôpital Général Idrissa Pouye level 3 hospital in Dakar, private level 2 Hôpital Saint Jean de Dieu in Thiès, and level 1 Hôpital Abdoul Aziz Sy in Tivaouane) revitalized during FY19–20 to strengthen the functioning of the ICCs of 5 additional hospitals in FY21 (i.e., level 1 hospital of Mbour, level 2 of Fatick, level 2 of Kaffrine, level 3 of Aristide Le Dantec of Dakar, and level 3 of Touba [Matlaboul Fawzayni]).[10] In FY22, MTaPS worked with the DQSHH in selecting 5 additional priority hospitals (i.e., level 3 Abass Ndao Hospital of Dakar, level

[10] Aristide Le Dantec Hospital of Dakar was officially closed on August 15, 2022, for its reconstruction. Prior to its closure, the hospital improved its IPC capacity from basic level (323/800 in March 2021) to advanced level (693/800) in October 2021.

2 hospital of Kédougou, level 2 hospital of Kaolack, level 3 Fann Hospital of Dakar, and level 2 hospital of Sédhiou) in which the revitalization process for ICCs has been implemented using the assessment tools (including IPCAF), the updated IPC guidelines, and the lessons learned from the revitalization process of the 8 MTaPS-supported hospitals of FY20 and FY21.

To strengthen governance for AMS, within the past several years of the program, MTaPS provided support to the NCAT to organize several technical meetings to update the antibiotic policy and STGs that were developed in 2010 but never implemented. MTaPS used the opportunity to provide a technical orientation to NCAT's four TWGs (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, which NCAT has since adopted. MTaPS supported the NCAT to organize workshops to develop the training modules on the approved antibiotic STGs. By the end of December 2022, a small group from the workshop developed the remaining modules on health care–associated infections and antibiotic prophylaxis.

QUARTER 2 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Strengthen the functionality of the AMR TWG by supporting effective coordination through regular meetings

MTaPS, under the aegis of the OH secretariat, continued working with the multisectoral AMR technical committee to develop the draft plan of the 2023–2027 NAP-AMR and define the strategic objectives through ad hoc virtual meetings.

From February 20–24, 2023, MTaPS supported the AMR TWG to finalize and share the following technical documents:

- The guidelines for rational use of antimicrobials in the animal sector in Senegal
- The list of critically important antimicrobial agents
- The guidelines for rational use of antimicrobials in the human health sector in Senegal
- The predominant standards and principles that define good governance for the use of antibiotics at the national level, and the obstacles to better use of antibiotics
- The validated studies carried out within the framework of the Fleming Fund project
- The review and recommendations of the strategy for improving social and behavior change communication (SBCC) on AMR

From February 27 to March 3, MTaPS actively participated in a WHO- and MOH-led workshop to assess the country's progress on IHR indicators using the e-SPAR tool. Once WHO finishes its review of the documents assessment results and the action plan shared at the end of the workshop, the MOH will share the final versions of the assessment and the IHR 2023 work plan.

On March 9, 2023, MTaPS provided technical support to the OH AMR multisectoral TWG to validate the TORs, the road map, and the composition of the multisectoral technical committee for the development of the new national action plan for health security. A workshop is planned for April 6 with

the AMR TWG to validate the road map and the committee in charge of elaborating the first draft of the NAP-AMR 2023–2027.

In preparation for the Senegal JEE of the IHR planned for July 17–21, 2023, MTaPS participated in the WHO- and MOH-led workshop from March 21 to 24, 2023, to train focal points of all sector ministries on the latest edition of the JEE tool and to confirm the road map's critical activities before the national IHR self-evaluation workshop, which will take place April 25–28, 2023.

RESULT AREA 2: IPC

Activity 2.5.3: Support the revitalization of ICCs in selected district and regional hospitals.

MTaPS continued to work with the DQSHH to support target hospitals implementing their IPC improvement action plans. Thus, from January 3 to 5, 2023, trainers from the Abass Ndao level 3 hospital in Dakar trained 90 additional health care providers in IPC components, including the WHO multimodal strategy.

From January to February 2023, MTaPS supported four hospitals to conduct a follow-up assessment of their IPC capacity. The table below summarizes the results of the assessment:

Table 25. Follow-up assessment result with WHO IPCAF

Health facilities	2021	2023
Level 3 HOGIP of Dakar	552.5 Intermediate level	647.5 Advanced level
Level 3 Fann Hospital of Dakar	307.5 Basic level	450 Intermediate level
Level 3 Abass Ndao Hospital of Dakar	232.5 Basic level	500 Intermediate level
Level 2 Saint Jean de Dieu Hospital of Thiès	645 Advanced level	671 Advanced level

Activity 2.5.4: Support the development, dissemination, and implementation of the National IPC Strategic Plan

During this quarter, MTaPS continued working and following up with the General Directorate of Public Health (GDPH) and the DQSHH to plan and prepare for the institutional validation of the finalized IPC NSP and the national IPC policy document with all IPC stakeholders. The validation workshop is tentatively scheduled for April 27, 2023.

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

Activity 3.1.1: Support the implementation of capacity-building interventions to increase compliance with antibiotic STGs

On January 17, MTaPS delivered 500 hard copies of the validated National Antibiotic STGs. The dissemination plan adopted by the committee includes all directions of the ministry of Health, the AMR multisectoral TWG, and the trainees. The NCAT requested that MTaPS support the development of a mobile phone application version of the STGs.

In January 2023, MTaPS also supported the finalization of 35 training modules of the national antibiotic standard guidelines with the NCAT. After a 3-day workshop to elaborate the training modules in December, MTaPS followed up with the DQSHH and the NCAT for the finalization of the training modules, specifically with the modules regarding antibiotic prophylaxis and antibiotic treatment for health care–associated infections.

On February 28, 2023, MTaPS supported the NCAT to organize a meeting to develop the training plan on modules of the approved antibiotic STGs. It is subsequently planned to train a national pool of 20 trainers who will scale up the training to prescribers in the different medical regions and districts. The training plan was validated and MTaPS will support the first training of the national pool of trainers planned from April 24 to 29, 2023. MTaPS will then support the trainers to train the hospitals' IPC committees.

BEST PRACTICES/LESSONS LEARNED

- Culture of change has proven crucial for building sustainability of ICC interventions. Selected hospitals are implementing a multimodal strategic approach to support the revitalization of their ICC. This approach is based on five elements implemented in an integrated way to guide action and provide a clear focus: system of change; education/training; monitoring/evaluations; reminders/communication; and culture of change. Practice has demonstrated that culture of change is a particularly important element of the multimodal approach for building sustainability.
- Annual self-assessment of IPC capacities (with or without external support) is a best practice which has been institutionalized as part of the revitalization process in selected MTaPS-supported hospitals. During their annual budget planning, level 2 Saint Jean de Dieu Hospital in Thiès and level 3 General Idrissa Pouye Hospital in Dakar, respectively, conducted their self-assessments using the WHO IPCAF tool. The assessment process aims to evaluate the hospitals' performance and use gaps identified during the assessment to plan IPC program implementation with the hospitals' management teams.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity & Description	Date
Activity 1.1.1: Strengthen the functionality of the AMR TWG by supporting effective coordination through regular meetings. MTaPS will support the development and validation of the National AMR plan for 2023–2027 under the aegis of the OH secretariat. MTaPS will also provide technical support to the national IHR focal point through multisectoral activities in preparation of the JEE planned for July 2023.	May 2023
Activity 2.5.2: Provide technical assistance for supportive supervision to increase compliance with the updated IPC guidelines and standards. MTaPS will also support formative supervision of IPC practices at the level of the hospitals supported by the program.	April–May 2023
Activity 2.5.3: Support the revitalization of ICCs at two selected district and regional hospitals. MTaPS will continue to support the hospitals in the program to conduct a self-assessment of their IPC capacity using the IPCAF tool.	April–May 2023
Activity 2.5.4: Support the development, dissemination, and implementation of the national IPC strategic plan MTaPS will support the MOH to validate the national IPC strategic plan by the General Direction of public health to start implementation of selected activities.	April–May 2023

Activity 3.1.1: Support the implementation of capacity-building interventions to increase compliance with antibiotic STGs. MTaPS will support the training of a pool of trainers for appropriate use of antibiotics for treatment and the training of antibiotic committees in the 13 supported hospitals.	April–May 2023

Table 26. Quarter 2, FY23, Activity Progress, Senegal—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.1.1: Strengthen the functionality of the AMR TWG by supporting effective coordination through regular meetings	5.4	1.1	MTaPS continued providing technical and financial support for effective coordination through regular meetings under the aegis of the OH secretariat. In collaboration with Breakthrough Action, FAO, WHO, PATH/FAO/Fleming Fund, MTaPS continues to provide technical support for the review and update of the national AMR action plan.
Activity 2.5.2: Provide technical assistance for supportive supervision to increase compliance with the updated IPC guidelines and standards	5,4	2.5	MTaPS provided technical support to review and update the supervision checklist and continue to support the biannual national IPC supervision organized by the MOH and supervision of the health facilities supported by MTaPS.
Activity 2.5.3: Support the revitalization of ICCs at two selected district and regional hospitals	5.4	2.5	MTaPS continued supporting the revitalization process of the ICCs of the 13 selected health facilities through self-assessment with the IPCAF tool, refresher trainings, mentoring, and formative supervisions.
Activity 2.5.4: Support the development, dissemination, and implementation of the national IPC strategic plan	5.4	2.5	MTaPS has supported the development of the first draft of the national IPC strategic plan. MTaPS will support the validation of the national document by the MOH and its implementation in selected hospitals and health districts.
Activity 3.1.1: Support the implementation of capacity-building interventions to increase compliance with antibiotic STGs	5.4	3.1	MTaPS is working with the NCAT to develop and finalize STG training modules and train the prescribers in the 13 health facilities supported by MTaPS.

Q. TANZANIA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA goal of MTaPS Tanzania is to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. To achieve this, MTaPS Tanzania is implementing the strategic objective of improving quality of care and containment of AMR in the country by building capacity of in-country stakeholders through a system-strengthening approach in three result areas: effective MSC on AMR, IPC, and optimization of antimicrobial medicines use.

The PY 5 implementation plan for GHSA is to build on the work done in program years 1, 2, 3, and 4. MTaPS Tanzania continues to focus on strengthening the governance of the MOH and selected health facilities HFs, in collaboration with other USAID programs and partners working to implement a sustainable AMR program in Tanzania. MTaPS Tanzania is advocating for the use of data for CQI of both AMS and IPC interventions and is supporting the development and implementation of surveillance methods for SSIs, whose treatment involves antibiotics and is therefore a key concern with respect to AMR. MTaPS Tanzania is building the capacity of HCWs to implement the IPC-related reporting system (as part of the DHIS 2) to provide the MOH with data for decision making about IPC and for the active implementation of CQI methodologies and AMS interventions in supported health facilities.

CUMULATIVE PERFORMANCE TO DATE

As of September 2022, MTaPS Tanzania supported 37 WHO IHR benchmark actions: 8 contributing to MSC/AMR, 20 contributing to IPC, and 9 contributing to AMS. MTaPS Tanzania helped the MOH improve Tanzania's JEE score for MSC by supporting 25% (1/4) of capacity level 2, 50% (2/4) of 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 47% (8/17). In MSC, MTaPS Tanzania supported the coordination of AMR activities under the AMR MCC, working under the OH approach, such that the MCC held meetings to oversee and give guidance on implementing the NAP-AMR 2017–2022 across the human health, animal health, plant, and fishery sectors. MTaPS Tanzania supported the setup and operation of the IPC and AMS TWGs, which helped improve the implementation of IPC and AMS activities in Tanzania. MTaPS Tanzania supported the development and the operationalization of the Multisectoral AMR Communication Strategy: Moving from Awareness to Action 2020–2025, which helped to improve OH communications, practices, and implementation among the MOH, the Ministry of Agriculture (MOA), the Ministry of Livestock and Fisheries (MLF), the President's Office Regional Administration and Local Government, and the four TWGs that feed into the MCC (AMR awareness, AMR surveillance, IPC, and AMS).

In IPC, as of September 2022, MTaPS Tanzania supported 80% (4/5) of capacity level 2, 100% (6/6) of level 3, 100% (5/5) of level 4, and 100% (5/5) of level 5 WHO benchmark actions, resulting in an overall achievement rate of 95% (20/21), which contributed to improving the country's performance beyond the 2016 JEE score of 3. MTaPS Tanzania supported the revision of the national IPC guidelines for health

care services in Tanzania (2018 edition) and their distribution across mainland Tanzania. MTaPS Tanzania also conducted IPC training for a cumulative total of 519 (296 female, 223 male) HCPs. To improve IPC implementation and sustainability, MTaPS Tanzania established and strengthened IPC committees in 10 MTaPS Tanzania–supported hospitals and conducted clinical mentorship and CQI, which brought about improved WASH and handwashing practices and reduced SSIs and other nosocomial infections. MTaPS Tanzania developed an IPC e-Learning course, which equipped the Center for Distance Education in Morogoro to offer online IPC training to HCPs. Furthermore, MTaPS Tanzania supported the MOH to review the IPC training curriculum for HCPs and oriented 61 (41 female, 20 male) 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 (HMIS) focal persons on use of IPC M&E tools and reporting IPC indicators via DHIS 2. MTaPS Tanzania also supported the MOH to develop the HAI surveillance system with reporting through DHIS 2. All 10 MTaPS Tanzania–supported facilities are now conducting HAI surveillance and reporting to the MOH while using the data for facility IPC improvement.

MTaPS' Tanzania implementation of AMS activities as of September 2022 has contributed so far to improving Tanzania's baseline JEE score from level 1 to level 2 capacity by supporting 75% (3/4) of capacity level 2, 50% (3/6) of capacity level 3, 14% (1/7) of capacity level 4, and 29% (2/7) of capacity level 5 WHO benchmark actions, resulting in an overall score of 38% (9/24). MTaPS Tanzania supported the MOH, the MOA, and the MLF in developing the AMS policy guidelines as per the OH approach. MTaPS Tanzania supported the MOH in developing and disseminating the MTC guidelines as well as the STGs and the NEML for Tanzania, which included the AWaRe categorization of antibiotics. MTaPS Tanzania conducted a training on AMS—specifically, on the ethical prescribing and dispensing of antimicrobials. A total of 110 (43 female, 67 male) HCPs from 10 supported facilities received the training. MTaPS Tanzania, in collaboration with the MOH, supported HFs in implementing AMS interventions, including reviving MTCs to foster AMS implementation at hospitals. MTaPS Tanzania also conducted a survey on the national AMC in Tanzania for the years 2017–2019 and a PPS on AMU across 6 referral hospitals. In addition, a national hospital formulary template was developed and provided to 10 supported hospitals to be used in developing/revising their own hospital formularies. MTaPS Tanzania 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 2/YEAR 5 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Review plans and progress through regular meetings of the AMR governance committee

MTaPS Tanzania worked with the MOH to organize and conduct an AMR MCC meeting held March 29–30, 2023. There were 21 participants (6 female, 15 male) in attendance. The agenda focused on presentation and approval of new members of the MCC and its respective TWGs: IPC, AMS, AMR surveillance, AMR awareness, and M&E for proper implementation of the new NAP-AMR 2023–2028. The newly established M&E TWG was set up based on WHO guidelines to ensure proper monitoring of NAP-AMR implementation. Two MTaPS Tanzania technical staff were appointed as members of the M&E TWG and IPC TWG, respectively. During the MCC meeting, the MTaPS Tanzania program presented

on the support provided to the MOH and was acknowledged for its contribution in strengthening MSC, IPC, and AMS for AMR containment.

RESULT AREA 2: IPC

Activity 2.2.1: Strengthen the capacity of journalists to advocate for and to increase awareness of IPC for infectious diseases in the community

MTaPS Tanzania supported the MOH in reviewing the 2017 IPC communication strategy from February 6 to 10, 2023. The revised strategy was subsequently shared with stakeholders for inputs. The strategy has a set of nationally approved messages to harmonize dissemination of IPC/AMR information and for ease of communication among stakeholders in IPC. This will aid journalists in sharing approved IPC/AMR information with the public, helping all people to be on the same page about IPC/AMR, which in turn is expected to improve efficiency in IPC implementation and promote effective behavior change communication related to IPC/AMR.

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

Activity 3.3.1: Conduct an antimicrobial utilization survey to assess compliance to AMS guidelines in the selected facilities

MTaPS Tanzania provided technical support to the MOH to collect data on AMC for 3 years, i.e., 2020, 2021, and 2022. It will use the collected data to enable a multi-year trend comparison between the national AMC data collected for the years 2017–2019 and the data from the new 3-year period (2020–2022), thus monitoring effectiveness of national AMS policies and guidelines.

In addition, MTaPS Tanzania supported the development of PPS SOPs based on the WHO PPS protocol. The SOPs will help with capacity building of facility AMS teams to perform their own PPS without support from MTaPS or other projects. PPS has subsequently been undertaken in two facilities: Temeke Regional Referral Hospital and Benjamin Mkapa Zonal Referral Hospital.

Activity 3.5.1: Continue to improve capacity to support AMS practices in 10 supported health facilities

MTaPS Tanzania supported AMS supportive supervision in 10 MTaPS Tanzania–supported facilities using the health facility assessment tool adapted from the WHO facility AMS assessment tool. The data were incorporated into the Afya Supportive Supervision (AfyaSS) platform, a MOH digital supportive supervision platform. The data showed that there is observed improvement in AMS practices in the assessed facilities, mainly in monitoring of antibiotic use and in dedicating a budget for undertaking AMS interventions; however, some facilities had a drop in performance due to trained staff transfer from the hospitals.

BEST PRACTICES/LESSONS LEARNED

- The MOH leadership in AMC data collection and data entry has enhanced the capacity-building efforts of MTaPS Tanzania for the HCWs involved in the national AMC surveys.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Review plans and progress through regular meetings of the AMR governance committee ▪ Undertake assessment of the country's progress on JEE capacity for IPC, MSC, and AMS.	April–June 2023
Activity 2.2.1: Strengthen the capacity of journalists to advocate for and to increase awareness of IPC for infectious diseases in the community ▪ Finalization of the revision of the IPC communication strategy	May 2023
Activity 2.5.1: Continue to support active surveillance of HAIs, specifically SSIs ▪ Conduct onsite IPC mentorship and repeat facility-level IPC assessment using IPCAF in 9 supported facilities.	April 2023
Activity 3.2.1: Support the development of AMS in-service training curriculum and training materials to enhance HR competence in AMS ▪ Develop the AMS curriculum and training materials, and train health workers.	April–June 2023
Activity 3.3.1: Support the development of AMS in-service training curriculum and training materials to enhance HR competence in AMS ▪ Prepare National AMC report with multi-year trend comparison of 2017–2019 versus 2020–2022 data. ▪ Prepare PPS report for the 2 hospitals assessed.	April–June 2023
Activity 3.5.1: Continue to improve capacity to support AMS practices in 10 supported health facilities ▪ Undertake AMS interventions in supported health facilities.	April–June 2023

Table 27. Quarter 2, FY23, Activity Progress, Tanzania—GHSA

Activity	MTaPS Objective (s)	GHSA Result (s)	Activity Progress
Activity 1.1.1: Review plans and progress through regular meetings of the AMR governance committee **Activity description:** Support to regular MSC meetings to oversee implementation of NAP-AMR. Support to assessment of progress on JEE/WHO Benchmark actions across IPC, AMS, and MSC	5.4	1.1	MTaPS Tanzania supported a meeting of the AMR MCC held on March 29-30, 2023, where new TWG members were approved. A new TWG for M&E was established as per the new NAP AMR 2023-2028 and WHO guidance. 21 participants (6 female, 15 male) attended.
Activity 2.2.1: Strengthen the capacity of journalists to advocate for and to increase awareness of IPC for infectious diseases in the community **Activity description:** Train journalists on IPC. Support the development of the IPC communication strategy.	5.4	2.2	MTaPS provided technical support in the review of the 2017 IPC/AMR Communication strategy from February 6 to 10, 2023. The draft strategy shared to stakeholders for their inputs / feedback.
Activity 2.5.1: Continue to support active surveillance of hospital acquired infections, specifically SSIs (activity continuing from FY22) **Activity description:** Conduct onsite mentorship on IPC. Mentor HCWs on how to use SSI surveillance guidelines, using existing MOH mentors to cascade mentorship through onsite visits to the 10 supported hospitals. Use the Extension for Community Healthcare Outcomes (ECHO) platform for capacity building of facility IPC teams. Conduct stakeholder forums to discuss IPC performance at subnational level.	5.4	2.5	MTaPS Tanzania developed a plan in collaboration with MOH to conduct onsite IPC mentorship to 9 of 10 MTaPS Tanzania–supported hospitals in April 2023 using National SSI tools, including the HAI surveillance guidelines and job aids previously developed with MTaPS Tanzania support. One hospital (Kagera Regional Referral Hospital) will not be visited due to a Marburg virus disease outbreak. Repeat facility level IPC assessment will also be undertaken to help to assess progress in the surveillance component of IPCAF.
Activity 3.3.1: Conduct an antimicrobial utilization survey to assess compliance to AMS guidelines in the selected facilities **Activity description:** Collect and analyze AMC data for the years 2020, 2021, and 2022. Prepare PPS SOPs and perform PPS in 2 facilities.	5.4	3.1	MTaPS Tanzania supported collection of antimicrobial consumption data from Tanzania Medicines and Medical Devices Authority (TMDA), Medical Stores Department, prime vendors, and factories for the years 2020, 2021, and 2022. MTaPS Tanzania also supported development of PPS SOPs and performed PPS in 2 facilities (Temeke Regional Referral Hospital and Benjamin Mkapa Hospital).
Activity 3.5.1: Continue to support active implementation of AMS practices in 10 supported health facilities **Activity Description:** Undertake AMS supportive supervision in 10 supported hospitals using supportive supervision tools adapted by MTaPS Tanzania in PY4. Support facilities to develop quality improvement plans and use CQI to implement them.	5.4	3.5	MTaPS Tanzania performed supportive supervision in 10 supported health facilities using the health facility assessment tool adapted from the WHO facility AMS assessment tool. The collected data were uploaded into the AfyaSS platform for progress monitoring by the MOH over time.

FIELD SUPPORT ACTIVITIES

OVERVIEW

The goal of MTaPS Tanzania is to strengthen Tanzania's pharmaceutical system to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable medical products and medicine-related pharmaceutical services. This is done through strengthening the institutional capacity of the TMDA to manage pharmaceutical systems by improving its market authorization and import processes for ARVs and 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 grow TMDA toward maturity level 4.

CUMULATIVE PERFORMANCE TO DATE (OCTOBER 2020–MARCH 2022)

MTaPS Tanzania provided technical support to the TMDA to improve efficiency in executing its regulatory functions by increasing the capacity of TMDA medicine evaluators with respect to medicine dossier evaluation. This will ensure the quality, safety, and efficacy of medicines such as ARVs. MTaPS helped train 30 (12 female, 18 male) TMDA medicine evaluators to conduct medicine dossier assessments, which will help reduce the processing time for applications for the registration of new medicines. In addition, the assessors trained with support from MTaPS Tanzania will continue to train new staff and ensure sustainable knowledge transfer within the TMDA and Tanzania at large.

