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

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FISCAL YEAR 2022
QUARTER 3
(APRIL–JUNE 2022) REPORT

USAID
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PROJECT OVERVIEW

Program Name:		USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program
Reporting Period:		Fiscal Year (FY) 2022 Quarter 3 (April- June 2022)
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

2022. *USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program: Quarterly Report Fiscal Year 2022 Quarter 3 (April –June 2022).* 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.

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ACRONYMS AND ABBREVIATIONS

3HP	once-weekly dose of isoniazid and rifapentine for 12 weeks
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, PI	*Autoridade Nacional Reguladora de Medicamentos, Instituto Público* [National Medicines Regulatory Authority, Public Institute] (Mozambique)
ANEH	National Hospital Evaluation Agency (Mali)
ARC	antimicrobial resistance containment
ARV	antiretroviral
ARVs	antiretroviral medicines
ASEAN	Association of Southeast Asian Nations
ASM	active safety monitoring
ASO	AMS optimal access and use
ASRAMES	*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* (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)

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
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 TB
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
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
HCAC	Health Care Accreditation Council
HCAD	Health Communication and Awareness Directorate
HCAI	health care-associated infection (sometimes HAI)
HCP	health care provider/practitioner/professional
HCW	health care worker
HCWM	health care waste management
HEOC	health emergency operation center
HEU	health economic unit
HF	health facility
HH	hand hygiene
HHSAF	Hand Hygiene Self-Assessment Framework
HQ	headquarters
HSR 2022	Seventh Global Symposium on Health Systems Research
HTA	health technology assessment
HWDP	health workforce development plan
HZ	health zone
ICC	Infection Prevention and Control Committee
iCCM	integrated community case management
ICU	intensive care unit
IDDS	Infectious Disease Detection and Surveillance
IEC	information education 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
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 and Tanzania)
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
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
MOHCDGEC	Ministry of Health, Community Development, Gender, Elderly, and Children (Tanzania)
MOHFW	Ministry of Health and Family Welfare (Bangladesh)
MOHP	Ministry of Health and Population (Nepal)
MOPH	Ministry of Public Health
MPTF	Multi-Partner Trust Fund Office
MSC	multisectoral coordination
MSC-AMR	multisectoral coordination on AMR
MSH	Management Sciences for Health
MSR	medical and surgical requisites
MSSFPO	Momentum Safe Surgery in Family Planning and Obstetrics
MTaPS	Medicines, Technologies, and Pharmaceutical Services
MTC	Medicines and Therapeutics Committee
NAMRAC	National Antimicrobial Resistance Advisory Committee
NAMRsC	national AMR subcommittee
NAP	national action plan
NAP-AMR	national action plan for AMR
NASIC	National Antimicrobial Stewardship Interagency Committee (Kenya)
NC-AMR	National Commission on AMR (DRC)
NCAT	National Committee for Antibiotic Treatment (Senegal)
NCD	noncommunicable disease
NCDC	Nigeria Center for Disease Control
NCDC	National Curriculum Development Center (Uganda)
NDA	National Drug Authority (Uganda)
NEML	national essential medicines list
NGO	nongovernmental organization
NMP	national medicines policy
NMRA	national medicines regulatory authority
NPC	National Pharmacy Council
NRA	national regulatory authority
NSP	national strategic plan
NTC	National Technical Committee (Bangladesh)
NTP	National Tuberculosis Control Program (Bangladesh)
OH	One Health
OHP	One Health Platform
OHS	Office of Health Systems

OHT	One Health Tool
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 Department (Philippines)
PEA	political economy analysis
PERAC	pharmacovigilance expert review and advisory committee
PIES	provider integration and engagement system
PMDT	programmatic management of drug-resistant TB
PMED	Pharmaceuticals and Medical Equipment Directorate (Ethiopia)
PMS	post-market surveillance
POPCOM	Commission on Population and Development (Philippines)
PPB	Pharmacy and Poisons Board of Kenya
PPE	personal protective equipment
PPM	pooled procurement mechanism
PPS	point prevalence study
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
TB	tuberculosis
TLD	dolutegravir-based tenofovir + lamivudine + dolutegravir
TOE	table of organization and equipment
TOR	terms of reference
TOT	training of trainers
TPT	TB preventive treatment
TS	technical secretariat
TTC	technical thematic committee
TWC	technical working committee

TWG	technical working group
UAT	user acceptance testing
UHC	universal health coverage
UIMS	Upazila Inventory Management System (Bangladesh)
UNFPA	United Nations Population Fund
USAID	US Agency for International Development
USD	US dollar
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 & 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

USAID awarded the MTaPS program to enable LMICs to 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.