With respect to PV, MTaPS Tanzania 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 also trained in PV and now have the capacity to assess pediatric ADRs and provide feedback to ADR reporters. MTaPS Tanzania also supported the development of guidelines for monitoring the safety of medicines used in the pediatric population, which will help improve monitoring of medicines that include those for chronic diseases such as HIV/AIDS, as well as monitoring of children's susceptibility to ADRs. The TMDA, with support from MTaPS Tanzania, conducted a 10-day training to build the capacity of TMDA staff to assess PSURs and risk management plans (RMP), consequently increasing the number of competent assessors at the TMDA. The TMDA and MTaPS trained 27 (10 female, 17 male) new TMDA staff, interns, and external assessors on basic methods of assessing PSURs and RMPs for ARVs and other medicinal products. This support has helped the TMDA improve its monitoring, reviewing, and reporting of safety issues arising from medicines used by the pediatric population.

MTaPS Tanzania 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 Tanzania provided technical support to the TMDA on the development of the tools used for the process mapping, identification of key informants and their participation in in-depth interviews, and subsequent qualitative and quantitative data analyses of survey responses. MTaPS Tanzania 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 to create awareness of unnecessary bottlenecks and appropriate steps to ensure product quality/safety in registering and importing medicines; increased opportunities to streamline the regulatory environment and guidelines for ARVs and to improve efficiency during clearance of imported medicines, including ARVs; and eliminating wastage of products for managing HIV/AIDS and other diseases. The interventions ultimately improve public access to medicines required for treating HIV and improve treatment outcomes, enabling a better quality of life for people living with HIV and other diseases.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

The US President's Emergency Plan for AIDS Relief (PEPFAR) Country Operational Plan (COP) 22 was approved by USAID Tanzania in February 2023. Subsequently, MTaPS Tanzania undertook a process of identifying and engaging a consultant. MTaPS Tanzania has agreed jointly with TMDA on work plan activity implementation in Quarter 3.

BEST PRACTICES/LESSONS LEARNED

None this quarter.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Streamline the process of importation and registration of medicines, especially ARVs, according to international standards to assure quality, safety, and efficacy ▪ Support follow-up workshop for stakeholder discussion to review status of recommendations for process mapping and address any obstacles with development of action plan.	April–May 2023
Activity 1.1.2: Support the TMDA to deliver its mandate to assure safe, effective, and quality-assured medicines by creating a solid workforce for performing the required regulatory functions ▪ Conduct capacity building on comprehensive assessment of quality, safety, and efficacy of ARV product registration applications and hands-on assessment of dossiers. ▪ Undertake 2 product dossier review retreats.	April–May 2023
Activity 1.1.3: Enhance the capacity of TMDA clinical trials unit officers to evaluate clinical trial applications (CTA) and conduct inspection of clinical trial sites ▪ Conduct training of TMDA clinical trials officers on evaluation of CTAs and inspection of clinical trial sites.	April–May 2023
Activity 2.1.1: Support capacity building for PV PSUR and RMP implementation by domestic pharmaceutical manufacturers/market authorization holders (MAH) and evaluation by the TMDA ▪ Develop training materials for hands-on preparation of PSUR and RMP documentation. ▪ Train TMDA staff on inspection of PV systems for MAHs. ▪ Train TMDA junior assessors and qualified persons responsible for PV on PV principles and submission and evaluation of PSURs and RMPs. ▪ Conduct training of MAH/manufacturer staff on PV.	April–June 2023
Activity 2.1.2: Provide support for strengthening of PV at referral (PV centers) and at TMDA zonal offices ▪ Conduct advance PV training for focal persons at TMDA zonal centers and referral PV centers ▪ Conduct periodic sensitization of HF staff served by the TMDA zonal offices and referral PV centers. ▪ Print and distribute the PV-related guidelines, safety manual, and reporting forms to HFs.	April–June2023

R. UGANDA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

In the JEE assessment of 2017, Uganda achieved a developed capacity score of 3 for both IPC and AMS. MTaPS aims to combat the emergence and spread of AMR in Uganda by enhancing the capacity of in-country stakeholders and health care facilities through a health system–strengthening approach. This includes implementing Uganda's NAP on AMR and working toward achieving a higher JEE score, which would result in an improvement in the WHO Benchmarks for IHR Capacities. MTaPS Uganda offers direct technical support to GOU MDAs in three key areas of the GHSA AMR action package: optimizing the use of antimicrobials through AMS, enhancing IPC practices, and strengthening government-led MSC for the national AMR program through the NAMRSC of the OHP.

CUMULATIVE PERFORMANCE TO DATE

As of September 2022, MTaPS has helped Uganda to improve its JEE-2 score for MSC/AMR by assisting with 50% (2/4) of level 2 capacity actions, 50% (2/4) of level 3 actions, and 50% (2/4) of level 4 actions. MTaPS collaborated with the Uganda OHP TWC to establish the NAMRSC and its TWCs. In addition, MTaPS has acknowledged the contributions of two female leaders and advocates for AMR in Uganda, highlighting their efforts to promote gender equity in leadership roles. The ASO TWC has received support from MTaPS to produce two biannual AMS newsletters and hold regular meetings.

In IPC, as of September 2022, MTaPS has helped Uganda to improve the JEE-2 score by supporting 100% (5/5) of capacity level 2, 100% (6/6) of level 3, and 40% (2/5) of level 4 WHO IHR benchmark actions. In 2019, MTaPS supported the MOH to conduct the first-ever national IPC survey. MTaPS has subsequently applied best practices to implement CQI plans for IPC improvement at supported HFs. As part of capacity building at the HFs, MTaPS has cumulatively conducted 93 mentorship visits in 13 HFs, reaching 2,244 HCWs (55% female, 45% male). To foster the scale-up and sustainability of IPC/WASH implementation in the country, MTaPS built the capacity of 5 USAID partners implementing the Regional Health Integration to Enhance Services programs in 5 regions, with 24 IPC/WASH technical officers trained, who, through district- and facility-based activities, transferred the knowledge to 356 district health team members (26% female, 74% male), 277 HFs, and 396 HCWs (57% female, 43% male).

In the area of AMS, as of September 2022, MTaPS has helped Uganda to improve the JEE-2 score by supporting 50% (2/4) of capacity level 2, 33% (2/6) of level 3, and 29% (2/7) of level 4 WHO IHR benchmark actions, thus contributing to sustaining level 3 and progressing toward achieving levels 4 and 5. MTaPS, working with the MOH, has progressively built capacity for AMS in HFs through implementation of AMS CQI plans. MTaPS supported the NDA to develop a web-based application for routinely collecting AMC data, and it subsequently developed a manual for national surveillance of AMC at the NDA and conducted assessment of national AMC consumption (import data) for 2019–2022. MTaPS assessed AMS policies, regulatory framework, and supply chain, as well as an assessment of existing systems for monitoring AMU in humans and animals in both public and private sectors in Uganda.

To bridge the gap between human health and animal health that was observed at baseline, MTaPS has supported the animal health sector by working with the MAAIF to develop an EVML, guidelines on antibiotic use in various food animals, IEC materials, and AMR awareness messages for use in the animal health sector. Additionally, MTaPS supported the MAAIF to develop the National IPC Strategy for the agricultural sector. These activities support completion of actions under capacity level 2 on the JEE-2.

QUARTER 2/YEAR 5 ACHIEVEMENTS AND RESULTS

MTaPS, working with Makerere University, supported the ASO TWC of the NAMRSC in developing the fourth edition of the multisectoral biannual AMS newsletter. The AMS newsletters are a platform for dissemination of key NAP-AMR activities and information exchange that helps to build human resource capacity through better sharing of data and use of data for decision making for AMR; thus, supporting progress toward achieving JEE-2 capacity level 3 and supporting advancements toward JEE-2 capacity level 4 for AMR coordination.

During Quarter 2, MTaPS supported the NAMRSC to apply locally adopted tools to collect data and information from numerous stakeholders at subnational and national levels. MTaPS supported HFs to apply locally developed tools to collect data and information on the MTaPS interventions for IPC and AMS in six MTaPS-supported HFs.

MTaPS is supporting the NAMRSC of the OHP to review the implementation of the NAP-AMR. Besides helping to establish the status of NAP-AMR implementation in Uganda, the gathered information will help to identify barriers and recommendations for NAP-AMR implementation. It will also support advocacy for the identification of potential sources of sustained funding for the NAP-AMR.

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.2.1: Collaborate with Makerere University and the AMS TWC to write a biannual AMS newsletter highlighting AMS activities implemented at national and subnational levels and share the newsletter on the documentation platform (Y4)

MTaPS worked with Makerere University and the ASO TWC of the NAMRSC to develop the fourth edition of the multisectoral biannual AMS newsletter, which highlights AMR activities implemented at national and subnational levels. This edition is currently undergoing technical review. The AMS newsletter is critical for the dissemination of key information on the implementation of NAP-AMR activities. The publication links the three sectors (MSC, IPC, and AMS) and allows for information exchange between the national and subnational levels.

Activity 1.4.1: Work with the NAMRSC to conduct a review of the NAP-AMR (both qualitative and quantitative) to identify barriers to implementing the NAP, make recommendations to overcome the barriers, and advocate for and identify potential sources of sustained funding

To understand the status and barriers to NAP-AMR implementation from the perspective of intended implementors (subnational), MTaPS worked with the NAMRSC of the OHP to collect data from various stakeholders sampled across the country. These included stakeholders from human health (district health officials, and health care workers), animal health, and environmental health (district veterinary

officers [DVO], farmers, district environment health officers). The qualitative data were collected through application of a locally developed tool in key informant interviews and FGDs.

National-level stakeholder consultations were held to collect data from the perspective of high-level implementers and policy makers, including Government ministries (the MOH, the MAAIF, and the Ministry of Water and Environment [MWE]), departments and agencies (the NDA, professional councils), the NAMRSC's multisectoral TWCs, and implementing partners (donors and nongovernment organizations). This was accomplished through OHP-facilitated FGDs in a 2-day workshop that had 50 participants (35% female, 65% male). The comprehensive review exercise provided data and information to help establish the status of NAP-AMR implementation in Uganda, the barriers and recommendations, and an advocacy base for the identification of potential sources of sustained funding for the NAP.

An FGD session during the subnational consultation meeting with the office of the DVO of Gulu district, Uganda. Photo credit: Hassan Kasujja, MTaPS

An FGD session during the national-level consultation workshop, Uganda. Photo credit: Hassan Kasujja, MTaPS

RESULT AREA 2: IPC

Activity 2.5.1: Improve the quality of health care services through strengthening IPC at COEs

MTaPS developed a tool for qualitative assessment of the six IPC COEs' capacity to perform on their own.

As IPC COEs, the hospitals are expected to manage their own CQI programs and assist lower-level facilities in establishing CQI, develop and implement a plan to ensure COE sustainability, and list the remaining gaps in support (e.g., those related to COE staffing and finance). During Quarter 2, MTaPS supported data collection through application of a locally developed tool in six MTaPS-supported HFs. The collected data provided insight into the effectiveness of the MTaPS approach for IPC implementation in HFs and laid the groundwork for a programmatic evaluation of MTaPS implementation in Uganda. Additional data collection for outcome and impact assessment for IPC and hand hygiene will be undertaken during Quarter 3. The results will be used to advocate for funding to sustain the COEs, and the documented challenges and lessons learned will be shared through the NAMRSC and other forums with stakeholders in IPC implementation.

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

Activity 3.3.1: Work with the MOH to monitor and evaluate AMS interventions, including AMU data, and publicly report on the results

MTaPS, working with the MOH and the ASO TWC, applied a locally developed checklist in six MTaPS-supported hospitals to collect data for evaluating AMS interventions at MTaPS-supported HFs and identifying barriers to implementation and lessons learned. The collected data provided insight into the effectiveness of the MTaPS approach for AMS implementation in HFs and provided a basis for a programmatic evaluation of MTaPS implementation in Uganda. Additional data collection for outcome and impact assessment for AMS is planned for Quarter 3.

Activity 3.5.1: Designate hospitals as COEs in AMS

MTaPS, working with the MOH, refined a tool for qualitative assessment of the six supported hospitals to provide evidence for decision making by the MOH on whether the facilities have adequate AMS capacity to be designated as AMS COEs. The MOH will use the findings of these assessments to refine the criteria for designating a COE for AMS, such as capacity to manage their own CQI programs, to support lower-level facilities in establishing CQI to improve AMS, to develop and implement a plan to ensure COE sustainability, and to identify remaining gaps for advocacy to partners for support. These criteria can thereafter be applied to other HFs to support the development of AMS competencies.

QUARTER 2 BEST PRACTICES/LESSONS LEARNED

- It is important for implementing partners to be part of the health system they are striving to change. Being available to contribute to resolving various health system challenges the country faces has allowed MTaPS to foster good relationships with key stakeholders in Uganda's health system. MTaPS' availability and dependability has built stakeholders' trust in MTaPS.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Activity 1.4.1: Work with the NAMRSC to conduct a review of the NAP-AMR ▪ Data analysis and drafting of reports on the status of completion of IHR benchmark actions and NAP implementation ▪ Undertake national stakeholder meetings to validate the results from the review exercise. ▪ Development of refined draft report, stakeholder validation, and final report for approval	April–May 2023
Activity 2.5.1: Improve the quality of health care services through strengthening IPC at COEs ▪ Undertake round 2 of data collection on the outcome and impact of IPC implementation. ▪ Data cleaning, analysis, and technical report writing ▪ Report dissemination and handover to the NAMRSC and the MOH	April–June 2023
Activity 3.3.1: Work with the MOH to monitor and evaluate AMS interventions, including AMU data, and publicly report on the results ▪ Undertake round 2 of data collection on the outcome and impact of AMS implementation. ▪ Data cleaning, analysis, and technical report writing ▪ Report dissemination and handover to the NAMRSC and the MOH	April–June 2023
Activity 3.5.1: Designate hospitals as COEs in AMS ▪ Conduct additional data for impact assessment for AMS interventions in 6 HFs. ▪ Work with the MOH to apply tools to designate hospitals as COEs. ▪ Undertake data cleaning, analysis, and technical report writing. ▪ Dissemination of results at subnational and national levels and handover	April–June 2023

Table 28. Quarter 2, FY23, Activity Progress, Uganda—GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	Activity Progress
Activity 1.4.1: Work with the NAMRSC to conduct a review of the NAP-AMR (both qualitative and quantitative) to identify barriers to implementing the NAP, make recommendations to overcome the barriers, and advocate for and identify potential sources of sustained funding **Activity description:** Assessment through stakeholder engagement meetings, focus group discussions and key informant interviews with national and subnational stakeholders	5.4	1.4	MTaPS supported NAMRSC to undertake data collection from subnational- and national-level stakeholders through key informant interviews and FGDs. The data will be analyzed, and a draft report will be developed for validation and dissemination.
Activity 2.5.1: Improve the quality of health care services by strengthening IPC at COEs **Activity description:** Conduct a qualitative assessment (via qualitative focus group discussions) of the COEs' capacity to perform on their own, develop and implement a plan to ensure COE sustainability, list the remaining gaps in support, and hand over to the MOH (or district heath authorities).	5.4	2.5	MTaPS applied a locally developed tool to assess capacity of the COEs for IPC and to collect data on and evaluate IPC implementations in 6 MTaPS-supported HFs. Additional data collection to assess impact for IPC is planned for Quarter 3.
Activity 3.3.1: Work with the MOH to monitor and evaluate AMS interventions, including AMU data, and publicly report on the results **Activity description:** Conduct quantitative and qualitative assessments to evaluate AMS interventions and support provided by MTaPS to HFs.	5.4	3.3	MTaPS applied a locally developed tool to assess capacity of the COEs for AMS and to collect data on and evaluate AMS implementations in 6 MTaPS-supported HFs. Additional data collection to assess impact for AMS is planned for Quarter 3.
Activity 3.2.2: Designate hospitals as COEs in AMS **Activity description:** a) Assess the COEs, including the collection of qualitative data on antibiotic use and performance to designate HFs as COEs for AMS and hand over tool to the MOH. b) Roll out automated system for measuring volumes of antibiotics imported into the country.	5.4	3.2	a) Working with the MOH, MTaPS has designed a tool to assess whether the 6 supported hospitals have adequate AMS capacity to be designated as AMS COEs. Data collection is planned for Quarter 3. b) MTaPS obtained approval to cancel the activity due to budget constraints in the face of project closure.

5. PROGRESS BY REGIONAL BUREAUS

A. ASIA REGIONAL BUREAU

OVERVIEW

MTaPS set out to advance pharmaceutical management systems within the Asia region by improving the ability to institutionalize transparent and evidence-based decision-making, building capacity to use robust information to define and cost pharmaceutical coverage, and strengthening medicine regulatory capacity and pharmaceutical-sector governance.

CUMULATIVE PERFORMANCE TO DATE

Under Objective 1, MTaPS developed a road map for institutionalizing HTA in LMICs in consultation with global and regional HTA experts in 2020. MTaPS assessed the status of HTA in nine Asian countries (China, India, Indonesia, Malaysia, the Philippines, South Korea, Taiwan, Thailand, and Vietnam) and shared the results at HTAsiaLink in October 2021. The road map was published in the International Journal of Technology Assessment in Healthcare. The status of HTA in Asia was a poster presentation at the International Society for Pharmacoeconomics and Outcomes Research, 2021. In June 2022, MTaPS conducted a workshop on real-world evidence for Indonesia with the World Bank, Center for Global Development, and International Decision Support Initiative.

Under Objective 2, MTaPS reviewed the tools for costing pharmaceutical benefit packages (PBPs) in PY2. In PY3, MTaPS delivered trainings for Kyrgyzstan, Bangladesh, Nepal, and the Philippines on how to use the OHT to cost PBPs. In addition, MTaPS facilitated a training on the OHT for the HEU, MOH, and partner agencies in Bangladesh. As a result, the HEU selected the country's *Shasthyo Surokhsha Karmasuchi* (SSK) Social Health Protection Scheme benefits package for a costing exercise. MTaPS also drafted the pharmaceutical expenditure (PE) tracking guidelines using country experiences from Burkina Faso, Benin, Vietnam, and Indonesia.

Under Objective 3, MTaPS is supporting RSS activities in Asia. In PY1, MTaPS undertook a mapping exercise to identify key entities that were working on pharmaceutical RSS. MTaPS identified ASEAN, the WHO Collaborative Procedure for Accelerated Registration, and SEARN. In PY2, MTaPS facilitated a capacity building session on Evaluation of COVID-19 Vaccine Dossiers for Regulatory Assessors for two members of SEARN—Bangladesh and Nepal. In PY3, MTaPS undertook competency mapping in Nepal, Bangladesh, and the Philippines using the WHO global competency framework. Gaps identified were used to develop a capacity building plan for the NRA of Nepal. In PY4, MTaPS held a workshop on Convergence of Technical Standards for Medical Product Registration, attended by the NRAs of Bangladesh and Nepal. In PY5, MTaPS and USAID's PQM+ program facilitated a regional trainer of trainer's course on the Evaluation of Biological Products, including Vaccines for ASEAN member states.

Under Objective 4, MTaPS facilitated meetings with the Philippines DOH PS to discuss implementation of activities on strategic procurement of medical products in PY4. In PY5 Q1, MTaPS presented an inception report to USAID-Philippines, and a draft legal analysis report based on initial desk review of

documents. In 2021, MTaPS partnered with WHO to review COI policies in southeast Asian countries. Subsequently, MTaPS and WHO developed a COI manual, a practical guide tailored for public pharmaceutical (PP) committees in LMICs. The manual outlines 10 steps for enhancing COI policy, prevention, and management in PP decision-making committees.

QUARTER 2/YEAR 5 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: Exploring and supporting the development of an HTA hub or collaborative institution in the Asia region

MTaPS submitted a draft report on the HTA hub e-survey and key informant interview (KII) findings to USAID for their review in February 2023. The draft report was also shared with KIIs for validation in March 2023. MTaPS will incorporate additional feedback and finalize it by the end of April 2023. An abstract on the HTA Asia hub report was accepted by the International Health Economics Association Congress to be held in Cape Town, South Africa in July 2023.

Activity 1.1.2: Develop and disseminate HTA strategic briefs on lessons learned for HTA advancement in the region

In PY5 Q2, MTaPS developed an HTA business model canvas based on the model by Osterwalder, extracted key highlights from the HTA roadmap, and converted it into an easy-to-use and apply tool for countries seeking to implement or advance HTA. In addition, a set of instructions for users of the business model canvas was developed.

Activity 1.2.1: Cross-country learning exchange and in-person technical assistance (TA) on HTA in the Asia region

Preliminary discussions about a potential multi-country activity later this year commenced and are ongoing with 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: Build capacities related to the use of the OHT to cost pharmaceutical benefits packages

In PY5 Q2, MTaPS onboarded 2 local consultants in Bangladesh to support costing of the 25 prioritized interventions within the SSK benefits package. MTaPS began collecting and disaggregating data for each intervention and inputting this data into the OHT with expected completion in Q3. Additionally, MTaPS finalized the technical approach brief on the OHT, which overviewed country experiences using the tool and recommendations for future implementation.

Activity 2.2.1: Develop materials for standardization of PE tracking in the Asia region

MTaPS continued adapting the global guidelines on PE tracking to the Bangladeshi context with expected finalization in Q3.

Activity 2.2.2: Strengthen capacity for PE tracking in Bangladesh

In PY5 Q2, MTaPS continued partnering with Data International to implement the pharmaceutical tracking process. After collecting data from health care facilities, MTaPS received word that the household survey data would not be available within the activity timeline. Given the need to move forward with analysis, the consultants began to map data that will inform the methodology report.

OBJECTIVE 3: BUILD HARMONIZED, SUSTAINABLE, AND RESILIENT MEDICINE REGULATORY SYSTEMS IN ASIA

(PY4) Activity 3.1.1: Provide TA to Asian countries to institutionalize regulatory processes and best practices in registration of medical products

MTaPS facilitated a regional training course for ASEAN member states on Good Review Practices (GRevPS) for dossier evaluation from January 16 to 18, 2023. The aim of the course was to improve the knowledge of participants on the essential principles of WHO guidance on GRevPS guidelines. Fifteen participants (9 female, 6 male) from Indonesia, Thailand, Malaysia, Myanmar, Vietnam, Laos, Brunei, and the Philippines attended the course. Participants developed action plans for application of GRevPS to facilitate quality assessments and timely decisions in granting marketing authorization for medical products in their countries.

Activity 3.1.1: Develop capacity building plans and support implementation for the countries in which competency mapping exercise was conducted and develop a regional capacity building strategy for SEARN

MTaPS continued to engage the NRAs of Bangladesh and the Philippines to get feedback on their validation of the disseminated competency mapping findings and subsequent development of capacity building plans. Validation is key for uptake of the findings by the NRAs. The capacity building plans will be used to support development of requisite skills and competencies, enhance efficiency and effectiveness of medicine regulation, and increase maturity levels of the NRAs. MTaPS, in collaboration with the WHO Southeast Asia Regulatory Office (SEARO) and SEARN, held a meeting on February 27, 2023, to continue developing a regional capacity building strategy that will provide a structured approach to develop regulatory skills and knowledge in Asia.

Activity 3.2.1: Apply streamlined methodology for identification of competency gaps in Vietnam

MTaPS held a planning meeting with the DAV and the local USAID mission to discuss the authority's competency mapping activity that was scheduled for March 27 to 31, 2023. DAV requested more time to hold internal deliberations on implementation of the activity.

OBJECTIVE 4: PHARMACEUTICAL SECTOR GOVERNANCE IN ASIAN COUNTRIES STRENGTHENED

Activity 4.1.1: Conduct an assessment and analysis of the procurement policy, laws, associated rules and regulations, and other legal provisions that affect the introduction of strategic procurement interventions in one Asian country (Philippines)

In PY5 Q2, MTaPS engaged the Government Procurement Policy Board (GPPB) and DOH-PS of the Philippines separately to discuss implementation of this activity, but their perspectives were not aligned. Subsequently, MTaPS convened a meeting involving the two stakeholders. Unfortunately, MTaPS could not participate in the meeting and the stakeholders agreed that there was need for detailed discussions with MTaPS on what could be realistically achieved within the remaining period of PY5.

Activity 4.1.1: Conflict of interest e-learning course

MTaPS is working with WHO to develop e-learning modules adapted from "Managing conflicts of interest: A how-to guide for public pharmaceutical sector committees in LMICs". The modules provide practical guidance on preventing and managing COI within the PP system in LMICs and cover topics such as identifying and managing COI and implementing policies to prevent and manage COI, among others. Development of the alpha version of the course is in progress.

BEST PRACTICES/LESSONS LEARNED

- Besides facilitating capacity building workshops, there is a need for MTaPS to provide ongoing mentorship and coaching to ensure correct application of knowledge acquired.
- Well-recognized informal regional networks are easier to collaborate with as opposed to more formalized ones that may require navigating lengthy bureaucratic processes.
- Prioritizing work involving external stakeholders is crucial and essential to ensure effective communication throughout the process. Maintaining constant communication can help to facilitate cooperation and ensure that stakeholders remain engaged in the project.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
PY5 Activity 1.1.1: Finalize report of findings on development of an HTA hub in Asia and submit two manuscripts to journals for publication in Q3.	April 2023 June 2023
PY5 Activity 1.2.1: Monthly meetings with the Philippines MOH to strengthen capacity to conduct and use HTAs for institutionalizing transparent and evidence-based decision-making	April–June 2023 (monthly)
Activity 2.1.1: Build capacities on the use of OHT to cost pharmaceutical benefit packages	May 2023
Activity 2.2.1: Develop materials for standardization of PE tracking in the Asia region and incorporate lessons from Indonesia and Bangladesh once exercises are complete	May 2023
Activity 2.2.2: Complete data mapping and conduct training for HEU stakeholders on PE tracking in Bangladesh	May 2023
Activity 3.1.1: Develop capacity building plans and develop a capacity building strategy for SEARN	April–June 2023
Activity 3.1.2: (Year 4) Create models for adoption of global standards to support development of regulatory IMS for electronic transmission of information in Asia	April–June 2023
Activity 3.2.1: Mapping of regulatory competency gaps in Vietnam	April–June 2023
Activity 3.2.2: (Year 4) Develop and continuously review regional training plans for NRA staff to build their technical capacity on key aspects of registration and regulatory inspections	April–June 2023
Activity 3.3.1: Disseminate strategies and lessons learned for effective medicines registration harmonization in Asia region and support the development of a risk communication plan	April–June 2023
Activity 4.1.1: (Year 4) Finalize and pilot the e-learning course modules on COI and facilitate inception presentation on strategic procurement interventions in the Philippines; continue the analysis, results dissemination, and policy option development; pilot design	May–June 2023 April–June 2023

Table 29. Quarter 2, FY23, Activity Progress, Asia Regional Bureau

Activity	MTaPS Objective(s)	Activity Progress
PY5 Activity 1.1.1: Continue to explore and support the development of an HTA hub or collaborative institution in the Asia region	5.1	Report of findings is drafted; the draft report was shared with USAID and key informants.
PY3 Activity 1.1.2: Develop and disseminate HTA strategic briefs on lessons learned for HTA advancement in the region (from previous year's performance)	5.1	MTaPS actively worked in producing an HTA business model canvas that summarized key highlights from the HTA roadmap document to be used as a tool for countries seeking to implement or advance HTA. A first draft of the canvas was submitted in December 2022. After a first round of reviews and feedback by USAID in early January, the MTaPS HTA team worked on improving the tool by adding a set of instructions as an accompanying guideline for users who will use the tool. A final version of the canvas was submitted in Q2.
PY5 Activity 1.2.1: Support cross-country learning exchange and in-person TA on HTA in Asia region	5.1	Preliminary discussions are being held with the Philippines about a potential multi-country activity later this year.
Activity 2.1.1: Build capacities on the use of OHT to cost pharmaceutical benefit packages	1.1, 2.3, 4.1, 5.3	MTaPS hired local consultants who started data collection for 25 selected interventions under the SSK benefits package.
Activity 2.2.1: Develop materials for standardization of PE tracking in the Asia region	1.1, 2.3, 4.1, 5.3	MTaPS is waiting to finalize the Indonesia and Bangladesh PE exercises to incorporate learnings into a final guidance.
Activity 2.2.2: Strengthen capacity for PE tracking in Bangladesh	1.1, 2.3, 4.1, 5.3	MTaPS finished collection of the available data and began mapping it.
Activity 3.1.2: (Year 4) Create models for adoption of global standards to support development of regulatory IMS for electronic transmission of information in Asia	2.4, 3	PY4 Activity 3.1.2: Implementation plan developed and waiting approval from ASEAN after agreeing on maintaining confidentiality of data and information from Asian member states
Activity 3.2.2: (Year 4) Develop and continuously review regional training plans for NRA staff to build their technical capacity on key aspects of registration	2.4, 3	PY4 Activity 3.2.2: Draft guidance document is being developed for countries to refer to while addressing the gaps identified in the competency mapping exercise
Activity 3.3.1: (Year 4) Support the development of a risk communication plan	2.4, 3	PY4 Activity 3.3.1: The draft for the risk communication plan is under development.
Activity 3.1.1: (Year 5) Develop capacity building plans and support implementation for the countries in which competency mapping exercise was conducted and develop a regional capacity building strategy for SEARN	2.4, 3	PY5 Activity 3.1.1: Ongoing review of country competency mapping reports and validation before development of training plans and working with SEARO to develop a regional capacity building strategy for SEARN
Activity 3.2.1: (Year 5) Apply streamlined methodology for identification of competency gaps in Vietnam	2.4, 3	PY5 Activity 3.2.1: Ongoing discussions with DAV on the activity implementation; activity planned for May 2023.

Activity	MTaPS Objective(s)	Activity Progress
Activity 3.3.1: (Year 5) Disseminate strategies and lessons learned for effective medicines registration harmonization in Asia region	2.4, 3	PY5 Activity 3.3.1: Ongoing planning of regional conference and drafting of manuscript on lessons learned through the years.
Activity 4.1.1. Support implementation and dissemination of the how-to manual on COI	4.1.1.b	At present, MTaPS is in the process of developing e-learning modules on managing COI. The development work has progressed well, and the WHO team has approved the e-learning scaffold and revised the storyboard. As a result of these developments, significant progress has been made in developing the alpha version of the course.
Activity 4.1.1: (Year 4) Conduct an assessment and analysis of the procurement policy, laws, associated rules and regulations, and other legal provisions that affect the introduction of strategic procurement interventions in one Asian country (the Philippines)	5	MTaPS is engaging the GPPB and DOH-PS to determine the way forward based on the initial analyses done on the legal landscape for pooled procurements. There is misalignment between what the initial plan and agreement was and what is being proposed by GPPB. MTaPS will continue to engage the major stakeholders to discuss and agree on what can realistically be done considering the remaining time of the FY.

6. PROGRESS IN ACHIEVING CONTRACT DELIVERABLES

Table 30. Quarter 2 Year 5 Progress in Achieving Contract Deliverables

Contractual Deliverable	Due Date	Submission Date	Comments
Quarterly performance report—PY5 quarter 1	2/28/23	2/28/23	Resubmitted with updated annexes on 4/6/2023

7. PROGRAM SPOTLIGHT

USAID
FROM THE AMERICAN PEOPLE

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

SUCCESS STORY

Building the IPC Capacities of Health Workers in Mali through E-Learning

A person using the FMOS e-learning platform. Photo credit: Ousmane Traoré/MTaPS

After more than two years of suffering from the consequences of the COVID-19 pandemic that claimed the lives of millions of people and weakened economies worldwide, awareness is now widespread on the importance of preventing and controlling infections.

However, not all health workers have the same access to build their capacities and to protect patients and their colleagues in health facilities, a situation that many face in Mali. According to an assessment performed using the World Health Organization (WHO)'s infection prevention and control (IPC) Assessment Framework (IPCAF) in 16 health facilities in September 2021, only 3 were considered as advanced. Therefore, it is necessary to find innovative approaches to increase access so all health agents have the required skills.

Implementing IPC E-Learning Training in Mali

In light of this challenge, the US Agency for International Development (USAID) tasked its Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program to support the Government of Mali for the implementation of an e-learning platform to host an IPC course.

USAID MTaPS collaborated with three organizations to host Moodle platforms on which the IPC course would be offered—the General Directorate for Health and Public Hygiene (DGHSP), the National Institute for Health Sciences (INFSS), and the Faculty of Medicine and Ondostomatology/Faculty of Pharmacy (FMOS).

About USAID MTaPS

The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018-2023) 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.

www.mtapsprogram.org

Contact: Dr. Safoura Berthé, MTaPS Mali Country Project Director, sberthe@mtapsprogram.org

With MTaPS' technical support, the three organizations implemented the platforms that focus on current national guidelines on health care-associated infection prevention and on best international clinical practices for preventing and managing infections caused by multiresistant bacteria.

Additionally, MTaPS built the capacities of assigned platform managers in order to administer the IPC course for continuous training of health professionals and students. 40 people were trained at the central and regional level. A meeting with the Dean of the University of Medicine of Bamako and his team to present the course also enabled the university to provide the course to students.

Screenshot of the FMOS/Faculty of Pharmacy e-learning platform.

Launching the platform in Mali

The e-learning platform was officially launched by the Minister of Health and Social Development during a meeting that included 91 people representing MTaPS, the USAID Mission, the National Institute for Public Health, the DGSHP, the FMOS, the INFSS, the Ministry of Health and Social Development, WHO, and UNICEF.

"With diseases including COVID-19 and Ebola, we need to ensure that our system is resilient so we can continue to offer quality care for all. Health workers are on the frontline and if we don't take precautions, we [health professionals] can be infected and impacted. To be able to have better knowledge, we can now use this e-learning platform […] which is an efficient and trustworthy tool," said the Health Minister.

A year after the launch of the platform, registration has increased significantly from 40 in October 2021 to 121 in June 2022, including 64 people for IPC course and 57 for the course on COVID-19. Additionally, 16 people received their certificate of completion (11 in IPC and 5 for COVID-19).

"Quality of care is closely linked with the enforcement of standard IPC measures. Unfortunately, in spite of its importance, this topic isn't taught or taught marginally in the university curriculum. By providing open access IPC modules, this platform will help strengthen the knowledge of health professionals on IPC and help improve their own health and the quality of care in their health facilities," shared Moussa Ag Hamme, Lead for the DGHSP's Sub-Directorate for Public Hygiene and Cleanliness, on the launch of these platforms.

These e-learning platforms will contribute to a strategic objective of Mali's AMR National Action Plan (2019-2023) of strengthening hospital hygiene measures for human and animal health.

USAID FROM THE AMERICAN PEOPLE

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

USAID
FROM THE AMERICAN PEOPLE

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

SUCCESS STORY

Scaling Up Drug and Therapeutics Committees to Strengthen the Rational Use of Antimicrobials in Mali

Participants to a workshop for the therapeutics committee of Kangaba. Photo credit: Sanoussi Koné, GHSC-PSM

"Antimicrobial resistance (AMR) is now taken seriously by everyone in the health sector." Shares Idrissa Diarra, Deputy Director General of the Dermatology Hospital of Bamako.

The irrational use of antibiotics, known to fuel AMR, is a major concern. According to the World Health Organization (WHO), around 50% of all medicines are prescribed, distributed or sold inappropriately.

Mali has been fighting against this situation for decades. In 2018, the country developed and approved a multisectoral national action plan to combat AMR that included several activities such as providing guidance to hospital practitioners and supervising medicine prescribing practices. For this reason, it was important to implement drug and therapeutics committees (DTC) in health facilities.

DTCs are a proven way to reduce inappropriate practices and to promote sound management of medicines among health care professionals. After a successful piloting phase, a scaling up process is helping the committees become an integral part of Mali's pharmaceutical management.

Piloting the Implementation of Drug and Therapeutics Committees

The US Agency for International Development (USAID), through its Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program, supported the Directorate for Pharmacy and Medicines, the National

About USAID MTaPS

The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018-2023) 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.

www.mtapsprogram.org

Contact: Dr. Safoura Berthé, MTaPS Mali Country Project Director, sberthe@mtapsprogram.org

Agency for Hospital Assessment, and the National Multisectoral Coordination Group for AMR to pilot the implementation of Mali's first DTCs in five sites in 2020: the Point G hospital, the Mère-Enfant hospital, the Sikasso hospital, the Ségou hospital, and the Koutiala *Centre de Santé de Référence*.

MTaPS helped implement the DTCs through activities such as the development of terms of reference for committees and training modules for its members, and building the capacity of facilitators and master trainers on the AWaRe classification—WHO's categorization of antimicrobials to guide their appropriate use—and the functioning of the committees.

This pilot approach enabled the implementation of guidance for the national pharmaceutical policy and management of antibiotics use to combat AMR in all sites. Following the positive results, the Directorate for Pharmacy and Medicines, the National Agency for Hospital Assessment, and the National Multisectoral Coordination Group for AMR, with MTaPS' support, initiated scaling up the approach to 11 other health facilities.

Scaling Up the Implementation of Drug and Therapeutic Committees

MTaPS used the experience of the first five committees for training of staff in the different health facilities, and developed and implemented action plans for the committees in the 11 facilities.

But training staff wasn't enough to ensure the success of the committees as there are many issues that impact the health system in Mali including a lack of personnel and high turnover.

To counter the challenges, MTaPS worked with the DTCs to provide supervision visits to strengthen their visibility in health facilities, discuss the implementation of action plans with committee members, evaluate the indicators of antibiotic prescription, and exchange on the issues and propose solutions. In spite of all these challenges, the work achieved with MTaPS support enabled 82 out of 184 trainees (45%) to stay active in the committees implemented in the 16 supervised facilities and to maintain the level of prescribed medicines in the 'Access' class of the AWaRe classification at 56%, close to WHO's recommendation of at least 60%, a significant achievement since this category regroups the drugs offering the best therapeutic value while minimizing the potential for AMR.

Additionally, the supervision support helped disseminate reference document that will contribute to optimize the use of antimicrobials, including the manual for 2021 on procedures to register and classify human and animal health medicines in Mali.

Many stakeholders were satisfied with the implementation of these committees. Dr. Idrissa Diarra indicates: "All hospitals need this type of committee. On our end, as administrators, we will do everything for the success of this committee."

To continue to make these actions sustainable and committees functional, MTaPS is working with the Directorate for Pharmacy and Medicines to organize regular supervisions for the implementation of action plans, to assess indicators, and share these results with the central level.

Moreover, DTCs have been included in the National Pharmaceutical Policy and the national schema of procurement of medicines which further entrenches sustainability.

Training workshop for the members of the therapeutics committee of Kayes. Photo credit: Ousmane Traoré, MTaPS

USAID FROM THE AMERICAN PEOPLE

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

8. MONITORING, EVALUATION, RESEARCH, & LEARNING

A. MONITORING & EVALUATION

QUARTER 2 PROGRESS

In PY5Q2, the MTaPS home office (HO) MERL team has finalized the monitoring, evaluation, and learning (MEL) plans for all countries and shared the final plans with most countries. Many of these countries have shared the final plans with the Mission and remaining countries are continuing to do so. These MEL plans are reflective of the activities and indicators that have been finalized in the country and portfolio workplans. Considering that this is the last year of the project, the HO MERL team is having regular touch-base meetings with each country MEL point of contact (POC) and country director to ensure that we are approaching the goals with respect to the target by end of PY5. A data use for decision-making knowledge exchange was conducted in February 2023 where the MTaPS Uganda and Mali teams presented their experiences in using data for decision-making with external stakeholders. A data collection and management training course was conducted to go over the key data collection and submission of SOPs. The HO MERL team continued to organize monthly expanded MERL team meetings with the M&E POCs to go over data collection SOPs, maintaining DQA, ways to foster data use for decision-making, etc. The team also discussed the MTaPS endline plan in the country-specific monthly meetings and developed an endline protocol and endline report after extensive discussions within the team and through discussion on specific indicators with the countries. M&E orientation sessions were also organized for new staff that have joined in Mozambique, DRC, and Madagascar.

DEVRESULTS DATA DASHBOARDS

In PY5Q2, DevResults platform continues to be used for data aggregation, validation, and storage. To align with the finalized workplans and MEL plans, indicators continue to be updated if and as needed in DevResults. DevResults has also been used to assess progress towards targets and HO MERL engages regularly with country teams to discuss progress made towards targets. A DevResults refresher training was organized, and Power BI dashboards continue to be used for performance monitoring data visualizations. Country teams have been asked to actively use these dashboards to make inferences about project progress and pause and reflect when needed. The HO M&E team organized a pause and reflect session at the Global MTaPS retreat in Washington D.C., which was attended by the HO and country staff, to review and reflect on the monitoring data infographics and what these numbers imply in terms of the progress made on MTaPS objectives and sub-objectives.

COVID-19 IN-COUNTRY ACTIVITY REPORTS

MTaPS has worked in 11 countries to respond to the COVID-19 pandemic in PY5Q2 (Bangladesh, Cameroon, Côte d'Ivoire, Kenya, Madagascar, Mozambique, Nigeria, Philippines, Rwanda, Senegal, and Tanzania). At the beginning of year 5, COVID-19-related activities were completed in Mali. By the end of PY5Q2, COVID-19 activities were completed in Mozambique. COVID-19 vaccinations support-related activities by MTaPS were also completed in Senegal. MTaPS country teams continue to collect data to track the implementation and progress of MTaPS' COVID-19 activities. Countries have provided

quantitative data on the COVID-19 indicators as well as activity narratives under each COVID-19 result area. The HO M&E team has conducted data validations and has reported on the relevant indicators for all countries in the USAID Development Information Solution. Like every quarter, HO M&E team has also updated the monthly and quarterly data in DevResults. This data, along with monitoring data for other portfolios, will be uploaded on the USAID Development Data Library in May 2023.

DATA QUALITY ASSURANCE AUDIT

The HO M&E team has worked with each country M&E POC to adapt the data quality action plans to each context. Considering that we are approaching project close-out, countries have been advised to identify high priority DQA recommendations. The HO M&E team is working with countries to ensure that these priority actions are implemented to guarantee timely, accurate, relevant, and complete data. All countries are at various stages of adapting their plans, identifying and implementing DQA recommendations. Other than this, HO M&E staff has included and highlighted the DQA recommendations in the DQA SOP, data collection and management SOP, COVID-19 data submission and management SOP, and country MEL plans. The HO M&E team continues to highlight the relevance of maintaining data quality in monthly country-specific and expanded MERL team meetings.

ACTIVITIES & EVENTS FOR NEXT QUARTER

Activity & Description	Date
MTaPS endline data mapping using performance monitoring data in DevResults	May 1, 2023 onwards
M&E close-out planning with countries	Ongoing
Promoting Power BI dashboard use	Ongoing
Promoting data use for decision making	Ongoing
M&E contributions to the end of project report	June 1, 2023 onwards

B. KNOWLEDGE MANAGEMENT AND LEARNING

QUARTER 2 PROGRESS

PSS IN PRACTICE KNOWLEDGE EXCHANGE

During Quarter 2, MTaPS held three knowledge exchanges to share achievements, lessons, best practices, and knowledge from implementation experience.

Integration of the WHO Antibiotics AWaRe Categorization in National Antimicrobial Stewardship Programs: Experiences from MTaPS-Supported Countries. On January 31, 2023, Fozo Alombah, Principal Technical Advisor, presented the process for integrating AWaRe categorization into AMS programs of MTaPS-supported countries and shared lessons learned from the experience.

Data Use in Decision-Making: Uganda and Mali Experience. On February 21, 2023, Sadhvi Kalra, Monitoring and Evaluation Advisor, MTaPS; John Waswa, Senior Technical Advisor, MTaPS Uganda; and Bréhima Simpara, Monitoring and Evaluation Specialist, MTaPS Mali, presented on how MTaPS and supported countries are making data-driven programmatic decisions for performance improvement.

Strengthening functionality of Infection Prevention and Control (IPC) committees in Côte d'Ivoire. On March 21, 2023, Ange-Fulgence Ouffoue, Senior Technical Advisor, IPC, MTaPS Côte d'Ivoire, presented on using the CQI approach to strengthen IPC committees, and the factors that enable sustainability of IPC committees.

TECHNICAL DOCUMENTATION

During Quarter 2, MTaPS developed 22 products to answer learning questions:

Asia Bureau: Guidance for Policy Makers on Using the OneHealth Tool for Budget Allocation of Pharmaceuticals. MTaPS drafted a technical highlight on strategies and information that policymakers need to consider for using the OHT to appropriately allocate budgets for pharmaceuticals. This product answers the following learning question: What strategies and information are required for policy makers in the Ministry of Health through using the OHT, to appropriately allocate budgets for pharmaceuticals?

Strengthening Use of Data for Decision Making in Bangladesh. MTaPS drafted a technical highlight on efforts to implement information management systems (DGFP eLMIS, DGHS eLMIS, e-TB Manager, and QuanTB) that facilitate data-driven decision making by system users and managers. This product answers 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 Capacity for AMS & IPC Practices in Bangladesh. MTaPS drafted a technical brief on supporting AMS and IPC governance structures at the national and subnational level, conducting facility-level IPC assessments, and building capacity for improved IPC and AMS practices. This product answers the following learning question: What are the primary barriers and enablers for building institutional capacity in both AMS and IPC? How can these barriers and enablers be best institutionalized in the Bangladeshi context?

Building Capacity to Implement e-TB Manager Across Bangladesh. MTaPS completed a technical highlight 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 product answers the following learning question: What are the critical success factors in the implementation and use of e-TB Manager in Bangladesh?

Advancing Global Health Security through Multisectoral Coordination in Côte d'Ivoire. MTaPS finalized a technical brief on MSC activities in Côte d'Ivoire, including establishing national coordination mechanisms, establishing CQI processes at the health facility level, and conducting onsite supervision and coaching, which resulted in improved IPCAF scores at supported health facilities. This product answers the following learning question: How have the AMR governance bodies been strengthened? What evidence exists of their increased functionality?

Improving functionality of DTCs and implementation of AMS in Côte d'Ivoire. MTaPS drafted 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 product answers the following learning question: How has the functionality of DTCs improved with MTaPS-supported interventions?