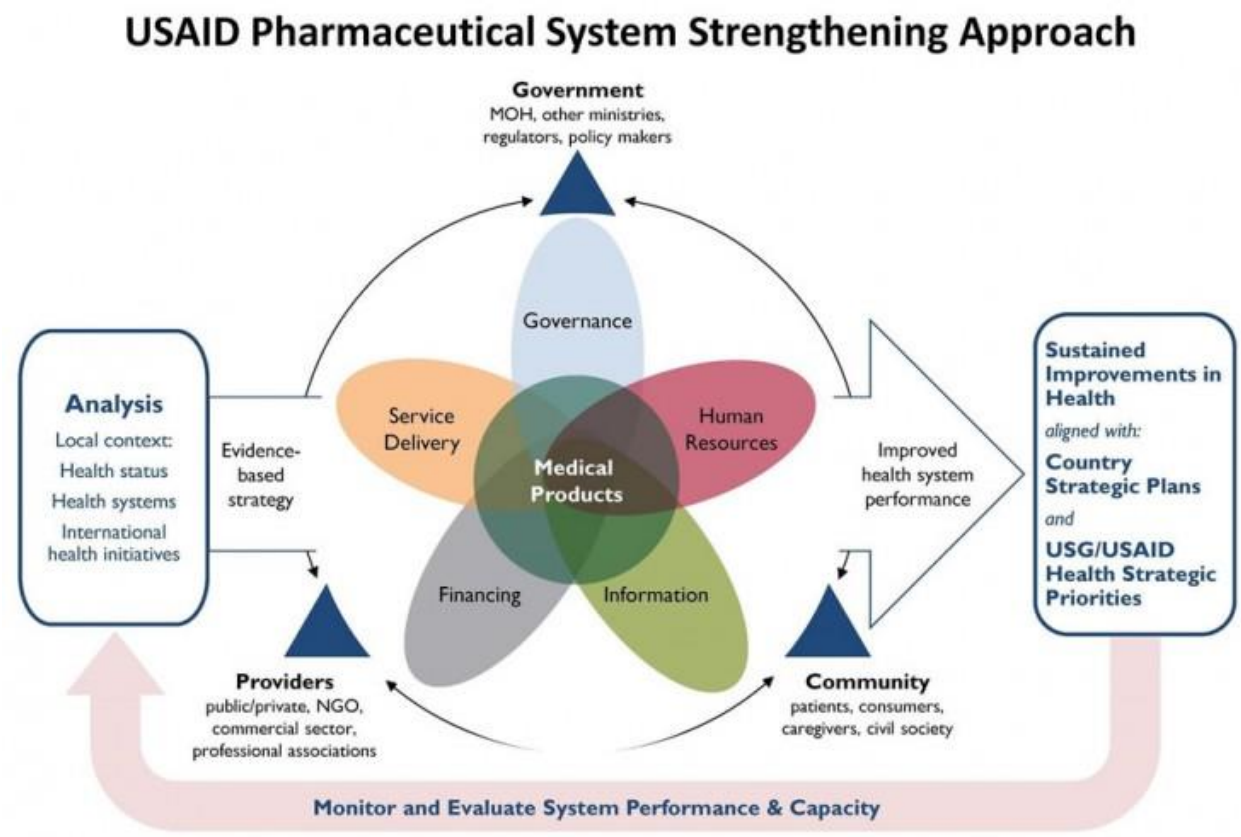


Figure 1. USAID pharmaceutical systems strengthening approach

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.

D. ABOUT THIS REPORT

This report presents activity progress and achievements by portfolio for FY 2022, quarter 3 (April–June 2022). It summarizes program performance and key challenges and is organized by program objectives, funding stream, country, and health element portfolios.

Implementation of planned activities this quarter continued to be impacted by the COVID-19 pandemic. Some activities have been delayed or postponed due to the general slowdown of activities and restrictions on gatherings/movement, as well as the limited availability of staff.

2. PROGRESS BY OBJECTIVES

A. OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

MTaPS 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

CUMULATIVE PERFORMANCE TO DATE

Promoting transparency and accountability is a prerequisite for improving access to essential medicines and strengthening health systems to achieve UHC. Poor governance in pharmaceutical systems can reduce access to pharmaceutical products, inflate medicine prices, and waste scarce health system resources. 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 respond to challenges. This section documents selected activities from the start of the program to demonstrate cumulative improvements achieved in each MTaPS governance sub-objective through the application of MTaPS' systematic approaches.

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

MTaPS **Rwanda** has provided regular support to strengthen pharmaceutical systems in Rwanda by engaging with: MOH and its institutions, including Rwanda FDA; the MCCH division; and the Rwanda Biomedical Center. Through support to Rwanda FDA, MTaPS helped develop the four-year Rwanda FDA Strategic Plan (2021–2024); four regulations; and other pharmaceutical-sector regulatory documents, including guidelines, manuals, and SOPs. MTaPS also supported an internal audit at Rwanda FDA as part of the implementation of a QMS based on ISO 9001:2015 requirements in June 2021; a quality manual and corresponding SOPs were approved by the Authority's board in May 2021. Additionally, MTaPS contributed to strengthening five pharmaceutical regulatory enforcement mechanisms: the national regulatory system, vigilance, product registration and MA, licensing establishments, and regulatory inspection.

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

Based on a detailed gap analysis, the Nepal Drug Act (1978) was revised to bring DDA practices in line with WHO best practices and with that of a mature regulatory authority. The revised Drug Act version 6 is now in final review for submission to MOHP for approval. MTaPS **Nepal** also assisted with the development of an accompanying concept note advocating for the new law and several companion codes, regulations, and guidelines linked to the revised law. A consultative process and the drafting of an

options analysis to revise the existing National Medicines Policy 1995 has started and aims to bring the policy in line with the updated Nepal Drug Act, Nepal Health Policy (2015), and Nepal National Health Strategy (2015–2022).

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

In **DRC**, MTaPS provided support in building the capacity of 350 community members to fulfill their role in monitoring and overseeing medicines management, particularly with respect to MNCH; FP/RH; and TB commodities with a focus on stock management, accountability between the HF and the community, logistic data collection, and storage conditions. In PY3 Q2, MTaPS DRC supported DPS to conduct four provincial TWG meetings in North Kivu and one in Ituri. Participants included representatives from DPS, IPs, and civil society. The engagement of communities and CSOs helped increase community involvement in health product management, build communities' capacity, and improve the management of medical products at the HF and CCS levels.

In PY3 Q2, MTaPS **Burkina Faso** (GHSA) supported the establishment of DTCs in ten HCFs, including regional hospitals, teaching hospitals, and district medical centers. The final DTC was established in March 2022 in Koudougou, where MTaPS supported training of 22 DTC members. The DTC members went on to develop draft AMS action plans as part of a CQI program.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

In **Indonesia,** transparency and accountability are important in all aspects of pharmaceutical service delivery, even in less obvious areas, such as the topic selection process for HTAs. MTaPS supported the Indonesian MOH to better understand topic selection processes of committees by conducting a literature search. Recommendations from the research included improving the HTA topic selection process using MCDA; submitting HTA proposals digitally through the Pusjak PDK, MOH website; and publishing results of the selection process when it is conducted.

In Q3, MTaPS supported **Rwanda** FDA in stakeholder validation of a comprehensive five-year Rwanda FDA Business Plan 2021–2026. The business plan aims to enhance the financial capacity and mobilization of required resources to support the sustainability of Rwanda FDA operations.

MTaPS **Senegal** supported the revitalization of ICCs in five selected district and regional hospitals. The revitalization process was initiated using the WHO IPCAF to conduct baseline assessments. Data from the assessments were used to identify improvement needs in areas of IPC, which is the mandate of ICCs.