Strengthening Antimicrobial Stewardship in Ethiopia. MTaPS drafted 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 product answers 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 Multisectoral Coordination for Combating AMR in Ethiopia. MTaPS drafted a technical brief on strengthening governance structures for effective coordination of AMR containment in Ethiopia. This product answers the following learning question: What are the critical drivers for sustainable improvements in MSC on AMR?

Mapping Pharmaceutical Expenditure Data Sources in Indonesia. MTaPS drafted 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 product answers 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?

Stakeholder Engagement to Improve Indonesia's HTA Topic Selection Process. MTaPS drafted 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 product answers the following learning question: 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?

Strengthening Multisectoral Coordination to Contain Antimicrobial Resistance (AMR) in Kenya. MTaPS drafted 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 product answers the

following learning question: What are the factors enabling or hindering MSC on AMR at the national and MTaPS–focus county levels? How can MSC be sustained?

Strengthening IPC and AMS Governance Structures for AMR Containment in Kenya. MTaPS drafted 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 product answers the following learning question: What are some of the incentives and enablers for the effective and sustainable functioning of IPC and MTC/AMS committees?

Strengthening Multisectoral Coordination (MSC) on Antimicrobial Resistance (AMR) at the National Level in Mali. MTaPS drafted a technical brief on supporting the national MSC committee (GCMN-RAM) and its IPC and AMS TWGs through activities aimed at strengthening MSC for AMR containment. This product answers the following learning question: What are the key factors enabling or hindering MSC on AMR at the national level?

Helping Hospitals Prioritize IPC Interventions for AMR Containment in Mozambique. MTaPS drafted a technical brief describing efforts to improve IPC at the national and health facility level by using WHO tools for systematic assessment, programming, prioritization, and monitoring of IPC activities. This product answers the following learning question: How have IPCAF health assessments helped prioritize key IPC activities?

Strengthening Multisectoral Coordination for Containing Antimicrobial Resistance in Nigeria. MTaPS drafted 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 product answers the following learning question: What are the critical drivers for improving MSC on AMR?

Strengthening Infection Prevention and Control in Nigeria. MTaPS drafted a technical brief on efforts to strengthen governance and capacity for IPC at the national, state, and health facility levels in Nigeria. This product answers 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?

Strengthening Antimicrobial Stewardship in Nigeria. MTaPS finalized a technical brief that summarizes the program's efforts to improve Nigeria's JEE score for AMS by supporting WHO IHR benchmark actions and strengthening the implementation of AMS programs in select health facilities. This product answers the following learning question: What are the primary barriers to building institutional capacity in AMS? How can these barriers be overcome in the Nigerian context?

Implementing a Quality Management System (QMS) for the Rwanda Food and Drugs Authority (RFDA). MTaPS drafted a brief summarizing program support to the Rwanda FDA in strengthening the quality of its regulatory services through implementation of a QMS. This product answers the following learning question: What is the effect of the QMS implementation on the quality of the Rwanda FDA's regulatory services?

Rwanda: Introducing PViMS for Spontaneous Reporting of Adverse Drug Effects. MTaPS drafted 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 product answers 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 drafted a technical brief 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 product answers the following learning question: What is the level of adherence to IPC standards in MTaPS-supported facilities?

Improving Infection Prevention and Control in Tanzania. MTaPS drafted 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 product answers 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 drafted 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 product answers the following learning question: What factors facilitate adherence to AWaRe antibiotics categorization guidelines in health facilities?

During Quarter 2, MTaPS developed 11 knowledge products:

Asia Bureau: Managing Conflicts of Interest in Public Pharmaceutical Committees. MTaPS drafted a technical brief on developing a manual for managing COI in public pharmaceutical agencies for stronger pharmaceutical management in LMICs.

Asia Bureau: OneHealth Tool. MTaPS finalized a technical brief focused on the OHT, an open-source health planning and costing tool; its implementation in Bangladesh; and recommendations for decision-makers on future use of the tool.

Asia Bureau: Regulatory Workforce Competency Mapping. MTaPS drafted 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.

Inclusion of the Electronic Asset Management System (eAMS) in Bangladesh's Fifth Health Sector Program. MTaPS drafted 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.

Implementing Active Safety Surveillance for the TLD Drug Treatment Regimen for HIV Treatment in Mozambique. MTaPS drafted a technical brief on monitoring AEs in patients newly placed on a TLD regimen to improve the process of care and treatment outcomes for people with HIV/AIDS.

Strengthening Nepal's National Pharmacovigilance System. MTaPS drafted a technical brief describing review of the WHO GBT assessment report of Nepal for vigilance and development of an action plan to collaborate with national stakeholders to improve the vigilance maturity level.

Implementation of AMS in Nigeria: The effect of interprofessional collaboration in achieving AMS target at Enugu State University Teaching Hospital (ESUTH). MTaPS drafted 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 ESUTH.

Development and Pilot Implementation of eLMIS at Regional Offices across the Philippines. MTaPS drafted a technical highlight on development and implementation of an eLMIS for addressing PSCM challenges in the Philippines.

Facilitating Peer-to-Peer learning: Practical Exchange of Knowledge, Skills, and Best Practices toward Antimicrobial Resistance Containment in Uganda. MTaPS drafted a technical highlight on the program's logistical and technical support for peer-to-peer learning among health care workers to strengthen their capacity to address AMR containment.

Implementation of Centers of Excellence (COEs) for AMS in Uganda: Progress to Date and Measurement of the Impact of CQI Interventions. MTaPS finalized a technical brief on its support to establish AMS COEs in Uganda, which resulted in greater adherence to STGs, optimized use of antibiotics, greater utilization of Access classification antibiotics, and a reduction in utilization of Watch and non-recommended classification of antibiotics.

Lessons Learned from the Implementation of IPC Programs in Uganda. MTaPS drafted a technical brief on improving IPC practices in Uganda through assessments, drafting of CQI plans, and supportive supervision, which resulted in increased hand hygiene knowledge scores among MTaPS-supported health facilities.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
MTaPS PSS in Practice Knowledge Exchanges	April–June 2023
Technical documentation: Next quarter, MTaPS will draft five products to answer these learning questions: ▪ Burkina Faso: What are the key factors enabling or hindering MSC on AMR at the national level? How can MSC efforts be sustained? (Technical brief) ▪ Cameroon: What are the critical lessons learned in the strengthening of MSC bodies on AMR? (Technical highlight) ▪ Jordan: What approaches are effective for building institutional and health facility capacity in rational use of antibiotics and IPC? (Technical highlight) ▪ Jordan: What factors contribute to sustaining improvements in governance in pharmaceutical systems? (Technical highlight) ▪ Mali: What are the key factors enabling or hindering MSC on AMR at the national level? (Technical highlight) Next quarter, MTaPS will develop three knowledge products: ▪ Côte d'Ivoire: COVID-19 Vaccination (Technical brief) ▪ Democratic Republic of the Congo: Capacity Building of Community Representatives on the Early Detection of TB in DRC (Technical brief) ▪ Philippines: Development and implementation of PIES (Technical brief)	April–June 2023

C. RESEARCH

QUARTER 2 PROGRESS

This quarter, MTaPS published an opinion paper in *Frontiers in Antibiotics* entitled, "Gaps in data collection for sex and gender must be addressed in point prevalence surveys on antibiotic use". The paper uses MTaPS' experience in implementing the WHO's PPS on antibiotic use to highlight gaps and make recommendations regarding the inclusion of sex and gender as important factors that impact AMR. MTaPS also published a brief report entitled, "Identifying and addressing challenges to antimicrobial use surveillance in the human health sector in low- and middle-income countries: experiences and lessons learned from Tanzania and Uganda in BMC Antimicrobial Resistance and Infection Control". The paper was published as part of the journal's special supplement—*Combatting antimicrobial resistance in Africa through surveillance and capacity building*.

In March, the program also had two additional papers accepted for publication. *One Health Outlook* notified MTaPS that the journal had accepted the manuscript, "Moving from Assessments to Implementation: Promising Practices for Strengthening Multisectoral Antimicrobial Resistance Containment Capacity" for publication. The manuscript entitled "Contracting retail pharmacies as a source of essential medicines for public sector clients in low- and middle-income countries: A scoping review of key considerations, challenges, and opportunities" was accepted by *Journal of Pharmaceutical Policy and Practice*.

MTaPS also continued work on several manuscripts:

- Under Cross Bureau, the team drafted the manuscript "Integration of IPC/WASH critical conditions into quality of care and quality improvement tools and processes: Bangladesh case study" and submitted for peer review. Originally developed as a research article, the team is now reworking the manuscript as a short report for peer review resubmission.
- The MTaPS Indonesia team finalized and submitted a manuscript entitled "Refining the HTA Topic Selection Criteria in Indonesia" for peer review.
- Under the Nepal portfolio, the team is finalizing the manuscript "Implementation of good pharmacy practice in private and public sector pharmacies in Nepal" for submission.

The program continues with its implementation of several research studies:

- Under the Commodity Security and Logistics (CSL) portfolio, MTaPS is conducting an impact evaluation of a client, stock, and workflow management application on unmet family planning need at the last mile in Luapula Province, Zambia. MTaPS is equipping community-based distributors (CBDs) with tablets configured with the application. This quarter, the team completed the baseline report and received feedback from USAID. The team also completed development of the application, and procurement and configuration of the requisite devices. On March 27, 2023, the team started a two-week training with four cohorts of CBDs so they can learn to use the application. This will be followed by a two-week practice period before going live on May 1. The team will then follow up with monthly supervisory visits and collect endline data six months post-intervention.
- Also under the CSL portfolio, MTaPS is conducting a study on disability inclusion in the health supply chain workforce in low- and middle-income countries. The team completed a landscape analysis this

quarter and has started recruitment for a consultant to support a case study in Ethiopia. The findings from the landscape analysis and case study will inform recommendations for USAID and its partners in advising governments on interventions for enhancing inclusive employment practices in health supply chains.

- Under Cross Bureau, MTaPS is wrapping up a three-country case study of the mandate, function, and structure of national pharmaceutical services units (NPSUs). This quarter, the team completed case and cross-case analysis for Côte d'Ivoire and Kenya and drafted a preliminary report. Data collection in Nepal is delayed but should hopefully be completed by the end of April. In the interim, the team will be presenting the preliminary findings to its technical working group for feedback in April before drafting guidance on what should be the minimal roles and responsibilities of NPSUs.
- The Nepal team is conducting a study of good distributor and supplier practice in Nepal and Uganda. This quarter, the team completed data collection for Nepal and has started data cleaning and analysis; data collection for Uganda is still in progress.

With respect to conference participation, MTaPS submitted a proposal to the SAPICS organizing committee for their annual conference slated for June 11-14, 2023, in Cape Town, South Africa. The proposal included a PSS skills building workshop and a panel on the centrality of governance and medicines regulation in building efficient adaptive health supply chains. The proposal represents part of the PSS learning series activity being implemented under Cross Bureau. MTaPS also submitted an abstract entitled "Digitalizing National Medicines Regulatory Authorities" for oral presentation to the Africa Digital Health Summit (ADHS), scheduled for June 22-23, 2023, in Lagos, Nigeria.

ACTIVITIES AND EVENTS FOR NEXT QUARTER

Activity and Description	Date
Prepare for SAPICS and ADHS participation pending abstract and proposal acceptance	May 2023
Next steps for the research studies are included in the respective activity descriptions under their portfolio sections of the report.	April–June 2023

9. ANNEXES

ANNEX 1. MTAPS INDICATORS

Annex Table 1. 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	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 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					
	Bangladesh		No	Yes	Yes	Yes					
	Burkina Faso		No	No	Yes	No					
	Cameroon		No	No	No	No					
	Côte d'Ivoire		No	No	No	No					
	DRC		No	Yes	Yes	Yes					
	Ethiopia		No	No	No	Yes					
	Kenya		No	No	No	No					
	Mali		No	No	No	No					
	Mozambique		No	No	No	No					
	Nigeria		No	No	No	No					
	Senegal		No	Yes	Yes	Yes					
	Tanzania		No	Yes	Yes	Yes					
GH-IO 2	Has the country implemented WHO AWaRe categories (yes/no)?	Annually	1/12	3/12	8/12	7/12					
	Bangladesh		Yes	Yes	Yes	Yes					
	Burkina Faso		No	No	Yes	Yes					
	Cameroon		No	No	No	No					
	Côte d'Ivoire		No	No	No	No					
	DRC		No	Yes	Yes	Yes					
	Ethiopia		No	No	Yes	Yes					
	Kenya		No	No	Yes	Yes					
	Mali		No	No	Yes	No					
	Mozambique		No	No	No	No					
	Nigeria		No	No	No	No					
	Senegal		No	No	Yes	Yes					
	Tanzania		No	Yes	Yes	Yes					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
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					
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					
	Nepal		Yes	Yes	Yes	N/A					
MNCH 17[11]	# of countries participating in the dissemination of the regulation guidelines for medical devices	Annually	0	0	0	N/A					
MNCH 18[12]	# of MNCH medical devices included in the guidelines	Annually	N/A	N/A	0	N/A					
MNCH 19	# of stakeholders from regulatory authorities and manufacturers of oxygen participating in the dissemination and adoption of the oxygen regulatory framework	Annually	0	0	0	N/A					
MNCH 4	# of oxygen manufacturers committed to addressing weaknesses identified	Annually	0	0	0	N/A					
MNCH 6	# of countries using the RMNCH forecasting supplement	Annually	0	N/A	5	8					

[11] This is an ongoing activity from Y3 work plan and data will be available end of year 5.
[12] This is an ongoing activity from Y3 work plan and data will be available end of year 5.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
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					
MNCH 10	# of MTaPS-supported NMRAs implementing improved registration practices relevant for MNCH medical products	Semiannually	0	1	N/A	1	0[13]				
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		0[14]				
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					
MNCH 22	# of countries in selected region implementing regulation of medical devices	Semiannually	0	N/A	N/A	N/A	0[15]				
MNCH 23	# of countries participating in the joint assessment of MNCH medical devices	Annually	N/A	N/A	N/A	N/A	N/A				

[13] This is the number of countries participating/engaged in regional registration activity from Y4 WP. Data expected to become available by end of PY5 Q3.
[14] This is the number of countries participating/engaged in regional registration activity from Y4 WP. Data expected to become available by the end PY5 Q3.
[15] This activity planned in year 4 is ongoing and data will be available in PY5Q3.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
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	N/A				
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	N/A				
MNCH 26	# of countries participating in the dissemination of the oxygen quality assurance resource document	Annually	N/A	N/A	N/A	N/A	N/A				
MT 1.1.1	# of entities that have clarified roles and responsibilities in pharmaceutical systems and made information publicly available with MTaPS support	Annually	0	3	11	6					
	Bangladesh		0	2	1	2					
	DRC		N/A	N/A	N/A	N/A					
	Indonesia		0	N/A	2	N/A					
	Jordan		0	0	0	3					
	Nepal		0	0	0	N/A					
	Rwanda		0	1	4	1					
	IGAD		0	0	4	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					
	DRC MNCH		0	0	29	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)					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	IGAD		0	N/A	100% (2/2)	N/A					
	Mali		0	N/A	N/A	0% (0/1)					
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					
	Asia Bureau		0	0	1	4					
	Bangladesh		0	2	2	5					
	Burkina Faso PV		0	1	0	N/A					
	Cross Bureau		0	N/A	N/A	1					
	Global MNCH		0	1	0	N/A					
	Indonesia		0	N/A	0	N/A					
	Jordan		0	0	0	0					
	Mali MNCH		0	N/A	N/A	1					
	Mozambique		0	1	2	N/A					
	Nepal		0	N/A	3	6					
	Philippines		0	0	3	1					
	Rwanda		0	26	17	0					
	Tanzania PEPFAR		0	N/A	2	2					
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					
PP 1.2.1	# of health workers who received in-service training using non-traditional platforms on PSS, PSCM, or PV with MTaPS support	Quarterly	0	0	N/A	1,872	1,048	Data not available[16]			
MT 1.2.2	# of pharmaceutical regulatory enforcement mechanisms established or strengthened with MTaPS support	Semiannually	0	0	5	8	1				
	Burkina Faso		0	N/A	N/A	N/A	0				
	Global MNCH		0	N/A	0	N/A	0				
	Mozambique		0	0	2	N/A	N/A				
	Rwanda		0	0	2	8	1				

[16] Indicator data are collected through government sources that were not available at the time of data collection.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	Tanzania PEPFAR		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)				
	Bangladesh		50%	100% (2/2)	100% (8/8)	100% (2/2)	100% (1/1)				
	Mozambique		0%	22% (2/9)	67% (2/3)	N/A	N/A				
	Rwanda		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					
	Jordan		0	0	0	0					
	DRC MNCH		0	0	1	1					
PP 1.3.1	% of USG-supported facilities using MTaPS-supported eLMIS	Quarterly	0	N/A	N/A	Data not reported	37% (12/32)	Data not available[17]			
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					
	Jordan		0	0	0	0					
MT 2.1.2	# of MTaPS-supported health professional training curricula developed or revised to address pharmaceutical management topics	Annually	0	5	2	7					
	Asia Bureau		0	N/A	1	2					
	Bangladesh		0	4	0	1					
	IGAD		0	1	1	N/A					

[17] Indicator data are collected through government sources that were not available at the time of data collection.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result		PY5Q4 Result		PY5 Cumulative Result	
	Jordan		0	N/A	N/A	4										
MT 2.2.2	# of persons trained in pharmaceutical management with MTaPS support	Quarterly	0	1,827	12,480	9,862	2,180		1,628							
	Asia Bureau		0	N/A	101	413	*Female*	19	*Female*	9	*Female*		*Female*			
							Male	6	*Male*	6	*Male*		*Male*			
							Unknown	80	*Unknown*	0	*Unknown*		*Unknown*			
							Total	105	***Total***	15	***Total***		***Total***			
	Bangladesh		0	1,678	2856	3,013	*Female*	256	*Female*	60	*Female*		*Female*			
							Male	67	*Male*	456	*Male*		*Male*			
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*			
							Total	323	***Total***	516	***Total***		***Total***			
	Burkina Faso		0	N/A	N/A	N/A	*Female*	10	*Female*	10						
							Male	22	*Male*	22						
							Unknown	0	*Unknown*	0						
							Total	32	***Total***	32						
	Cross Bureau		0	N/A	N/A	124	*Female*	0	*Female*	54	*Female*		*Female*			
							Male	0	*Male*	106	*Male*		*Male*			
							Unknown	0	*Unknown*	411	*Unknown*		*Unknown*			
							Total	0	***Total***	571	***Total***		***Total***			
	DRC MNCH		0	N/A	373	192	*Female*	3	*Female*	N/A	*Female*		*Female*			
							Male	8	*Male*		*Male*		*Male*			
							Unknown	0	*Unknown*		*Unknown*		*Unknown*			
							Total	11	***Total***		***Total***		***Total***			
	DRC Supply Chain		N/A	N/A	N/A	0	*Female*	N/A	*Female*	N/A	*Female*		*Female*			
							Male		*Male*		*Male*		*Male*			
							Unknown		*Unknown*		*Unknown*		*Unknown*			
							Total		***Total***		***Total***		***Total***			
	IGAD		0	N/A	843	23	*Female*	N/A	*Female*	N/A	*Female*		*Female*			
							Male		*Male*		*Male*		*Male*			
							Unknown		*Unknown*		*Unknown*		*Unknown*			
							Total		***Total***		***Total***		***Total***			
	Indonesia		0	N/A	0	251	*Female*	14	*Female*	0	*Female*		*Female*			
							Male	3	*Male*	3	*Male*		*Male*			
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*			
							Total	17	***Total***	3	***Total***		***Total***			
	Jordan		0	N/A	N/A	50	*Female*	213	*Female*	96	*Female*		*Female*			
							Male	160	*Male*	70	*Male*		*Male*			
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*			
							Total	373	***Total***	166	***Total***		***Total***			

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result		PY5Q4 Result		PY5 Cumulative Result	
	Mali MNCH		0	N/A	N/A	8	*Female*	N/A	*Female*	4	*Female*		*Female*			
							Male		*Male*	8	*Male*		*Male*			
							Unknown		*Unknown*	0	*Unknown*		*Unknown*			
							Total		***Total***	12	***Total***		***Total***			
	Mozambique		0	105	21	125	*Female*	N/A	*Female*	N/A	*Female*		*Female*			
							Male		*Male*		*Male*		*Male*			
							Unknown		*Unknown*		*Unknown*		*Unknown*			
							Total		***Total***		***Total***		***Total***			
	Nepal		0	N/A	38	121	*Female*	N/A	*Female*	N/A						
							Male		*Male*							
							Unknown		*Unknown*							
							Total		***Total***							
	Philippines		0	N/A	7,615	5,191	*Female*	748	*Female*	Data not available[18]	*Female*		*Female*			
							Male	300	*Male*		*Male*		*Male*			
							Unknown	0	*Unknown*		*Unknown*		*Unknown*			
							Total	1,048	***Total***		***Total***		***Total***			
	Rwanda		0	44	603	246	*Female*	113	*Female*	113	*Female*		*Female*			
							Male	190	*Male*	200	*Male*		*Male*			
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*			
							Total	303	***Total***	313	***Total***		***Total***			
	Rwanda PEPFAR		0	N/A	N/A	78	*Female*	N/A	*Female*	N/A	*Female*		*Female*			
							Male		*Male*		*Male*		*Male*			
							Unknown		*Unknown*		*Unknown*		*Unknown*			
							Total		***Total***		***Total***		***Total***			
	Tanzania PEPFAR		N/A	N/A	30	27	*Female*	N/A	*Female*	N/A	*Female*		*Female*			
							Male		*Male*		*Male*		*Male*			
							Unknown		*Unknown*		*Unknown*		*Unknown*			
							Total		***Total***		***Total***		***Total***			
MT 2.2.3	# of in-person or e-Learning courses developed with MTaPS assistance	Annually	0	1	11	11										
	Asia Bureau		0	N/A	3	2										
	Bangladesh		0	0	0	N/A										
	Cross Bureau		0	1	1	2										
	IGAD		N/A	N/A	0	N/A										
	Mozambique		0	0	1	1										
	Philippines		0	0	4	6										
	Rwanda		0	0	2	N/A										

[18] Indicator data are collected through government sources that were not available at the time of data collection.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
MT 2.2.4	# of people successfully completing MTaPS-developed e-Learning courses	Quarterly	0	65	6,917	4,227	1,180	528			
	Asia Bureau		0	0	52	0	*Female* N/A *Male* N/A *Unknown* N/A ***Total*** N/A	*Female* N/A *Male* N/A *Unknown* N/A ***Total*** N/A	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Bangladesh		0	0	0	0	*Female* 0 *Male* 0 *Unknown* 0 ***Total*** 0	*Female* 8 *Male* 109 *Unknown* 0 ***Total*** 117	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Côte d'Ivoire		0	N/A	N/A	N/A	*Female* 0 *Male* 0 *Unknown* 0 ***Total*** 0	*Female* 0 *Male* 0 *Unknown* 0 ***Total*** 0	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Cross Bureau		0	6	8	208	*Female* 0 *Male* 0 *Unknown* 418 ***Total*** 418	*Female* 0 *Male* 0 *Unknown* 411 ***Total*** 411	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Mozambique		0	65	0	0	*Female* N/A *Male* N/A *Unknown* N/A ***Total*** N/A	*Female* N/A *Male* N/A *Unknown* N/A ***Total*** N/A	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Philippines		0	0	6857	3,892	*Female* 547 *Male* 215 *Unknown* 0 ***Total*** 762	*Female* *Male* *Unknown* ***Total*** Data not available[19]	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Rwanda		0	0	0	127	*Female* N/A *Male* N/A *Unknown* N/A ***Total*** N/A	*Female* N/A *Male* N/A *Unknown* N/A ***Total*** N/A	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
MT 2.4.1	# of days reduced for product registration in countries with MTaPS-supported national medicines registration authority	Annually	0	0	180	0					
	Mali MNCH		0	N/A	N/A	0					