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

In **Senegal**, MTaPS supported the implementation of capacity-building interventions to increase compliance with antibiotic STGs. As part of this effort, MTaPS supported NCAT to organize a meeting in May to discuss next steps for implementing the approved antibiotic STGs. Meeting participants decided to move forward with forming three technical groups, focused on antibiotic treatment of

community infection in children and adults, antibiotic treatment of HCAIs, and antibiotic prophylaxis. The NCAT Secretariat will finalize the plan for the dissemination of and training on the antibiotic treatment STGs.

MTaPS **Philippines** continued to support DOH in implementing their PSCM road map as part of implementing the UHC law. A key activity this quarter was the finalization of a master stock-keeping unit (SKU) list which is now 86% complete (836 SKUs standardized out of 967 SKUs received). This list will be used to ensure uniform and standard product profiles across the system, promote end-to-end visibility, track inventory utilization and history, and streamline operations across the system.

In **Burkina Faso**, MTaPS supported the development of a ministerial order regulating AMU in the animal sector based on the developed animal health AMS guidelines. Seventeen participants from DGSV; legal counsel from the Ministry of Agriculture, Animal Resources, and Fisheries; the Collective of Private Veterinarians; National Order of Veterinarians (ONV); Village Poultry Promotion Center; National School of Animal Health; Association of Senior Technicians and Livestock Advisors; veterinary clinics; Consumer Association (league); and FAO attended the workshop. The draft ministerial order is a key milestone and a real pathway to reduce AMC and to combat AMR.

Also in **Burkina Faso,** MTaPS supported the National Drug Regulatory Agency to organize a series of workshops to review and update the national therapeutic formulary (NTF). The NTF's revision aims to provide practitioners with an updated tool that is in line with the 2020 NEML. The review consisted of identifying discrepancies between the 2018 NTF (based on the 2016 NEML) and the 2020 NEML. The draft NTF is now available for a secondary review and integration of all suggested modifications and additions.

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

In **DRC**, MTaPS' partner, FHI 360, organized four handover sessions—with each session gathering community leaders and RDT team members from three HAs—to reach individuals from all 12 supported HAs. One hundred and twenty-three people (35 female, 88 male) from different parts of the communities participated, including neighborhood chiefs, women leaders, youth leaders, religious leaders, HCPs, and BCZ. Participants expressed satisfaction with the support they received during the DEPS project, while promising to continue to collaborate with HCPs to ensure that the activities continue, formulating recommendations to this end.

MTaPS DRC also continued to support the RH subgroup in Ituri province to hold its thematic meeting. Participants, including representatives from CSOs, provided updates on their RH interventions and information on security alerts, ongoing projects, perspectives, and evaluations carried out and/or planned.

In **Jordan**, MTaPS developed materials for CASS based on the latest evidence and created posters for students and information pamphlets for parents to be distributed during AMR awareness sessions.

In the **Philippines**, MTaPS and FDA delivered e-learning course on PSS, PSCM overview, and warehouse management as a webinar to 196 attendees, including representatives from community-based organizations (CBOs) to ensure the course's readiness and quality prior to its upload to the DOH eLearning Academy.

BEST PRACTICES/LESSONS LEARNED

- Evidence-based pharmaceutical system policies need to move from development to use for them to have impact.
- Evidence-based documentation for pharmaceutical systems becomes outdated and therefore must be reviewed regularly to remain current.
- In many countries, ministerial orders or directives form the basis of implementation for various pharmaceutical system policies.
- There are a range of committees that support the governance of pharmaceutical systems. These committees need constant attention to ensure their ongoing relevance and use.

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

MTaPS 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

CUMULATIVE PERFORMANCE TO DATE

Capacity building of individuals and institutions is a critical aspect of sustainability within the MTaPS program. Sustainable pharmaceutical systems require more than just training. Moving into PY4, MTaPS is taking a sharper focus on capacity building, ensuring that the range of activities the program is involved in produces a lasting legacy in areas, such as, but not limited to, AMR working groups that are self-sustaining; eLearning materials that are integrated into the learning system of ministries for ongoing use; and digital solutions that are seamlessly embedded into the workflows of pharmaceutical systems. This section documents selected MTaPS institutional and human resource capacity-building activities to demonstrate improvements achieved through the application of MTaPS' PSS approach.

One notable example is the approach MTaPS has taken to strengthen the capacity of governments to deliver effective regulatory services for medical products regulation (sub objective 2.4). Institutional capacity building in regulatory systems 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 assessments and reviewed previous assessments to determine the ML of the regulatory systems in five countries (Bangladesh, Mozambique, Nepal, the Philippines, and Rwanda) and develop institutional development plans to address the gaps identified. MTaPS worked with NRAs in Bangladesh, Mozambique, Nepal, and the Philippines to implement QMS for efficient delivery of regulatory services. The program also worked to streamline and improve registration systems through capacity building by imparting principles of Good Review Practices and use of electronic IMSs.

MTaPS also worked with several continental and regional organizations (e.g., ASEAN, SEARN, etc.) to support convergence and harmonization of medical product regulation in medicine registration, PV, regulatory inspections, and regulatory IMS.

MTaPS offered technical assistance to validate and use the regional centers of regulatory excellence's M&E tool to measure the performance of 11 designated centers and provide baseline information on the status of the institutions and organizations providing capacity development in medicine regulation.

In addition, MTaPS supported the convergence of medicine regulation in ASEAN, SEARN, and IGAD by facilitating registration and PV activities that supported exchange of information and learnings to foster similar approach and application of standards for evaluation of medicines and monitoring the safety of medicines.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

For this quarter, the following innovative approaches are highlighted.

In **Nepal and Bangladesh,** MTaPS undertook a competency mapping exercise using a data driven approach to determine competency gaps and subsequent training requirements within regulatory systems. Specifically, in Nepal, the competency mapping report was prepared for DDA along with a proposed prioritized training plan.

MTaPS **Kenya** provided onsite mentorship to 16 hospitals and 2 community pharmacies in 3 focus counties (Kisumu, Murang'a, and Nyeri) during supportive supervision visits. Through these regular follow-ups, MTaPS is incrementally developing COEs for AMS using CQI and mentorship activities.

MTaPS **Mali** continues to support selected training institutions to manage their eLearning platforms. So far, 121 participants have registered and 16 have obtained their course completion certificate on the eLearning platform. Ensuring ongoing use of eLearning materials requires local institutions to run and update the platforms that host these materials.

In Bangladesh, DGFP organized eight batches of TOTs on basic logistics management for district- and subdistrict-level managers, who will conduct cascade training at the field level for field workers. MTaPS provided technical assistance to develop training materials and facilitate technical sessions. A total of 369 participants (64 female, 305 male) completed the training successfully and started cascade training in selected districts. The cascaded trainings will help other field workers learn how to manage their FP commodities better.

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

MTaPS **Nepal** continues to integrate SPARS into the routine systems of the Nepal government. Following the initial two-week medicine management training implemented by Kathmandu University, MTaPS completed practical training for the first batch of 30 MMSs from 6 pilot districts. Data from the initial SPARS supervisory visits and medicine management assessment were entered in the SPARS database for quality assurance, feedback, and report generation. When fully integrated, the SPARS approach will provide an ongoing, data-driven method for improving facility-level medicine management.

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

MTaPS **Nigeria** supported the introduction of the IPC program in two private health care facilities in Enugu and four public health care facilities in Kebbi States. The inclusion of private sector facilities in IPC work is a recognition of the important role the private sector plays in health service delivery and the

importance of appropriate IPC systems, which are essential for the safe delivery of pharmaceutical services at the facility level.

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

During Q3, MTaPS continued to work with NRAs in Bangladesh, Mali, Nepal, Rwanda, and the Philippines to implement interventions that contribute to increased MLs. MTaPS supported countries in addressing indicators reflected in the WHO GBT and the NRA institutional development and MTaPS priority areas, such as product registration. MTaPS provided technical assistance to Bangladesh DGDA to develop key QMS SOPs and conduct a mock internal audit in preparation for certification and fulfillment of the 14 GBT sub-indicators. MTaPS worked with NRAs in Bangladesh, Mali, and Nepal to streamline product registration by deploying electronic medicine registration systems to improve efficiency. Other interventions involved facilitating public access to registration information in Bangladesh, data entry of product dossier information in PRO-E-MED in Mali, and training of IRIMS users in Rwanda. In Nepal, MTaPS assisted with the development of product registration guidelines for applicants. Furthermore, MTaPS supported the drafting of a medical device registration guideline, situation analysis, and implementation plan, which await consultation with stakeholders.