[19] Indicator data are collected through government sources that were not available at the time of data collection.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
MT 2.4.2	# of premises inspected by MTaPS-supported NMRAs	Annually	0	N/A	N/A	3,751					
	Nepal		0	N/A	N/A	3,751					
MT 2.4.3	# of regional harmonization initiatives with participation by MTaPS-supported NMRAs	Annually	0	0	3	10					
	Asia Bureau		0	N/A	1	10					
	IGAD		0	N/A	2	N/A					
	Mozambique		0	0	0	N/A					
MT 2.4.4	# of countries that have conducted an assessment at any level of the regulatory system	Annually	Yes	Yes	Yes	Yes					
	Nepal		Yes	Yes	Yes	Yes					
MT 2.4.5	# of medicines with current valid registration	Annually	0	N/A	N/A	60					
	Mali MNCH		0	N/A	N/A	60					
NP 1	% of USG-assisted organizations with improved performance	Annually	0	0%	0%	0% (0/1)					
NP 2	# of wholesalers inspected according to the new Good Distribution Practices inspection guidelines	Annually	0	0	0	22					
NP 3	# of public- and private-sector pharmacies inspected according to the new Good Pharmacy Practices inspection guidelines	Annually	0	0	12	N/A					
NP 4	# of innovations supported through USG assistance	Annually	0	0	2	4					
NP 5	% of surveyed medicines labeled in compliance with labeling requirements	Annually	8.7%	N/A	8.7%	0%					
NP 6	% of private-sector pharmacies surveyed dispensing prescription medicines without prescription	Annually	25%	N/A	25%	N/A					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
NP 8	# of monitoring visits in which GON participates	Annually	0	N/A	2	6					
PP 1.5.1	# of TB and FP commodities for which a quantification process is completed with MTaPS support	Annually	0	0	0	6					
PP 1.5.2	# of TB and FP commodities procured by DOH through FAs, pooled procurement, or other innovative procurement mechanisms with support from MTaPS	Annually	0	0	0	0					
PP 2.2.1	# of TB and FP products registered in the Philippines with MTaPS support	Annually	0	0	0	9					
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					
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)					
DRC 3	# of HFs that are implementing the post-training action plan	Annually	0	0	0	50					
DRC 4	% of facilities implementing appropriate storage of oxytocin	Quarterly	0	0	0	75% (54/72)	76% (55/72)	83% (60/72)			
DRC 5	# of DPS and/or IPS using the updated directory of registered medicines	Semiannually	0	0	0	8	4				

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
MT 3.1.1	# and % 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% (6434/ 7565)	72% (8,957/12,367)	66% (5,137/7,716)				
	Bangladesh		61% (61/100)	88% (3,875/4,396)	77% (4734/ 6173)	72% (4,418/6,106)	66% (5,132/7,711)				
	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					
	Bangladesh		0	Yes	Yes	Yes					
	Mozambique		0	No	No	No					
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% (4293/4680)	76% (4588/6003)	72% (18,362 /25,490)	77% (5,114/6,678)	75% (5,209/6,930)			
	Bangladesh		74.3% (84/115)	92% (4293/4680)	77% (4488/5826)	74% (4830/6500)	*Hospitals* 65% (211/325) *Other* 77% (4,791/6,176) ***Total*** 77% (5,002/6,501)	*Hospitals* 63% (206/325) *Other* 76% (4,729/6,176) ***Total*** 76% (4,935/6,501)	*Hospitals* *Other* ***Total***	*Hospitals* *Other* ***Total***	
	DRC MNCH		42% (74/177)	Data not reported	56% (100/177)	74% (132/177)	*Hospitals* 100% (10/10)	*Hospitals* 85% (12/14)	*Hospitals*	*Hospitals*	

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
							Health centers 79% (122/155) *Other* 83% (10/12) ***Total*** 80% (142/177)	*Health centers* 63% (262/415) *Other* 0% (0/0) ***Total*** 64% (274/429)	*Health centers* *Other* ***Total***	*Health centers* *Other* ***Total***	
MT 3.3.2	# of PSS technical documents authored by MTaPS	Semiannually	0	14	39	56	18				
	Asia Bureau		0	N/A	N/A	0	1				
	CSL		0	N/A	1	10	0				
	Cross Bureau		10	13	10	11	7				
	Indonesia		0	N/A	0	7	4				
	Jordan		0	N/A	N/A	2	N/A				
	Global MNCH		0	1	1	9	4				
	Mozambique		0	N/A	N/A	N/A	0				
	Rwanda		0	N/A	27	17	2				
MT 3.3.3	# of activities to engage with stakeholders to advance the PSS global learning agenda	Quarterly	0	4	12	64	28	8			
	Asia Bureau		0	N/A	N/A	1	1	1			
	*CSL**		0	N/A	0	16	N/A	N/A			
	Cross Bureau		0	11	12	31	19	2			
	Indonesia		0	N/A	0	16	8	5			
	Mozambique		0	N/A	N/A	N/A	N/A	0			
PP 3.1	# of joint success stories produced	Annually	0	2	3	2					
PP 3.4	# of gender assessments, analyses, studies, or research conducted by MTaPS on PSCM and PV	Annually	0	0	1	1					
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				

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
MNCH 19	# of tailored tools developed for prequalification of suppliers, tender invitation, and conduct of restricted tenders for prequalified suppliers	Annually	0	0	N/A	N/A					
MNCH 15	# of oxygen manufacturers committed to addressing weaknesses identified	Annually	N/A	N/A	0	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					
	Indonesia		0	N/A	N/A	N/A					
	DRC Supply Chain		0	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					
	Bangladesh		0	1	N/A	N/A					
MT 4.2.2	Has the country established a national-level, multi-stakeholder platform for evidence-based PBP decision making (yes/no)?	Annually	0	N/A	0	N/A					
	Indonesia		0	N/A	0	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	1				
	Bangladesh		0	2	0	0	N/A				
	Indonesia		N/A	N/A	N/A	2	1				
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					
	Indonesia		N/A	N/A	No						

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
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					
	Indonesia		N/A	N/A	Yes	Yes					
MT 4.3.3	Does the country have system(s) to track pharmaceutical expenditures (yes/no)?	Annually	N/A	N/A	N/A	No					
	Indonesia		N/A	N/A	N/A	No					
MT 4.3.4	Has the country reduced the value of product losses (due to expired medicines or damage or theft) per value of commodities received (yes/no)?	Annually	N/A	N/A	0	N/A					
	Indonesia		N/A	N/A	0						
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					
MT 5.1.1	% of SDPs with stock-out of FP, TB, and HIV-AIDS tracer commodities	Quarterly	40.5%	45% (5,896/13,114)	31% (5,661 /18,258)	37% (15,398 /40,738)	33% (4,517/13,682)	Data not available[20]			
	Philippines		40.5%	45% (5,896/13,114)	31% 5,661/18,258)	37% (15,398 /40,738)	33% (4,517/13,682)	Data not available			
	First-line TB meds (4 FDC)		40.5%	52% (929/1,784)	21% (358/1,705)	23% (1,085/4,703)	19% (291/1,541)	Data not available			
	TB pediatric med (4 FDC)		90.6%	97% (506/519)	49% (694/1,418)	53% (1,966/3,706)	44% (522/1,189)	Data not available			
	TB preventive treatment (for children)		63.8%	77% (582/753)	81% (967/1,189)	86% (1,6631,940)	N/A	Data not available			
	TB second-line drug (levofloxacin 500 mg)		N/A	64% (127/199)	10% (18/186)	3.5% (7/198)	3% (6/182)	Data not available			
	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)	4% (7/182)	Data not available			
	TB second-line drug (bedaquiline)		N/A	47% (95/199)	8% (14/183)	4.5% (9/198)	7% (13/182)	Data not available			

[20] Indicator data are collected through government sources that were not available at the time of data collection.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	GeneXpert cartridges		N/A	3% (13/395)	14% (46/338)	30% (367/1,207)	95% (694/728)	Data not available[21]			
	FP injectable		30.2%	27% (466/1703)	22% (500/2,237)	28% (1,420/5,017)	29% (495/1,714)	Data not available			
	FP implant		52.7%	69% (796/1150)	42% (784/1,879)	50% (2,022/4,208)	44% (572/1,292)	Data not available			
	FP oral COC		25.6%	24% (418/1716)	14% (318/2,273)	34% (1,734/5,062)	35% (602/1,734)	Data not available			
	FP oral POP		69.3%	52% (715/1374)	24% (540/2,229)	22% (1,101/5,053)	20% (350/1,738)	Data not available			
	IUD		36.7%	37% (466/1264)	41% (836/2,022)	43% (1,892/4,369)	39% (567/1,458)	Data not available			
	Male condom		38.9%	36% (592/1661)	25% (568/2,249)	20% (1,036/5,059)	23% (398/1,742)	Data not available			
MT 5.1.1 (FP)	Stock-out rates of tracer medicines in MTaPS-supported HFs (FP)	Semiannually	0%	N/A	N/A	.00116 (70/60,363)	.06% (17/30,402)				
	Bangladesh						.06% (17/30,402)				
MT 5.1.1 (MNCH)	Stock-out rates of tracer medicines in MTaPS-supported HFs (MNCH)	Semiannually	0%	N/A	N/A	N/A	32% (15,571/48,530)				
	Bangladesh						32% (15,571/48,530)				
MT 5.1.2	% of tracer products stocked according to plan	Semiannually	0%	N/A	28% (52/186)	28% (25/88)	100% (22/22)				
	Bangladesh		0%	N/A	0% (0/7)	50% (3/6)	N/A				
					92% (12/13)	50% (3/6)	N/A				
					14% (1/7)	0	N/A				
					0% (0/7)	0	N/A				
	DRC MNCH		0%	N/A	37% (14/38)	56% (11/19)	*Stocked according to plan*	100% (22/22)			
					42% (16/38)	26% (5/19)	*Overstocked*	0% (0/22)			
					18% (7/38)	16% (3/19)	*Understocked*	0% (0/22)			
					53% (2/38)	0% (0/19)	*Stocked out*	0% (0/22)			

[21] Indicator data are collected through government sources that were not available at the time of data collection.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
MT 5.1.2 (FP)	% of tracer products stocked according to plan (FP)	Semiannually	0%	N/A	N/A	50% (12/14)	33% (6/18)				
	Bangladesh		0%	N/A	N/A	50% (12/14)	33% (6/18)				
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				
						N/A	N/A				
						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)	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)	*Hospitals*	100% (10/10)			
							Health Centers	100% (10/10)			
							Pharmacies	0% (0/0)			
							Other	0% (0/0)			

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
							Total 100% (20/20)				
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)	83% (75/90)	71% (64/90)			
	Bangladesh		31% (31/100)	3% (3/100)	56% (28/50)	58% (38/65)	*Pharmacies* 77% (50/65) ***Total*** 77% (50/65)	*Pharmacies* 60% (39/65) ***Total*** 60% (39/65)	*Pharmacies* ***Total***	*Pharmacies* ***Total***	
	IGAD		0%	Data not reported	24% (10/41)	6.5% (8/123)	*Hospitals* *Health centers* *Pharmacies* ***Total*** N/A	*Hospitals* *Health centers* *Pharmacies* ***Total*** N/A	*Hospitals* *Health centers* *Pharmacies* ***Total***	*Hospitals* *Health centers* *Pharmacies* ***Total***	
	Rwanda		0% (0/10)	0% (0/10)	50% (5/10)	N/A	*Hospitals* 100% (10/10) *Health centers* 100% (10/10) ***Total*** 100% (20/20)	*Hospitals* 100% (10/10) *Health centers* 100% (10/10) ***Total*** 100% (20/20)	*Hospitals* *Health centers* ***Total***	*Hospitals* *Health centers* ***Total***	
	Rwanda PEPFAR		0%	N/A	N/A	100% (20/20)	*Hospitals* *Health centers* ***Total*** N/A	*Hospitals* *Health centers* ***Total*** N/A	*Hospitals* *Health centers* ***Total***	*Hospitals* *Health centers* ***Total***	
	Mozambique		0%	N/A	100%	100% (14/14)	*Hospitals* 100% (1/1) *Health centers* 100% (4/4) ***Total*** 100% (5/5)	*Hospitals* 100% (1/1) *Health centers* 100% (4/4) ***Total*** 100% (5/5)	*Hospitals* *Health centers* ***Total***	*Hospitals* *Health centers* ***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)	52% (1,069/2,052)				
	IGAD		0% (0/0)	N/A	100% (1104/ 1104)	N/A	N/A				
	Bangladesh		68% (68/100)	22%	77% (449/ 586)	90% (852/945)	75% (385/513)				
	Burkina Faso		0	N/A	N/A	N/A	N/A				
	Mozambique		60%	N/A	56% (1237/ 2213)	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)	44% (684/1,539)				
	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					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
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					
	Nepal		0	N/A	N/A	15					
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)					
	Jordan		0	N/A	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				
	Mozambique		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			
	Jordan		0	N/A	N/A	4	N/A	N/A			
ML 1	# of marketing authorization commission meetings supported by MTaPS	Quarterly	0	0	0	1	N/A	N/A			
	Mali MNCH		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			
	Mali MNCH		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			
	Mali		0	0	0	0					
	Rwanda		0	0	0	1					
	Senegal		0	0	0	0					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	Uganda		0	0	0	2					
EVD 2	# of entities implementing EVD guidelines with MTaPS support	Quarterly	0	0	0	66	N/A				
	Côte d'Ivoire		0	0	0	N/A	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* *Total*	*ETU* *Non-ETU* *POE* *Total*	
	Mali		0	0	0	7	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
	Rwanda		0	0	0	0	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
	Senegal		0	0	0	0	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
	Uganda		0	0	0	59	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
EVD 3	# of persons who received EVD training with MTaPS support	Quarterly	0	0	0	924	N/A				
	Côte d'Ivoire		0	0	0	N/A	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Mali		0	0	0	0	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Rwanda		0	0	0	32	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Senegal		0	0	0	0	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Uganda		0	0	0	892	*Female* *Male*	*Female* *Male*	*Female* *Male*	*Female* *Male*	

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
							Unknown ***Total***	*Unknown* ***Total***	*Unknown* ***Total***	*Unknown* ***Total***	
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	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
	Mali		0	0	0	7	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
	Rwanda		0	0	0	0	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
	Senegal		0	0	0	0	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	*ETU* *Non-ETU* *POE* ***Total***	
PP 2.3.1	% of sentinel facilities using PViMS	Quarterly	0	0	20%	70% (564/801)	99% (197/199)	99% (197/199)			
	Philippines		0	0	20%	70% (564/801)	99% (197/199)	99% (197/199)			
PH-P 1	# of products completed HTA process with MTaPS support	Annually	0	N/A	N/A	1					
	Philippines										
PH- P 2	# of HIV/AIDS commodities that complete the quantification process with MTaPS support	Annually	0	N/A	N/A	9					
	Philippines										
JO 1	# of National Vaccine Procurement Modernization Committee (NVPMC) meetings with MTaPS support	Quarterly	0	N/A	N/A	3	1	0			
	Jordan						1	0			

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
JO 4	# of awareness-raising activities on AMR and rational use of antibiotics conducted	Quarterly	0	N/A	N/A	4	8	22			
	Jordan		0	N/A	N/A	4	8	22			
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	1,125	1,575			
	Jordan		0	N/A	N/A	0	*Female* 568 *Male* 557 *Unknown* 0 ***Total*** 1,125	*Female* 849 *Male* 726 *Unknown* 0 ***Total*** 1,575	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***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			
	Jordan		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			
	Jordan		0	N/A	N/A	3	N/A	N/A			
MSC 1	# of AMR-related in-country meetings or activities conducted with multisectoral participation	Quarterly	0	122	170	188	45	32			
	Bangladesh		0	3	2	9	3	1			
	Burkina Faso		0	2	2	4	1	3			
	Senegal		0	2	5	8	2	3			
	Cameroon		0	5	7	4	0	2			
	Côte d'Ivoire		0	35	67	76	11	8			
	DRC		0	6	20	8	2	1			
	Ethiopia		0	1	N/A	5	3	1			
	Jordan		0	0	2	N/A	N/A	N/A			
	Kenya		0	38	26	24	8	4			
	Mali		0	16	6	13	3	2			
	Mozambique		0	0	13	12	3	3			
	Nigeria		0	N/A	6	10	4	0			
	Tanzania		0	4	2	8	1	1			
	Uganda		0	9	7	7	4	2			

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
MSC 2	# and % of female participants in meetings or other events organized by the multisectoral body on AMR	Semiannually		39% (842/2,135)	42% (346/825)	32% (779/2,458)	36% (531/1,694)				
	Bangladesh		29% (24/84)	29% (24/84)	29% (12/41)	20% (60/300)	20% (15/75)				
	Burkina Faso		18% (3/17)	22% (6/27)	33% (10/10)	29% (5/17)	32% (39/123)				
	Cameroon		50% (2/4)	39% (39/101)	52% (32/62)	27% (38/138)	57% (29/51)				
	Côte d'Ivoire		38% (21/55)	38% (42/110)	43% (70/163)	39% (151/382)	37% (118/319)				
	DRC		34%	36% (76/212)	32% (30/93)	35% (54/154)	41% (30/73)				
	Ethiopia		22%	17% (16/93)	N/A	22% (71/321)	10% (31/304)				
	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% (123/270)				
	Mali		15%	16% (20/124)	20% (22/109)	21% (82/394)	26% (74/287)				
	Mozambique		48% (11/23)	N/A	40% (4/10)	40% (36/92)	39% (30/77)				
	Nigeria		Data not reported	N/A	41% (17/41)	46% (44/95)	50% (5/10)				
	Senegal		58% (54/93)	58% (54/93)	34% (11/32)	39% (70/181)	38% (13/34)				
	Tanzania		14% (3/21)	14% (3/21)	0% (0/0)	22% (14/63)	28% (6/21)				
	Uganda		Data not reported	N/A	61% (28/46)	43% (44/102)	36% (18/50)				
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					
	Bangladesh		0	0	2	1					
	Burkina Faso		0	0	1	1					
	Cameroon		0	1	1	0					
	Côte d'Ivoire		0	0	0	1					
	DRC		0	3	0	0					
	Kenya		0	3	3	1					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	Mali		0	8	N/A	1					
	Mozambique		0	N/A	2	N/A					
	Nigeria		0	N/A	0	1					
	Senegal		0	1	2	3					
	Tanzania		0	1	2	1					
	Uganda		0	0	0	2					
MSC 4	# of multisectoral bodies that have developed a national monitoring framework with MTaPS support	Annually	0	1	1	8					
	Bangladesh		0	0	0	N/A					
	Burkina Faso		0	0	0	0					
	Cameroon		0	0	0	1					
	Côte d'Ivoire		0	0	0	1					
	DRC		0	0	0	1					
	Kenya		0	1	1	1					
	Mali		0	0	N/A	N/A					
	Mozambique		0	0	0	0					
	Nigeria		0	N/A	0	1					
	Senegal		0	0	1	2					
	Tanzania		0	0	0	1					
	Uganda		0	0	0	0					
MSC 5	# of persons trained in AMR-related topics in leadership/management related to multisectoral engagement in AMR with MTaPS support	Quarterly	0	164	655	237	40	41			
	Bangladesh		0	0	0	N/A	*Female* *Male* *Unknown* ***Total***	N/A	*Female* *Male* *Unknown* ***Total***	N/A	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Burkina Faso		0	0	80	0	*Female* 0 *Male* 0 *Unknown* 0 ***Total*** 0		*Female* 0 *Male* 0 *Unknown* 0 ***Total*** 0		*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Cameroon		0	0	20	N/A	*Female* *Male* *Unknown* ***Total***	N/A	*Female* *Male* *Unknown* ***Total***	N/A	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	Côte d'Ivoire		0	134	0	N/A	*Female* *Male* *Unknown* ***Total***	N/A	*Female* *Male* *Unknown* ***Total***	N/A	*Female* *Male* *Unknown* ***Total***	*Female* *Male* *Unknown* ***Total***	
	DRC		0	0	463	0	*Female*	N/A	*Female*		*Female*	*Female*	

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
							Male		*Male*	N/A	*Male*	*Male*	
							Unknown		*Unknown*		*Unknown*	*Unknown*	
							Total		***Total***		***Total***	***Total***	
	Ethiopia		0	150	N/A	22	*Female*	0	*Female*	5	*Female*	*Female*	
							Male	0	*Male*	25	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	0	***Total***	30	***Total***	***Total***	
	Kenya		0	N/A	N/A	22	*Female*	0	*Female*	0	*Female*	*Female*	
							Male	0	*Male*	0	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	0	***Total***	0	***Total***	***Total***	
	Mali		0	30	2	0	*Female*		*Female*		*Female*	*Female*	
							Male	N/A	*Male*	N/A	*Male*	*Male*	
							Unknown		*Unknown*		*Unknown*	*Unknown*	
							Total		***Total***		***Total***	***Total***	
	Mozambique		0	0	45	67	*Female*	6	*Female*	7	*Female*	*Female*	
							Male	5	*Male*	4	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	11	***Total***	11	***Total***	***Total***	
	Nigeria		0	N/A	0	25	*Female*	3	*Female*	0	*Female*	*Female*	
							Male	26	*Male*	0	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	29	***Total***	0	***Total***	***Total***	
	Senegal		0	0	0	0	*Female*		*Female*		*Female*	*Female*	
							Male	N/A	*Male*	N/A	*Male*	*Male*	
							Unknown		*Unknown*		*Unknown*	*Unknown*	
							Total		***Total***		***Total***	***Total***	
	Tanzania		0	0	0	N/A	*Female*		*Female*		*Female*	*Female*	
							Male	N/A	*Male*	N/A	*Male*	*Male*	
							Unknown		*Unknown*		*Unknown*	*Unknown*	
							Total		***Total***		***Total***	***Total***	
	Uganda		0	0	45	101	*Female*		*Female*		*Female*	*Female*	
							Male	N/A	*Male*	N/A	*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							
	Bangladesh		0	0	0	0							
	Burkina Faso		0	0	1	0							
	Cameroon		0	0	20	20							

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	Côte d'Ivoire		0	1	2	6					
	DRC		0	0	0	N/A					
	Kenya		0	0	0	0					
	Mali		0	1	2	N/A					
	Mozambique		0	N/A	0	N/A					
	Nigeria		0	N/A	0	N/A					
	Senegal		0	0	0	0					
	Tanzania		0	0	0	N/A					
	Uganda		0	0	0	0					
MSC 7	# of data collection and analysis mechanisms for tracking AMR-related indicators developed or strengthened with MTaPS support	Annually	0	0	2	5					
	Bangladesh		0	0	0	N/A					
	Burkina Faso		0	0	0	0					
	Cameroon		0	0	0	1					
	Côte d'Ivoire		0	0	0	0					
	DRC		0	0	1	0					
	Kenya		0	0	0	1					
	Mozambique		0	N/A	1	2					
	Nigeria		0	N/A	0	0					
	Senegal		0	0	0	0					
	Tanzania		0	0	0	1					
	Uganda		0	0	0	0					
IP 1	# of updated policies, legislation, regulations, or operational documents for improving IPC	Annually	0	9	3	7					
	Bangladesh		0	0	0	N/A					
	Burkina Faso		0	0	0	N/A					
	Cameroon		0	0	1	1					
	Côte d'Ivoire		0	7	0	0					
	DRC		0	0	0	N/A					
	Kenya		0	0	3	2					
	Mali		0	1	N/A	1					
	Mozambique		0	N/A	1	N/A					
	Nigeria		0	N/A	1	1					
	Senegal		0	0	0	1					
	Tanzania		0	1	0	1					
	Uganda		0	0	0	1					
IP 2	# of persons trained in IPC with MTaPS support	Quarterly	0	1,199	7,477	3,886	577	465			
	Bangladesh		0	0	95	264	*Female* N/A	*Female*	*Female*	*Female*	

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result		PY5Q4 Result		PY5 Cumulative Result
							Male		*Male*	N/A	*Male*		*Male*		
							Unknown		*Unknown*		*Unknown*		*Unknown*		
							Total		***Total***		***Total***		***Total***		
	Cameroon		0	86	88	N/A	*Female*		*Female*		*Female*		*Female*		
							Male	N/A	*Male*	N/A	*Male*		*Male*		
							Unknown		*Unknown*		*Unknown*		*Unknown*		
							Total		***Total***		***Total***		***Total***		
	Côte d'Ivoire		0	0	131	158	*Female*		*Female*		*Female*		*Female*		
							Male	N/A	*Male*	N/A	*Male*		*Male*		
							Unknown		*Unknown*		*Unknown*		*Unknown*		
							Total		***Total***		***Total***		***Total***		
	DRC		0	0	94	N/A	*Female*		*Female*		*Female*		*Female*		
							Male	N/A	*Male*	N/A	*Male*		*Male*		
							Unknown		*Unknown*		*Unknown*		*Unknown*		
							Total		***Total***		***Total***		***Total***		
	Ethiopia		0	0	N/A	28	*Female*	33	*Female*	70	*Female*		*Female*		
							Male	39	*Male*	69	*Male*		*Male*		
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
							Total	72	***Total***	139	***Total***		***Total***		
	Kenya		0	642	5,230	742	*Female*	52	*Female*	96	*Female*		*Female*		
							Male	33	*Male*	71	*Male*		*Male*		
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
							Total	85	***Total***	167	***Total***		***Total***		
	Mali		0	N/A	21	29	*Female*		*Female*	5	*Female*		*Female*		
							Male	N/A	*Male*	12	*Male*		*Male*		
							Unknown		*Unknown*	0	*Unknown*		*Unknown*		
							Total		***Total***	17	***Total***		***Total***		
	Mozambique		0	0	0	57	*Female*	8	*Female*	5	*Female*		*Female*		
							Male	6	*Male*	9	*Male*		*Male*		
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
							Total	14	***Total***	14	***Total***		***Total***		
	Nigeria		0	N/A	15	51	*Female*	11	*Female*	15	*Female*		*Female*		
							Male	12	*Male*	3	*Male*		*Male*		
							Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
							Total	23	***Total***	18	***Total***		***Total***		
	Senegal		0	0	22	717	*Female*	181	*Female*	0	*Female*		*Female*		
							Male	94	*Male*	0	*Male*		*Male*		
							Unknown	0	*Unknown*	90	*Unknown*		*Unknown*		
							Total	275	***Total***	90	***Total***		***Total***		
	Tanzania		0	471	17	117	*Female*	43	*Female*		*Female*		*Female*		
							Male	65	*Male*	N/A	*Male*		*Male*		
							Unknown	0	*Unknown*		*Unknown*		*Unknown*		
							Total	108	***Total***		***Total***		***Total***		
	Uganda		0	0	1,247	1,770	*Female*	0	*Female*	0	*Female*		*Female*		

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
							Male 0 *Unknown* 0 ***Total*** 0	*Male* 0 *Unknown* 0 ***Total*** 0	*Male* *Unknown* ***Total***	*Male* *Unknown* ***Total***	
IP 3	# and % of MTaPS-supported facilities that are using standardized tool(s) for monitoring IPC and informing programmatic improvement	Quarterly	50% (8/16)	100% (9/9)	94% (107/114)	100% (141/141)	95% (131/138)	91% (128/140)			
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	100% (4/4)	*Hospitals* 55% (5/9) *Health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 55% (5/9)	*Hospitals* 67% (6/9) *Health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 67% (6/9)	*Hospitals* *Health centers* *Others* ***Total***	*Hospitals* *Health centers* *Others* ***Total***	
	Cameroon		0% (0/0)	0% (0/0)	100% (12/12)	100% (12/12)	*Hospitals* 100% (12/12) *Health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 100% (12/12)	*Hospitals* 100% (12/12) *Health Centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 100% (12/12)	*Hospitals* *Health centers* *Others* ***Total***	*Hospitals* *Health centers* *Others* ***Total***	
	Côte d'Ivoire		0% (0/0)	0% (0/0)	100% (12/12)	100% (22/22)	*Hospital* 100% (20/20) *Animal health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 100% (20/20)	*Hospital* 100% (20/20) *Animal health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 100% (20/20)	*Hospital* *Animal health centers* *Others* ***Total***	*Hospital* *Animal health centers* *Others* ***Total***	
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	*Hospitals* 100% (12/12) *Health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 100% (12/12)	*Hospitals* 50% (6/12) *Health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 50% (6/12)	*Hospitals* *Health centers* *Others* ***Total***	*Hospitals* *Health centers* *Others* ***Total***	
	Ethiopia		0% (0/0)	50% (15/30)	N/A	100% (5/5)	*Hospitals* 100% (5/5) *Health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 100% (5/5)	*Hospitals* 100% (7/7) *Health centers* 0% (0/0) *Others* 0% (0/0) ***Total*** 100% (7/7)	*Hospitals* *Health centers* *Others* ***Total***	*Hospitals* *Health centers* *Others* ***Total***	
	Kenya		0% (0/0)	0% (0/0)	100% (20/20)	100% (20/20)	*Hospitals* 100% (19/19) *Health centers* 100% (1/1) *Others* 0% (0/0)	*Hospitals* 100% (19/19) *Health centers* 100% (1/1) *Others* 0% (0/0)	*Hospitals* *Health centers* *Others*	*Hospitals* *Health centers* *Others*	

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
							Total	100% (20/20)	***Total***	100% (20/20)	***Total***	***Total***	
	Mali		0% (0/0)	0% (0/0)	100% (16/16)	100% (16/16)	*Hospital*	100% 9/9)	*Hospital*	100% (9/9)	*Hospital*	*Hospital*	
							Health centers	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (16/16)	***Total***	100% (16/16)	***Total***	***Total***	
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	*Hospital*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***	***Total***	
	Nigeria		0% (0/0)	N/A	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***	***Total***	
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	100% (13/13)	*Hospitals*	83% (10/12)	*Hospitals*	83% (10/12)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/1)	*Health centers*	0% (0/1)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	77% (10/13)	***Total***	77% (10/13)	***Total***	***Total***	
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (10/10)	***Total***	100% (10/10)	***Total***	***Total***	
	Uganda		0% (0/0)	0% (0/0)	100% (13/13)	100% (13/13)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***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)	25% (3/12)	75% (8/12)	3/4							
	Bangladesh		No	No	No	No							
	Kenya		No	Yes	Yes	Yes							
	Mali		No	No	Yes	Yes							
	Nigeria		No	N/A	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)	93% (128/138)		87% (122/140)				

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result		PY5Q4 Result		PY5 Cumulative Result
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	50% (2/4)	*Hospitals*	44% (4/9)	*Hospitals*	67% (6/9)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	44% (4/9)	***Total***	67% (6/9)	***Total***		***Total***		
	Cameroon		0% (0/6)	100% (6/6)	100% (12/12)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (12/12)	***Total***	100% (12/12)	***Total***		***Total***		
	Côte d'Ivoire		50% (2/4)	100% (4/4)	100% (12/12)	92% (20/22)	*Hospitals*	100% (20/20)	*Hospitals*	100% (20/20)	*Hospitals*		*Hospitals*		
							Animal health centers	0% (0/0)	Animal health centers	0% (0/0)	*Animal health centers*		*Animal health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (20/20)	***Total***	100% (20/20)	***Total***		***Total***		
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	50% (6/12)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (12/12)	***Total***	50% (6/12)	***Total***		***Total***		
	Ethiopia		0% (0/0)	70%	N/A	0% (0/5)	*Hospitals*	100% (5/5)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (5/5)	***Total***	100% (7/7)	***Total***		***Total***		
	Kenya		100% (16/16)	100% (16/16)	100% (20/20)	100% (20/20)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*		*Hospitals*		
							Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (20/20)	***Total***	100% (20/20)	***Total***		***Total***		
	Mali		0% (0/5)	0% (0/5)	94% (15/16)	100% (16/16)	*Hospital*	89% (8/9)	*Hospital*	100% (9/9)	*Hospital*		*Hospital*		
							Health centers	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	94% (15/16)	***Total***	100% (16/16)	***Total***		***Total***		
	Mozambique		43%		100%	100%	*Hospital*	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*		*Hospital*		

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result		PY5Q4 Result		PY5 Cumulative Result
			(3/7)	Data not reported	(7/7)	(7/7)	*Health centers*	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***		***Total***		
	Nigeria		0% (0/3)	N/A	0% (0/0)	14% (1/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***		***Total***		
	Senegal		0% (0/3)	0% (0/3)	100% (8/8)	92% (12/13)	*Hospitals*	75% (9/12)	*Hospitals*	33% (4/13)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/1)	*Health centers*	0% (0/1)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	69% (9/13)	***Total***	31% (4/13)	***Total***		***Total***		
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (10/10)	***Total***	100% (10/10)	***Total***		***Total***		
	Uganda		0% (0/7)	100% (7/7)	100% (13/13)	100% (13/13)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (7/7)	***Total***	100% (7/7)	***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% (135/138)		93% (130/140)						
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	100% (6/6)	*Hospitals*	100% (9/9)	*Hospitals*	100% (9/9)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (9/9)	***Total***	100% (9/9)	***Total***		***Total***		
	Cameroon		0% (0/0)	83% (5/6)	100% (12/12)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (12/12)	***Total***	100% (12/12)	***Total***		***Total***		
	Côte d'Ivoire		100% (4/4)	100% (4/4)	100% (12/12)	100% (22/22)	*Hospitals*	100% (20/20)	*Hospitals*	100% (20/20)	*Hospitals*		*Hospitals*		
							Animal health centers	0% (0/0)	*Animal health centers*	0% (0/0)	*Animal health centers*		*Animal health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result		PY5Q4 Result		PY5 Cumulative Result
							Total	100% (20/20)	***Total***	100% (20/20)	***Total***		***Total***		
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	50% (6/12)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (12/12)	***Total***	50% (6/12)	***Total***		***Total***		
	Ethiopia		0% (0/0)	100%	N/A	100% (5/5)	*Hospitals*	100% (5/5)	*Hospitals*	86% (6/7)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (5/5)	***Total***	86% (6/7)	***Total***		***Total***		
	Kenya		0% (0/16)	100% (16/16)	92% (18/20)	100% (20/20)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*		*Hospitals*		
							Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (20/20)	***Total***	100% (20/20)	***Total***		***Total***		
	Mali		0% (0/5)	0% (0/5)	75% (12/16)	100% (16/16)	*Hospital*	100% (9/9)	*Hospital*	100% (9/9)	*Hospital*		*Hospital*		
							Health centers	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (16/16)	***Total***	100% (16/16)	***Total***		***Total***		
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*		*Hospital*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***		***Total***		
	Nigeria		0% (0/3)	N/A	0% (0/3)	86% (6/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***		***Total***		
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	92% (12/13)	*Hospitals*	83% (10/12)	*Hospitals*	83% (10/12)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/1)	*Health centers*	0% (0/1)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	77% (10/13)	***Total***	77% (10/13)	***Total***		***Total***		
	Tanzania		17% (1/6)	100% (6/6)	100% (10/10)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		*Hospitals*		
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*		*Health centers*		
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*		*Others*		
							Total	100% (10/10)	***Total***	100% (10/10)	***Total***		***Total***		

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	Uganda		100% (7/7)	100% (7/7)	100% (13/13)	100% (13/13)	*Hospitals* *Health centers* *Others* ***Total***	100% (7/7) 0% (0/0) 0% (0/0) 100% (7/7)	*Hospitals* *Health centers* *Others* ***Total***	100% (7/7) 0% (0/0) 0% (0/0) 100% (7/7)	*Hospitals* *Health centers* *Others* ***Total***	*Hospitals* *Health centers* *Others* ***Total***	
IP 7	# and % of MTaPS-supported facilities with improved hand hygiene compliance	Annually	0	100% (36/36)	85% (88/104)	73% (103/141)							
	Bangladesh		0	N/A	100% (2/2)	100% (4/4)	*Hospitals* ***Total***						
	Cameroon		0	N/A	100% (12/12)	92% (11/12)	*Hospitals* ***Total***						
	Côte d'Ivoire		0	100% (4/4)	90% (9/12)	45% (10/22)	*Hospitals* *Health centers* ***Total***						
	DRC		0	N/A	57% (4/7)	100% (12/12)	*Hospitals* ***Total***						
	Ethiopia		0	N/A	N/A	0% (0/5)	*Hospitals* ***Total***						
	Kenya		0	100% (16/16)	100% (20/20)	100% (20/20)	*Hospitals* *Health centers* ***Total***						
	Mali		0	N/A	94% (15/16)	75% (12/16)	*Hospital* *Health centers* ***Total***						
	Mozambique		0	N/A	0% (0/7)	43% (3/7)	*Hospitals* ***Total***						
	Nigeria		0	N/A	0% (1/3)	14% (1/7)	*Hospitals* ***Total***						
	Senegal		0	100% (3/3)	100% (8/8)	54% (7/13)	*Hospitals* *Health Centers* ***Total***						
	Tanzania		0	100% (6/6)	100% (10/10)	100% (10/10)	*Hospitals* ***Total***						
	Uganda		0	100% (7/7)	100% (7/7)	100% (13/13)	*Hospitals* ***Total***						
IP 8	# and % of MTaPS-supported facilities with improved performance in core IPC components	Annually	0	35% (26/73)	75% (78/104)	80% (113/141)							
	Bangladesh		0	50%	100%	100%	*Hospitals*						

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
				(1/2)	(2/2)	(4/4)	***Total***				
	Cameroon		0	N/A	100% (12/12)	92% (11/12)	*Hospitals*				
							Total				
	Côte d'Ivoire		0	N/A	80% (8/12)	41% (9/22)	*Hospitals*				
							Heath center				
							Total				
	DRC		0	N/A	0% (0/7)	100% (12/12)	*Hospitals*				
							Total				
	Kenya		0	100% (16/16)	100% (20/20)	100% (20/20)	*Hospitals*				
							Health centers				
							Total				
	Mali		0	N/A	94% (15/16)	81% (13/16)	*Hospital*				
							Health centers				
							Total				
	Mozambique		0	N/A	100% (7/7)	100% (7/7)	*Hospitals*				
							Total				
	Nigeria		0	N/A	0% (0/3)	14% (1/7)	*Hospitals*				
							Total				
	Senegal		0	100% (3/3)	100% (8/8)	100% (13/13)	*Hospitals*				
							Health Centers				
							Total				
	Tanzania		0	100% (6/6)	60% (6/10)	100% (10/10)	*Hospitals*				
							Total				
	Uganda		0	N/A	0% (0/7)	100% (13/13)	*Hospitals*				
							Total				
AS 1	# of policies, legislation, regulations, or operational documents related to AMS developed or updated with MTaPS support	Annually	0	5	12	14					
	Bangladesh		0	0	0	1					
	Burkina Faso		0	0	2	N/A					
	Cameroon		0	0	0	0					
	Côte d'Ivoire		0	1	0	0					
	DRC		0	1	3	1					
	Kenya		0	1	3	3					
	Mali		0	1	N/A	1					
	Mozambique		0	N/A	1	3					
	Nigeria		0	N/A	0	1					
	Senegal		0	0	1	1					
	Tanzania		0	1	2	1					
	Uganda		0	0	0	2					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
AS 2	# and % of MTaPS-supported facilities' MTC/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework	Quarterly	10% (4/39)	81% (25/31)	60% (74/123)	72% (112/155)	80% (122/152)		85% (122/144)				
	Bangladesh		0% (0/0)	0% (0/0)	0% (0/2)	50% (2/4)	*Hospitals*	44% (4/9)	*Hospitals*	44% (4/9)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health Centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	44% (4/9)	***Total***	44% (4/9)	***Total***	***Total***	
	Burkina Faso		0% (0/0)	0% (0/0)	25% (3/12)	0% (0/10)	*Hospitals*	100% (10/10)	*Hospitals*	N/A	*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***	
	Cameroon		0% (0/0)	0% (0/0)	92% (11/12)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (12/12)	***Total***	100% (12/12)	***Total***	***Total***	
	Côte d'Ivoire		0% (0/0)	0% (0/0)	75% (9/12)	91% (20/22)	*Hospitals*	70% (14/20)	*Hospitals*	100% (20/20)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	70% (14/20)[22]	***Total***	100% (20/20)	***Total***	***Total***	
	Ethiopia		0% (0/0)	N/A	N/A	0% (0/5)	*Hospitals*	100% (5/5)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (5/5)	***Total***	100% (7/7)	***Total***	***Total***	
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	

[22] Data was not collected from six facilities in PY5Q1.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
							Total	100% (12/12)	***Total***	100% (12/12)	***Total***	***Total***	
	Kenya		6% (1/16)	100% (18/18)	83% (20/24)	100% (21/21)	*Hospitals*	95% (20/21)	*Hospitals*	100% (21/21)	*Hospitals*	*Hospitals*	
							Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*	*Health centers*	
							Pharmacy	0% (0/2)	*Others*	0% (0/2)	*Pharmacy*	*Pharmacy*	
							Total	87% (21/24)	***Total***	92% (22/24)	***Total***	***Total***	
	Mali		0% (0/0)	0% (0/0)	56% (9/16)	75% (12/16)	*Hospital*	78% (7/9)	*Hospitals*	89% (8/9)	*Hospital*	*Hospital*	
							Health centers	86% (6/7)	*Health centers*	86% (6/7)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	81% (13/16)	***Total***	87% (14/16)	***Total***	***Total***	
	Mozambique		0% (0/7)	Data not reported	0% (0/7)	43% (3/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***	***Total***	
	Nigeria		0% (0/3)	N/A	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***	***Total***	
	Senegal		0% (0/0)	0% (0/0)	0% (0/8)	0% (0/14)	*Hospitals*	0% (0/12)	*Hospitals*	0% (0/12)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/1)	*Health Centers*	0% (0/1)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	0% (0/13)	***Total***	0% (0/13)	***Total***	***Total***	
	Tanzania		0% (0/6)	0% (0/6)	20% (2/10)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health Centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (10/10)	***Total***	100% (10/10)	***Total***	***Total***	
	Uganda		43% (3/7)	100% (7/7)	100% (13/13)	100% (13/13)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***	***Total***	
AS 3	# of persons trained in AMS topics with MTaPS support	Quarterly	0	436	4721	4,051	1,080		522		2,042		
	Bangladesh		0	0	0	420	*Female*	N/A	*Female*	0	*Female*	*Female*	
							Male		*Male*	0	*Male*	*Male*	
							Unknown		*Unknown*	0	*Unknown*	*Unknown*	
							Total		***Total***	0	***Total***	***Total***	

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	Burkina Faso[23]		0	0	97	86	*Female*	158	*Female*	N/A	*Female*	*Female*	
							Male	192	*Male*		*Male*	*Male*	
							Unknown	0	*Unknown*		*Unknown*	*Unknown*	
							Total	350	***Total***		***Total***	***Total***	
	Cameroon		0	0	222	17	*Female*	N/A	*Female*	N/A	*Female*	*Female*	
							Male		*Male*		*Male*	*Male*	
							Unknown		*Unknown*		*Unknown*	*Unknown*	
							Total		***Total***		***Total***	***Total***	
	Côte d'Ivoire		0	0	237	104	*Female*	6	*Female*	N/A	*Female*	*Female*	
							Male	30	*Male*		*Male*	*Male*	
							Unknown	0	*Unknown*		*Unknown*	*Unknown*	
							Total	36	***Total***		***Total***	***Total***	
	DRC		0	0	274	91	*Female*	N/A	*Female*	N/A	*Female*	*Female*	
							Male		*Male*		*Male*	*Male*	
							Unknown		*Unknown*		*Unknown*	*Unknown*	
							Total		***Total***		***Total***	***Total***	
	Ethiopia		0	0	N/A	180	*Female*	36	*Female*	14	*Female*	*Female*	
							Male	93	*Male*	132	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	129	***Total***	146	***Total***	***Total***	
	Kenya		0	165	1,333	869	*Female*	271	*Female*	169	*Female*	*Female*	
							Male	237	*Male*	128	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	508	***Total***	297	***Total***	***Total***	
	Mali		0	0	136	49	*Female*	N/A	*Female*	N/A	*Female*	*Female*	
							Male		*Male*		*Male*	*Male*	
							Unknown		*Unknown*		*Unknown*	*Unknown*	
							Total		***Total***		***Total***	***Total***	
	Mozambique		0	0	0	34	*Female*	7	*Female*	5	*Female*	*Female*	
							Male	8	*Male*	7	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	15	***Total***	12	***Total***	***Total***	
	Nigeria		0	N/A	18	108	*Female*	0	*Female*	7	*Female*	*Female*	
							Male	0	*Male*	10	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	0	***Total***	17	***Total***	***Total***	
	Senegal		0	0	0	0	*Female*	0	*Female*	N/A	*Female*	*Female*	
							Male	0	*Male*		*Male*	*Male*	
							Unknown	0	*Unknown*		*Unknown*	*Unknown*	
							Total	0	***Total***		***Total***	***Total***	

[23] Continuing activity from PY4; activity not planned for the rest of PY5.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
	Tanzania		0	201	0	N/A	*Female*	0	*Female*	N/A	*Female*	*Female*	
							Male	0	*Male*		*Male*	*Male*	
							Unknown	0	*Unknown*		*Unknown*	*Unknown*	
							Total	0	***Total***		***Total***	***Total***	
	Uganda		0	70	2,513	1,776	*Female*	17	*Female*	18	*Female*	*Female*	
							Male	25	*Male*	32	*Male*	*Male*	
							Unknown	0	*Unknown*	0	*Unknown*	*Unknown*	
							Total	42	***Total***	50	***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)	73% (111/152)		74% (106/144)				
	Bangladesh		0% (0/0)	0% (0/0)	0% (0/2)	50% (2/4)	*Hospitals*	44% (4/9)	*Hospitals*	44% (4/9)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	44% (4/9)	***Total***	44% (4/9)	***Total***	***Total***	
	Burkina Faso[24]		0% (0/0)	100% (5/5)	25% (3/12)	0% (0/10)	*Hospitals*	100% (10/10)	*Hospitals*	N/A	*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***	
	Cameroon		0% (0/0)	0% (0/6)	92% (11/12)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (12/12)	***Total***	100% (12/12)	***Total***	***Total***	
	Côte d'Ivoire[25]		0% (0/0)	100% (2/2)	90% (9/10)	91% (20/22)	*Hospitals*	70% (14/20)	*Hospitals*	100% (20/20)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	70% (14/20)	***Total***	100% (20/20)	***Total***	***Total***	
	DRC		0% (0/0)	100% (3/3)	100% (7/7)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	50% (6/12)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% 0/0)	*Others*	0% 0/0)	*Others*	*Others*	
							Total	100% (12/12)	***Total***	33% (6/12)	***Total***	***Total***	
	Ethiopia		3%	13%	N/A	0%	*Hospitals*	100% (5/5)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	

[24] Continuing activity from PY4; activity not planned for the rest of the project year.
[25] Data was not collected from six facilities in PY5Q1.

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result		PY5Q2 Result		PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
			(1/30)	(4/30)		(0/5)	*Health centers*	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (5/5)	***Total***	100% (7/7)	***Total***	***Total***	
	Kenya		100% (18/18)	100% (18/18)	92% (22/24)	91% (21/23)	*Hospitals*	95% (20/21)	*Hospitals*	100% (21/21)	*Hospitals*	*Hospitals*	
							Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*	*Health centers*	
							Pharmacy	0% (0/2)	*Pharmacy*	0% (0/2)	*Pharmacy*	*Pharmacy*	
							Total	87% (21/24)	***Total***	92% (22/24)	***Total***	***Total***	
	Mali		0% (0/5)	0% (0/5)	13% (2/16)	75% (12/16)	*Hospital*	78% (7/9)	*Hospitals*	89% (8/9)	*Hospital*	*Hospital*	
							Health centers	86% (6/7)	*Health centers*	86% (6/7)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	81% (13/16)	***Total***	87% (14/16)	***Total***	***Total***	
	Mozambique		0% (0/7)	Data not reported	57% (4/7)	100% (7/7)	*Hospital*	0% (0/7)	*Hospital*	0% (0/7)	*Hospital*	*Hospital*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	0% (0/7)	***Total***	0% (0/7)	***Total***	***Total***	
	Nigeria		0% (0/3)	N/A	0% (0/3)	14% (1/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***	***Total***	
	Senegal		0% (0/3)	0% (0/3)	0% (0/8)	0% (0/14)	*Hospitals*	0% (0/12)	*Hospitals*	0% (0/12)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/1)	*Health centers*	0% (0/1)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	0% (0/13)	***Total***	0% (0/13)	***Total***	***Total***	
	Tanzania		0% (0/6)	100% (6/6)	20% (2/10)	60% (6/10)	*Hospitals*	60% (6/10)	*Hospitals*	70% (7/10)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	60% (6/10)	***Total***	70% (7/10)	***Total***	***Total***	
	Uganda		86% (6/7)	100% (7/7)	100% (13/13)	100% (13/13)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	*Hospitals*	
							Health centers	0% (0/0)	*Health centers*	0% (0/0)	*Health centers*	*Health centers*	
							Others	0% (0/0)	*Others*	0% (0/0)	*Others*	*Others*	
							Total	100% (7/7)	***Total***	100% (7/7)	***Total***	***Total***	

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
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)					
	Bangladesh		0%	N/A	0% (0/2)	50% (2/4)	*Hospitals*				
							Total				
	Burkina Faso		0%	0% (0/5)	0% (0/12)	0% (0/10)	*Hospitals*				
							Total				
	Cameroon		0%	N/A	0% (0/12)	92% (11/12)	*Hospitals*				
							Total				
	Côte d'Ivoire		0%	0% (0/2)	0% (0/12)	14% (3/22)	*Hospitals*				
							Health centers				
							Total				
	DRC		0%	100% (3/3)	0% (0/7)	58% (7/12)	*Hospitals*				
							Total				
	Kenya		0%	100% (18/18)	92% (22/24)	91% (21/23)	*Hospitals*				
							Health centers				
							Pharmacies				
							Total				
	Mali		0%	N/A	13% (2/16)	0% (0/16)	*Hospital*				
							Health centers				
							Total				
	Mozambique		0%	N/A	71% (5/7)	28% (2/7)	*Hospitals*				
							Total				
	Nigeria		0%	N/A	0% (0/3)	0% (0/7)	*Hospitals*				
							Total				
	Senegal		0%	N/A	0% (0/8)	0% (14/14)	*Hospitals*				
							Total				
	Tanzania		0%	100% (6/6)	60% (6/10)	70% (7/10)	*Hospitals*				
							Total				
	Uganda		0%	0% (0/7)	0% (0/7)	31% (4/13)	*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 4	% of facilities implementing appropriate storage of oxytocin	Quarterly	0	N/A	64% (46/72)	75% (54/72)	76% (55/72)	83% (60/72)			

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
DRC 5	# of DPS and/or IPS using the updated directory of registered medicines	Semiannually	0	0	7	4	4				
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 community care sites in MTaPS-supported HZs	Semiannually	0	0	0	0	0				
DRC 11	% of community care sites reporting contraceptive data to HFs in MTaPS-supported HZs	Semiannually	0%	0	0% (0/12)	0%	0% (0/12)				
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					
BG 1	% of procurement packages of DGFP and DGHS that are on schedule	Annually	0	0	82%	50%					
BG 4	% of target HFs that keep complete TB patient information (as per national standards)	Annually	0	N/A	44%	71% (64/90)					

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
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					
BG 9	# of program approaches/initiative adopted/changed because of evidence-based recommendations and/or advocacy by USAID-supported activities	Annually	N/A	N/A	N/A	N/A					
BG 10	# and % of district hospitals using eAMS	Annually	N/A	N/A	N/A	N/A					
BG 12	# of health commodities tracked through USAID-supported eLMIS	Annually	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	5				
BG 14	# of TB patients registered in e-TB Manager	Quarterly	0	N/A	N/A	N/A	70,495	74,365			
DRC 2	# of CBO members that have been capacitated to participate in oversight of pharmaceutical management for MNCH commodities with MTaPS support	Annually	0	0	350	344					
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					

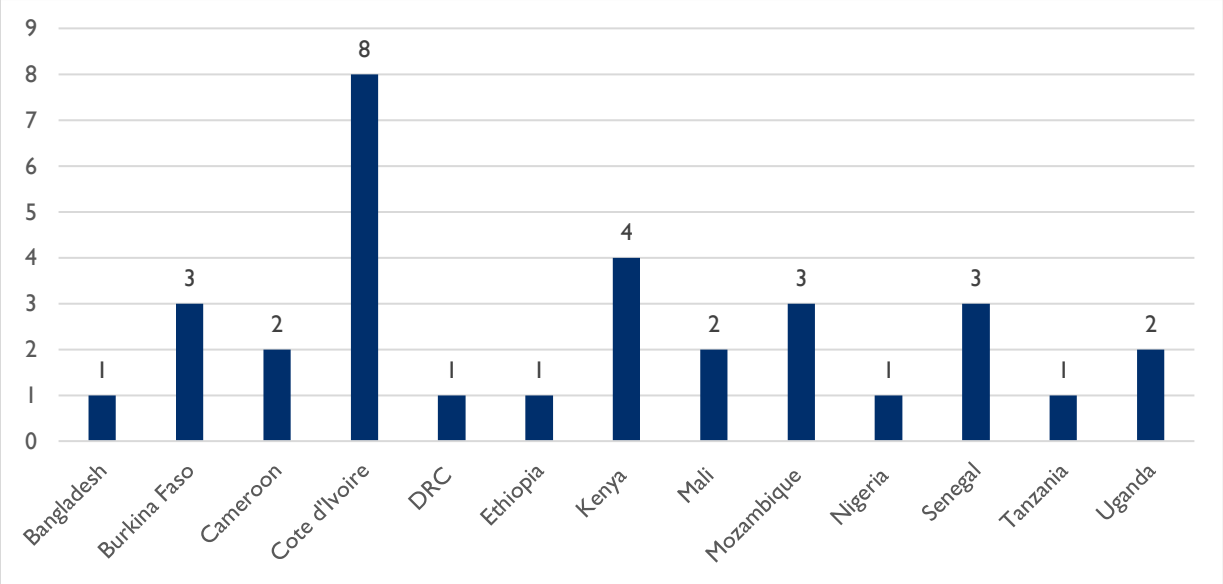
Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4 Result	PY5Q1 Result	PY5Q2 Result	PY5Q3 Result	PY5Q4 Result	PY5 Cumulative Result
IN 4.3.3b	# of health personnel receiving capacity development support to optimize the management of health services	Annually	0	N/A	N/A	242					
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	30	46			
	DRC		0	N/A	N/A	N/A	30	46			
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	30	71			
	DRC		0	N/A	N/A	N/A	30	71			
IP.MP.3**	# of post-training supervision visits conducted	Quarterly	0	N/A	N/A	N/A	N/A	3			
	DRC		0	N/A	N/A	N/A	N/A	3			
IP.MP.4**	# of field supervision visits conducted	Quarterly	0	N/A	N/A	N/A	N/A	N/A			
	DRC		0	N/A	N/A	N/A	N/A	N/A			
IP.MP.5**	Were the findings from supervision visits sent to HZs and/or HFs?	Quarterly	0	N/A	N/A	N/A	N/A	N/A			
	DRC		0	N/A	N/A	N/A	N/A	N/A			
IP.MP.6**	Are the recommendations made after supervision visits implemented by HZs and/or HFs?	Quarterly	0	N/A	N/A	N/A	N/A	N/A			
	DRC		0	N/A	N/A	N/A	N/A	N/A			
IP.3.MP.7	# and % of MTaPS-supported HFs that are using standardized tool(s) for monitoring IPC and informing programmatic improvement for monkeypox	Semiannually	N/A	N/A	N/A	N/A	0				
	DRC		N/A	N/A	N/A	N/A	0				

* CSL portfolio is currently implementing the remaining year 4 activities. Activity corresponding to indicator MT 3.3.1 was completed before this reporting period.
** Indicators IP.MP.1, 2, 3, 4, 5, 6, and 7 track progress on monkeypox activities in DRC.

ANNEX 2. GLOBAL HEALTH SECURITY AGENDA—QUARTER PROGRESS FOR QUARTER 2, FY23

SUMMARY OF ACTIVITIES FOR THIS QUARTER (Q2FY23)

SELECTED MTAPS GHSA INDICATOR PROGRESS



Annex Figure 1. MSC1. # of AMR-related in-country meetings or activities conducted with multisectoral participation in PY5Q2

Annex Table 2.1 IP3. % of MTaPS-supported facilities that are using standardized tools for monitoring IPC and informing programmatic improvement

	Country											
Quarter	Bangladesh[1]	Cameroon	Côte d'Ivoire	DRC[2]	Ethiopia[3]	Kenya	Mali	Mozambique[4]	Nigeria[5]	Senegal[6]	Tanzania	Uganda[7]
PY4Q2	50% (2/4)	100% (12/12)	100% (20/20)	100% (7/7)	-	100% (20/20)	100% (16/16)	100% (7/7)	0% (0/7)	57% (8/14)	100% (10/10)	100% (13/13)
PY4Q3	50% (2/4)	100% (12/12)	100% (20/20)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (3/3)	28% (2/7)	61% (8/13)	100% (10/10)	100% (13/13)
PY4Q4	100% (4/4)	100% (12/12)	100% (20/20)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (7/7)	100% (7/7)	100% (13/13)	100% (10/10)	100% (13/13)
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)

[1] Five new facilities were added at the beginning of PY5. Progress has been seen since last quarter; six facilities received supportive supervision and training in PY5Q2.
[2] Five facilities were added in PY4Q3. In PY5Q2, six facilities did not receive supportive supervision; however, it is known that the DTCs are functional.

[3] In PY4Q1-Q2, work resumed after a pause in PY3; facilities were selected but work had not started as the work plan had not been approved. In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two additional hospitals were supported. The target is to support eight hospitals before the project year-end.
[4] In PY4Q3, a new IPC coordinator was hired and could provide supportive supervision to three HFs; the remaining facilities did not have supportive supervision, and information could not be collected for this indicator. In PY5Q2, the remaining four facilities received supportive supervision.
[5] In PY4Q2, two of the initial three facilities were dropped because of a lack of support from MOH, and six facilities were identified to replace them. In PY4Q3, the IPC team started the implementation of its work plan in one facility, following the completion of capacity training for its IPC team.
[6] In PY4 Q3, one facility was removed as the hospital had temporarily closed. In PY5, an assessment found that Hann Mariste Health Center had inadequate IPC capacity; in Q2, an IPC strategic plan was created, and validation is forthcoming. This facility was newly added in PY5. Data for the two remaining facilities was not obtained; the facilities have IPC action plans, and supervision and performance evaluations are planned for May to collect this information.
[7] In PY5, the number of facilities was reduced to seven due to funding constraints and the need to scale down activities.

Annex Table 2.2. IP5. % of MTaPS-supported facilities implementing continuous quality improvement (CQI) to improve IPC

	Country											
Quarter	Bangladesh[1]	Cameroon	Côte d'Ivoire	DRC[2]	Ethiopia[3]	Kenya	Mali[4]	Mozambique[5]	Nigeria[6]	Senegal[7]	Tanzania	Uganda[8]
PY4Q2	50% (2/4)	100% (12/12)	100% (20/20)	100% (7/7)	-	100% (20/20)	100% (16/16)	100% (7/7)	14% (1/7)	57% (8/14)	100% (10/10)	100% (13/13)
PY4Q3	50% (2/4)	100% (12/12)	100% (20/20)	100% (12/12)	0% (0/5)	100% (20/20)	100% (16/16)	100% (3/3)	14% (1/7)	61% (8/13)	100% (10/10)	100% (13/13)
PY4Q4	50% (2/4)	100% (12/12)	100% (20/20)	100% (12/12)	0% (0/5)	100% (20/20)	100% (16/16)	100% (7/7)	14% (1/7)	92% (12/13)	100% (10/10)	100% (13/13)
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)

[1] Five new facilities were added at the beginning of PY5. A consultant is being hired to assist in developing and updating CQI plans in Q2 and implementing the plans in the remaining facilities. Progress has been seen since last quarter; six facilities received supportive supervision and training in PY5Q2.
[2] Five facilities were added in PY4Q3. In PY5Q2, six facilities did not receive supportive supervision; however, it is known that the DTCs are functional.
[3] In PY4Q1-Q2 work resumed after a pause in PY3; facilities were selected but work had not started as the work plan had not been approved. In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two additional hospitals were supported. The target is to support eight hospitals before the project year-end.
[4] In PY5Q1, the Dermatology Hospital of Bamako had not begun implementing action plans. In Q2, all facilities implemented CQI.
[5] In PY4Q3, a new IPC coordinator was hired and could provide supportive supervision to three HFs; the remaining facilities did not have supportive supervision, and information could not be collected for this indicator. In PY5Q2, the remaining four facilities received supportive supervision.
[6] In PY4Q2, two of the initial three facilities were dropped because of the lack of support from MOH, and six facilities were identified to replace them. In PY4Q3, the IPC team started implementation of its CQI plan in one facility, following the completion of capacity training for its IPC team.
[7] In PY4 Q3, one facility was removed as the hospital had temporarily closed. In PY5, an assessment of Hann Mariste Health Center found that the facility had inadequate IPC capacity. In Q2, an IPC strategic plan was created, and validation is forthcoming. This facility was newly added in PY5. In PY5Q2, four facilities conducted a self-evaluation. The six facilities that are implementing standardized tools and the remaining two have not been evaluated for CQI; supervision and evaluation will be conducted in May to collect this information.
[8] In PY5 the number of supported facilities was reduced to seven due to funding constraints and the need to scale down activities.

Annex Table 2.3. IP6. % of MTaPS-supported facilities with functional IPC committees

Country												
Quarter	Bangladesh[1]	Cameroon	Côte d'Ivoire	DRC[2]	Ethiopia[3]	Kenya	Mali	Mozambique[4]	Nigeria[5]	Senegal[6]	Tanzania	Uganda[7]
PY4Q2	50% (2/4)	100% (12/12)	100% (20/20)	100% (7/7)	-	100% (20/20)	100% (16/16)	100% (7/7)	14% (1/7)	57% (8/14)	100% (10/10)	100% (13/13)
PY4Q3	100% (4/4)	92% (11/12)	100% (20/20)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (3/3)	28% (2/7)	61% (8/13)	100% (10/10)	100% (13/13)
PY4Q4	100% (4/4)	100% (12/12)	100% (20/20)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (7/7)	86% (6/7)	92% (12/13)	100% (10/10)	100% (13/13)
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)

[1] An additional five facilities were added at the beginning of PY5.
[2] Five facilities were added in PY4Q3. In PY5Q2, six facilities did not receive supportive supervision; however, it is known that the DTCs are functional.
[3] In PY4Q1-Q2, work resumed after a pause in PY3; facilities were selected but work had not started as the work plan had not been approved. In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two additional hospitals were supported. The target is to support eight hospitals in having functional IPC committees before the project year-end.
[4] In PY4Q3, a new IPC coordinator was hired and could only support three HFs in IPC. The other four facilities were added back in Q4.
[5] In PY4Q2, two of the initial three facilities were dropped because of the lack of support from MOH, and six facilities were identified to replace them. IPC committees at supported facilities held a meeting in PY4Q1 to inaugurate the committee and a second meeting in PY4Q2 to review the facility IPC work plan developed by the IPC team.
[6] In PY4 Q3, one facility was removed as the hospital has temporarily closed. In PY5, an assessment found that Hann Mariste Health Center had inadequate IPC capacity; in Q2, an IPC strategic plan was created, and validation is forthcoming. This facility was newly added in PY5. Data for the two remaining facilities was not obtained; the facilities have IPC action plans, and supervision and performance evaluations are planned for May to collect this information.
[7] In PY5, the number of supported facilities was reduced to seven due to funding constraints and the need to scale down activities.

Annex Table 2.4. AS2. % of MTaPS-supported facilities' medicines and therapeutics/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework

Country													
Quarter	Bangladesh[1]	Burkina Faso[2]	Cameroon	Côte d'Ivoire[3]	DRC[4]	Ethiopia[5]	Kenya[6]	Mali[7]	Mozambique	Nigeria[8]	Senegal[9]	Tanzania	Uganda[10]
PY4Q2	50% (2/4)	0% (0/10)	92% (11/12)	50% (10/20)	100% (7/7)	-	91% (21/23)	88% (14/16)	71% (5/7)	14% (1/7)	0% (0/14)	100% (10/10)	100% (13/13)
PY4Q3	50% (2/4)	0% (0/10)	100% (12/12)	100% (20/20)	100% (12/12)	0% (0/5)	91% (21/23)	100% (16/16)	14% (2/7)	43% (3/7)	0% (0/13)	100% (10/10)	100% (13/13)
PY4Q4	50% (2/4)	0% (0/10)	100% (12/12)	100% (20/20)	100% (12/12)	0% (0/5)	91% (21/23)	75% (12/16)	43% (3/7)	100% (7/7)	0% (0/13)	100% (10/10)	100% (13/13)
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)	0% (0/13)	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)	0% (0/13)	100% (10/10)	100% (7/7)

[1] Five new facilities were added at the beginning of PY5. Four facilities have not received supportive supervision or training. In PY5Q2, six facilities received supportive supervision and training. During visits it was found that facilities are not carrying 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.
[2] In PY4, MTaPS Burkina Faso harmonized action plans for all hospitals. Indicator-related activities began in PY4Q3; however, DTCs did not function as planned, and improvement and monitoring frameworks were not implemented. In PY5Q1, AMS supervision and support were provided to all 10 facilities, and activities were implemented. In PY5Q2, MTaPS was unable to conduct supervision visits and obtain activity data. AMS supervision and visits are planned to resume in PY5Q3.
[3] In PY5Q1, six sites did not receive supportive supervision from the AMS team, thus, information for this indicator was not collected for the facilities.
[4] Five facilities were added in PY4Q3.
[5] In PY4Q3, facilities were selected, but work had not started as the work plan had not been approved. In PY4Q4, MTaPS identified gaps in AMS, including a lack of AMS committees; four of five hospitals established or reinstated their committees; however, improvement plans or frameworks had yet to be developed. In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two additional hospitals were supported. The target is to support eight hospitals before the project year-end.
[6] In PY5Q1, two community pharmacies were not implementing AMS activities for various underlying issues. One hospital has been added to MTaPS, which is undergoing preparatory work before activity implementation begins. In PY5Q2, all facilities have active AMS committees, however, the three previous facilities have not been able to implement additional activities.
[7] In PY4Q4, MTaPS Mali implemented virtual supportive supervision visits; however, four facilities did not attend, thus no progress/data was obtained for these facilities. 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, two facilities have reported competing priorities in implementing AMS activities.
[8] In PY4Q2, two of the initial three facilities were dropped because of the lack of support from MOH, and six facilities were identified to replace them.
[9] In PY4Q3, one facility was removed as the hospital had temporarily closed. In PY4, Senegal prioritized IPC activities. In PY5Q1, AMS activities have experienced delays due to delayed MOH endorsement of trainings. AMS activities have continued at the national level through PY5Q2; however, implementation of facility-level AMS activities have continued to experience challenges because of stakeholder support.
[10] In PY5, the number of facilities was reduced to seven due to funding constraints and the need to scale down activities.

Annex Table 2.5. AS4. % of MTaPS-supported facilities implementing CQI to improve AMS

	Country												
Quarter	Bangladesh[1]	Burkina Faso[2]	Cameroon	Côte d'Ivoire[3]	DRC[4]	Ethiopia[5]	Kenya[6]	Mali[7]	Mozambique[8]	Nigeria[9]	Senegal[10]	Tanzania[11]	Uganda[12]
PY4Q2	25% (1/4)	0% (0/10)	92% (11/12)	50% (10/20)	100% (7/7)	-	91% (21/23)	88% (14/16)	0% (5/7)	14% (1/7)	0% (0/14)	60% (6/10)	100% (13/13)
PY4Q3	25% (1/4)	0% (0/10)	100% (12/12)	100% (20/20)	100% (12/12)	0% (0/5)	91% (21/23)	100% (16/16)	14% (1/7)	14% (1/7)	0% (0/14)	60% (6/10)	100% (13/13)
PY4Q4	50% (2/4)	0% (0/10)	100% (12/12)	100% (20/20)	100% (12/12)	0% (0/5)	91% (21/23)	75% (12/16)	100% (7/7)	14% (1/7)	0% (0/14)	60% (6/10)	100% (13/13)
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)	0% (0/13)	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)	0% (0/13)	70% (7/10)	100% (7/7)

[1] Five new facilities were added at the beginning of PY5. In PY5Q2, six facilities received supportive supervision and training. During visits, it was found that two facilities are not carrying AMS activities as needed because of a lack of technical expertise and training. The MTaPS team gave strong feedback on AMS activities at each facility.
[2] In PY4, MTaPS Burkina Faso harmonized action plans for all hospitals. Indicator-related activities began in PY4Q3; however DTCs did not function as planned, and improvement plans and monitoring frameworks were not implemented. In PY5Q1, AMS supervision and support were provided to all 10 facilities and activities were implemented. In PY5Q2, MTaPS was unable to conduct supervision visits and obtain activity data. AMS supervision and visits are planned to resume in PY5Q3.
[3] In PY5Q1, six sites did not receive supportive supervision from the AMS team, thus information for this indicator was not collected for the facilities.
[4] Five facilities were added in PY4 Q3. In PY5Q2, supported facilities provided written reports on AMS activities; CQI activities were not included and just six facilities also received supervision visits to obtain this information.
[5] In PY3, activities were suspended. In PY4Q3, facilities were selected but work had not started as the work plan had not been approved. In Q4, MTaPS identified gaps in AMS, including a lack of AMS committees; four of five hospitals have established or

reinstated their committees; however, CQI did not begin to improve AMS. In PY5Q2, as requested by the Ethiopia MOH and Addis Ababa City Administration Health Bureau, two additional hospitals were supported. The target is to support eight hospitals before the project year-end.
[6] In PY5Q1, two community pharmacies were not implementing AMS activities for various underlying issues. One hospital has been added to MTaPS, which is undergoing preparatory work before activity implementation begins. In PY5Q2, all facilities have active AMS committees; however, the three previous facilities have not been able to implement additional activities.
[7] In PY4Q4, MTaPS Mali implemented virtual supportive supervision visits; however, four facilities did not attend, thus no progress/data was obtained for these facilities. 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, two facilities have reported competing priorities in implementing AMS activities.
[8] AMS site visits delayed for PY5, thus, no facility progress documented. Site visits are to begin at the start of PY5Q3.
[9] In PY4Q2, two of the initial three facilities were dropped due to lack of support from MOH, and six facilities were identified to replace them. Only one facility has begun AMS interventions; other facilities are delayed because of trainings and reprioritization.
[10] In PY4Q3, one facility was removed as the hospital had temporarily closed. In PY4, Senegal prioritized IPC activities. In PY5Q1, AMS activities have experienced delays due to delayed MOH endorsement of trainings. AMS activities have continued at the national level through PY5Q2; however, implementation of facility-level AMS activities have continued to experience challenges because of stakeholder support.
[11] In PY5Q1, four facilities have slow uptake of MTCs for AMS CQI implementation. The Tanzania team is conducting supportive supervision for MTCs and AMS CQI activities. Progress has been made in PY5Q2.
[12] In PY5, the number of facilities was reduced to seven due to funding constraints and the need to scale down activities.

PROGRESS ON WHO BENCHMARK ACTIONS (JEE SCORES)

Annex Table 2.6. Progress on multisectoral coordination (MSC) (P.3.1): achieved cumulatively with MTaPS' support (as of September 2022)

Benchmarks actions completed/supported	Country												
	BD	BF	CM	CI	CD	ET	KE	ML	MZ	NG	SN	TZ	UG
Achieved* cumulatively from the beginning of MTaPS to September 2022**													
Limited capacity—02 (4 actions)	0%	50%	50%	100%	50%	100%	50%	0%	50%	0%	50%	0%	50%
Developed capacity—03 (4 actions)	25%	50%	50%	75%	50%	100%	50%	75%	50%	50%	50%	50%	50%
Demonstrated capacity—04 (4 actions)	75%	50%	25%	75%	75%	100%	100%	100%	25%	75%	50%	75%	50%
Sustainable capacity—05 (5 actions)	20%	0%	0%	0%	20%	0%	40%	20%	0%	20%	20%	0%	0%

Bangladesh (BD), Burkina Faso (BF), Cameroon (CM), Côte d'Ivoire (CI), DRC (CD), Ethiopia (ET), Kenya (KE), Mali (ML), Mozambique (MZ), Nigeria (NG), Senegal (SN), Tanzania (TZ), Uganda (UG)
* Some benchmark actions were partially achieved as they are a compound of two or more separate components.
** Some actions are ongoing.

Annex Table 2.7. Progress on IPC (P.3.3): achieved cumulatively with MTaPS' support (as of September 2022)

Benchmarks actions completed/supported	Country												
	BD	BF*	CM	CI	CD	ET	KE	ML	MZ	NG	SN	TZ	UG
Achieved cumulatively from the beginning of MTaPS to September 2022*** **													
Limited capacity—02 (4 actions)	80%	--	80%	100%	80%	80%	80%	100%	80%	60%	60%	80%	100%
Developed capacity—03 (4 actions)	83%	--	83%	100%	67%	100%	67%	83%	67%	67%	100%	100%	100%
Demonstrated capacity—04 (4 actions)	20%	--	60%	80%	0%	80%	60%	40%	0%	0%	60%	100%	40%
Sustainable capacity—05 (5 actions)	0%	--	0%	0%	0%	0%	0%	0%	0%	0%	40%	100%	0%

Bangladesh (BD), Burkina Faso (BF), Cameroon (CM), Côte d'Ivoire (CI), DRC (CD), Ethiopia (ET), Kenya (KE), Mali (ML), Mozambique (MZ), Nigeria (NG), Senegal (SN), Tanzania (TZ), Uganda (UG)
*Burkina Faso does not implement IPC activities
** Some of the benchmark actions were partially achieved as they are a compound of two or more separate components.
*** Some actions are ongoing.

Annex Table 2.8. Progress on AMS (P.3.4): achieved cumulatively with MTaPS' support (as of September 2022)

Benchmarks actions completed/supported	Country												
	BD	BF	CM	CI	CD	ET	KE	ML	MZ	NG	SN	TZ	UG
Achieved* cumulatively from the beginning of MTaPS to September 2022**													
Limited capacity—02 (4 actions)	50%	50%	50%	75%	75%	75%	75%	75%	50%	100%	75%	100%	50%
Developed capacity—03 (4 actions)	33%	17%	33%	83%	33%	67%	83%	50%	50%	50%	33%	50%	33%
Demonstrated capacity—04 (4 actions)	0%	0%	29%	29%	0%	14%	14%	14%	14%	0%	0%	14%	29%
Sustainable capacity—05 (5 actions)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Bangladesh (BD), Burkina Faso (BF), Cameroon (CM), Côte d'Ivoire (CI), DRC (CD), Ethiopia (ET), Kenya (KE), Mali (ML), Mozambique (MZ), Nigeria (NG), Senegal (SN), Tanzania (TZ), Uganda (UG)
* Some of the benchmark actions were partially achieved as they are a compound of two or more separate components.
** Some actions are ongoing.

ANNEX 3. MONTHLY COVID-19 INDICATORS, QUARTER 2, YEAR 5

Annex Table 3.1. Number of staff and volunteers trained on COVID-19 vaccine-related topics with MTaPS' support (COV 2. [CV1.3-3.])

Portfolio/ disaggregation	Country	January–March 2023
	Bangladesh	0
	Cameroon	0
	Côte d'Ivoire	163
	Kenya	215
	Mozambique	130
	Nigeria	273
	Philippines	211
	Rwanda	46
	Senegal	42
	Tanzania	30
	Total	**1,110**
Sex	Male	517
	Female	593
	Unknown sex	0
Technical area*	Storage, handling, delivery, and waste management of COVID-19 vaccines	816
	Planning and organizing COVID-19 vaccination sessions	270
	AEFI monitoring for COVID-19 vaccination	515
	Recording and monitoring COVID-19 vaccination	300
	Communication with the community about COVID-19 vaccination	300
	Others**	46

*Disaggregation by technical area for training staff and volunteers is not exclusive of each other.
**A training in Rwanda was in the information system (iRMIS) that supports registration of COVID-19 vaccines and related market authorizations among other things, under the broader areas of policy, planning, coordination, and regulatory support.

Annex Table 3.2. Number of COVID-19 vaccine multisectoral coordination mechanisms that meet regularly (at least once a month) with MTaPS' support (COV 4. [0.8])

Portfolio/ disaggregation	Country	January–March 2023
	Bangladesh	0
	Côte d'Ivoire	4
	Kenya	0
	Mozambique	0
	Philippines	0
	Rwanda	0
	Senegal	0
	Total	**4**

Annex Table 3.3. Number of health facilities where MTaPS provided support for IPC and/or water, sanitation, and hygiene (WASH) for COVID-19 (COV 5. [(CV.2.4-17])

Portfolio/ disaggregation	Country	January–March 2023
	Bangladesh	N/A*
	Cameroon	N/A
	Côte d'Ivoire	0
	Kenya	0
	Senegal	98
	Tanzania	N/A
	Total	**98**

*'N/A implies that data is not available because related activity was not planned in Quarter 2 Year 5.

Annex Table 3.4. Number of workers who received COVID-19-related training in IPC and/or WASH with MTaPS' support (COV 6. [CV.2.4-18])

Portfolio/ disaggregation	Country	January–March 2023
	Bangladesh	N/A
	Cameroon	N/A
	Côte d'Ivoire	0
	Kenya	0
	Senegal	42
	Tanzania	N/A
	Total	**42**
Sex	Male	36
	Female	6
	Unknown sex	0
Trainee Category	HCW	12
	Non-HCW	30

Annex Table 3.5. 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	January–March 2023
	Bangladesh	0
	Cameroon	0
	Côte d'Ivoire	0
	Kenya	0
	Mozambique	2
	Philippines	0
	Rwanda	0
	Senegal	0
	Tanzania	0
	Madagascar	5
	Total	**7**
Technical area	Risk communication and community engagement	0
	Surveillance, rapid response teams, case investigation	0
	Laboratory systems	4
	Case management	0
	IPC	2
	Coordination and operations	1
	Vaccine introduction (incl., PV)	0

Annex Table 3.6. Number of AEFI reports reviewed by the appropriate responsible bodies with USG support among those submitted to country monitoring systems (COV1 [CV.1.5-9])

Portfolio/ disaggregation	Country	January–March 2023
	Bangladesh	11
	Côte d'Ivoire	35
	Nigeria	0
	Kenya	1,170
	Mozambique	N/A
	Rwanda	N/A
	Tanzania	142
	Senegal	0
	Total	**1,358**
USG Support	Direct support	11
	Indirect support	1347
Severity of event*	Minor	166
	Moderate	15
	Serious/severe	7

*In Kenya, data on severity of events not available from government, although 1,170 reports were reviewed with MTaPS support.

Annex Table 3.7. Number of tools (ex. reporting forms, checklists, and job aids) for planning and conducting safety monitoring developed, adapted, or disseminated with MTaPS' support (COV 3. [.7])

Portfolio/ disaggregation	Country	January–March 2023
	Bangladesh	0
	Côte d'Ivoire	0
	Kenya	0
	Mozambique	N/A
	Rwanda	0
	Senegal	0
	Total	**0**
Technical area	Establishing surveillance systems	0
	Monitoring and responding to AEFIs	0
	Monitoring and responding to AEs of special interest	0
	Safety data management systems	0
	COVID-19 vaccine safety communication	0

Annex Table 3.8. Country has developed or adapted COVID-19 vaccine microplans with MTaPS' support (COV 8. [C.1])

Country	January–March 2023
Bangladesh	No
Côte d'Ivoire	Yes
Kenya	N/A
Senegal	N/A

Annex Table 3.9. Country has improved the regulatory and/or policy environment for COVID-19 vaccines with MTaPS support (COV 9. (C.2))

Country	January–March 2023
Bangladesh	Yes
Côte d'Ivoire	No
Kenya	Yes
Mozambique	N/A
Rwanda	Yes
Senegal	N/A

Annex Table 3.10. Country has plans for vaccine distribution to the subnational level developed, adapted, or disseminated with MTaPS support (COV 10. (C.3))

Country	January–March 2023
Côte d'Ivoire	Yes
Kenya	N/A
Senegal	N/A

Annex Table 3.11. Country has developed or adapted vaccine tracking systems to track COVID-19 vaccine with MTaPS support (COV 11. (C.4))

Country	January–March 2023
Côte d'Ivoire	No
Kenya	N/A
Philippines	Yes*
Senegal	N/A

*In Philippines, the vaccine tracking system was developed last quarter and is being used this quarter to track COVID-19 vaccines

Annex Table 3.12. Percentage of MTaPS-support HFs in compliance with IPC COVID-19 guidelines/SOPs (COV 12)

Country	January–March 2023
Cameroon	0
Côte d'Ivoire	N/A
Kenya	N/A
Senegal	0

Annex Table 3.13. Number of health workers trained in COVID-19 testing or specimen transport with USG support (CV.2.4-15)

Country		January–March 2023
Madagascar		0
Sex	Male	0
	Female	0
	Unknown sex	0

Annex Table 3.14. Number of health workers who are remunerated by MTaPS to support workload required for COVID-19 vaccine delivery in the reporting period (COV 14 (CV.1.3-4))

Portfolio/ disaggregation	Country	January–March, 2023
	Cameroon	0
	Côte d'Ivoire	1274
	Nigeria	626
	Total	**1,900**
Cadre	Clinical	239
	Community/law	56
	Data management	730
	Supervision and logistics	875

Annex Table 3.15. Number of vaccination sites supported by MTaPS during the reporting period (COV 15 (CV.1.4-5))

Portfolio/ disaggregation	Country	January–March 2023
	Cameroon	0
	Côte d'Ivoire	9,610
	Nigeria	215
	Senegal	N/A
	Total	**9,825**
Type	Fixed site	2,245
	Community-based outreach vaccination sites	7,566
	Mobile team (or clinic) or transit team strategy	14
	Mass vaccination sites/campaigns	0

Annex Table 3.16. Number of people who have received a first dose of an approved COVID-19 vaccine (COV-1) with MTAPS direct support (COV 16 (CV.1.4-6)

Portfolio/ disaggregation	Country	January–March 2023
	Nigeria*	0*
	Senegal	0
	Cameroon	0
	Total	**0**
Vaccine brand	Moderna	0
	Pfizer	0
	Astra Zeneca	0
	Janssen	0
	Other	0
Sex	Male	0
	Female	0
	Unknown sex	0

*In Nigeria, the first Janssen COVID-19 vaccine is the last recommended dose. Therefore, to avoid duplication of data, the first dose of Janssen vaccine is reported below under indicator CV 1.4-7.

Annex Table 3.17. Number of people who received a last recommended dose of primary series of an approved COVID-19 vaccine (COV–17 (CV. 1.4.7) with MTAPS direct support

Portfolio/ disaggregation	Country	January–March 2023
	Nigeria	8,198
	Senegal	N/A
	Cameroon	0
	Total	**8,198**
Vaccine brand	Moderna	0
	Pfizer	0
	Astra Zeneca	0
	Janssen	8,198
Sex	Male	3,885
	Female	4,313
	Unknown sex	0

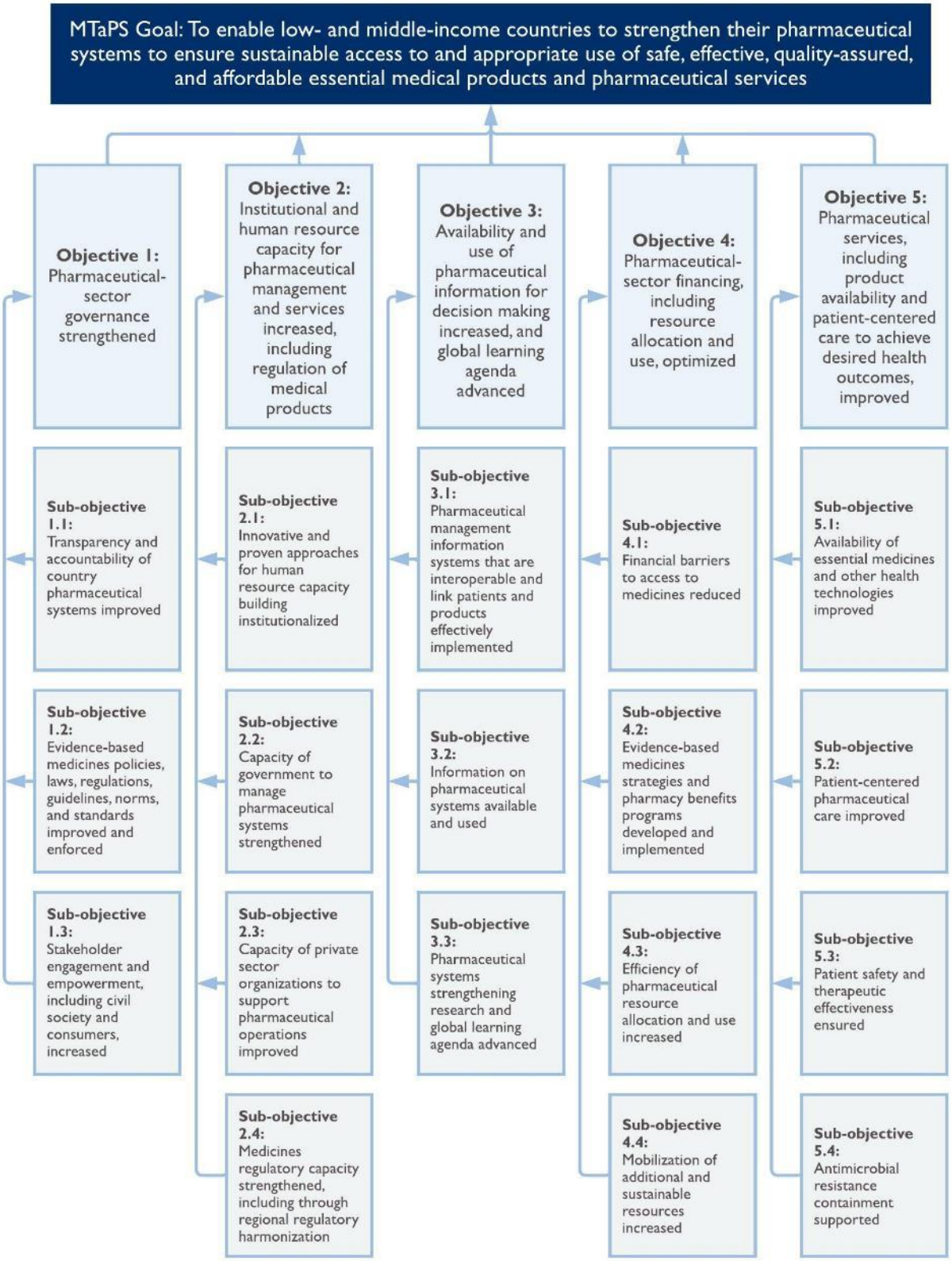
Annex Table 3.18. Number of people who received a booster dose of primary series of an approved COVID-19 vaccine (COV-2,3,4) with MTaPS support [COV–17 (CV. 1.4.8)]

Portfolio/ disaggregation	Country	January–March 2023
	Nigeria	5,788
	Senegal	N/A
	Cameroon	0
	Total	**5,788**
Vaccine brand	Moderna	0
	Pfizer	0
	Astra Zeneca	0
	Janssen	5,788
	Other	0
Sex	Male	2,332
	Female	3,456
	Unknown sex	0

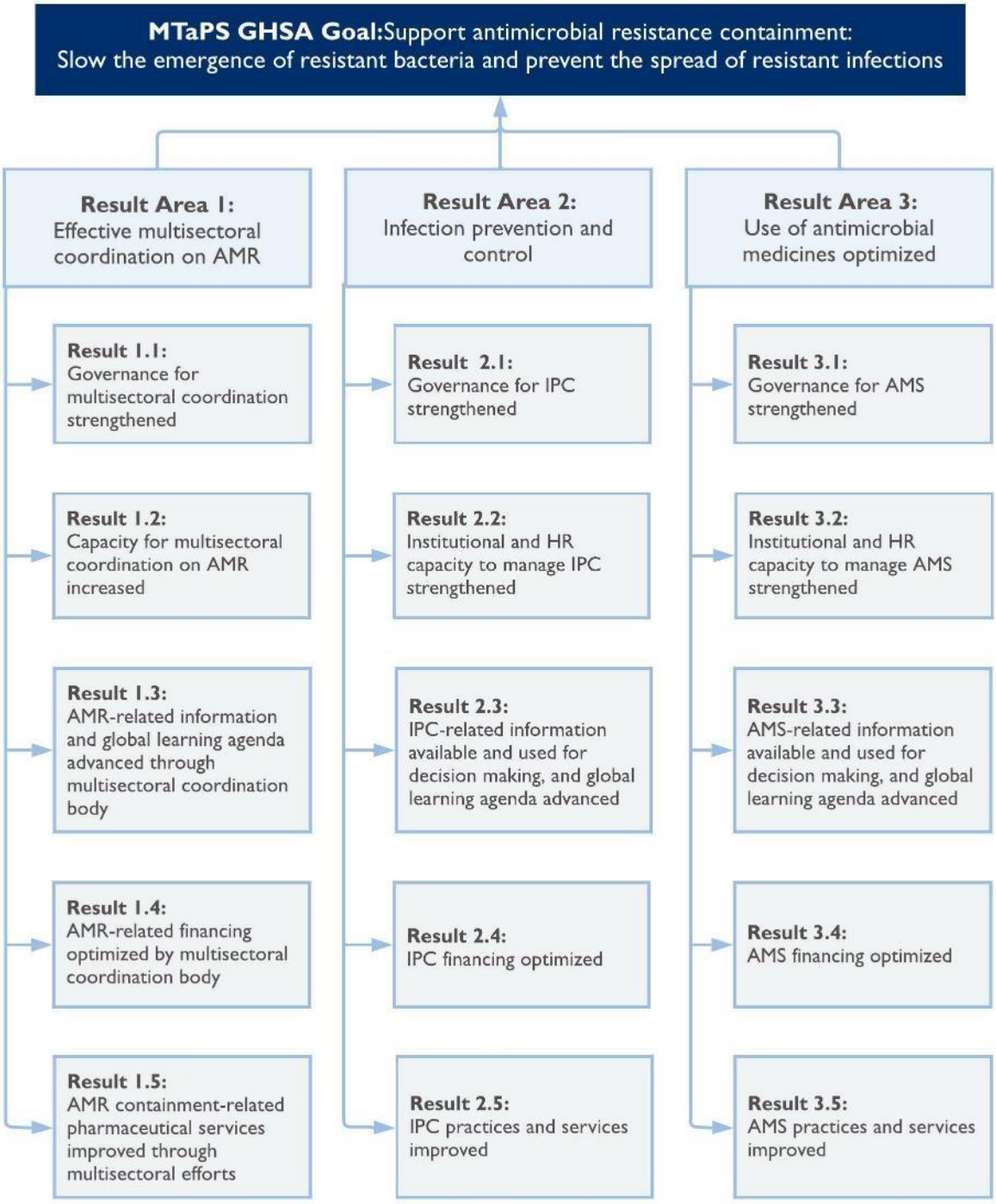
Annex Table 3.19. Number of facilities receiving TA for case management, such as facility-level assessments, guidance and/or training [COV 21 (CV.2.5-19)]

Portfolio/ Disaggregation	Country	January–March 2023
	Senegal	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