In addition, MTaPS supported the establishment of an effective regulatory inspection system in Nepal by developing guidelines, inspection tools, an implementation strategy on GPP and GSDP, and a presentation to stakeholders on good regulatory practices. MTaPS assisted DDA in developing inspection tools, such as a self-inspection checklist for GPP and GSDP. It also helped create a conducive working environment for the inspectorate by reorganizing the inspection filing and storage system.

To facilitate regional convergence of medical product regulation with a goal toward harmonization, MTaPS organized a webinar jointly with PQM+ to present the proposed areas for support under Asia Bureau to Asian missions and solicited their support. MTaPS prepared feedback for the questions raised by ASEAN PPWG and awaits endorsement of the three implementation plans before initiating work in ASEAN. Results of the competency mapping exercise in Nepal were presented by MTaPS to DDA, and program support was provided to develop a training plan to address the gaps identified.

MTaPS held a closeout meeting with USAID, IGAD, and PPB to review the achievements and progress made toward harmonization of medicine regulation in the IGAD/EAC region. Opportunities for further work were identified.

BEST PRACTICES/LESSONS LEARNED

- Regulatory system strengthening is process-heavy and requires commitment and cooperation from recipient organizations.
- Phased implementation of interventions to address gaps in product registration helps to produce substantial impact, especially when dealing with limited financial and human resources.
- Establishment of a QMS committee or TWF coupled with top management commitment helps to hasten implementation in specified organizations.
- Using local funding for capacity development activities is a demonstration of the institutionalization of these activities.
- Using available data to analyze competency gaps and identify weaknesses in service delivery provides a basis for targeted need-based investments in capacity development activities.

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

CUMULATIVE PERFORMANCE TO DATE

MTaPS **Bangladesh** performed enhancements to the existing electronic supply management tools for DGFP, i.e., eLMIS, WIMS, and UIMS. Following MTaPS' recommendations, DGFP allocated adequate funds in their OP for maintaining and managing the systems toward sustainability. MTaPS provided technical assistance to DGFP throughout the program period to review and manage the stock status of RH and FP commodities at different levels of the supply chain, resulting in maintaining a stock-out rate at SDPs below 1% during the last two years. DGFP also saved USD 9.6 million by reducing the unnecessary procurement of FP injectable commodities by 20 million units during FY 2021-22. These results were achieved through utilization of data generated from the MTaPS-developed DGFP eLMIS.

MTaPS **Bangladesh** introduced eAMS in all 62 district hospitals across the country. Approximately 50% of the hospitals completed data entry of assets into the system. The entered data will allow for near real-time tracking of assets and their timely maintenance, contributing to more effective procurement.

MTaPS **Bangladesh** successfully established e-TB Manager (over e-Tracker) as the platform to capture individual TB patient information and management, enabling NTP to maintain proper and accurate recording and reporting of quality TB data. The system was rolled out nationally to all 868 sites.

NTP in **Bangladesh** declared paperless reporting of TB data, using e-TB Manager for selected divisions and plans to expand nationwide in a phased manner. This has reduced the workload of end users and made data available in real-time, allowing prompt monitoring and management actions. e-TB manager is interoperable with the Janao app in **Bangladesh** and can capture information of TB patients treated at private centers, thereby increasing the network and data visibility. The system server was transferred from MSH to the Bangladesh MIS on DGHS servers and is managed by local developers. The system has been enhanced for electronic reporting of aDSM in all 10 DR-TB sites, which allows prompt data analysis and actions by DGDA.

In **Nepal**, a new regulatory MIS, **Pharmadex,** is in the process of customization to increase efficiency and data use at DDA. The pharmacy registration module is ready for UAT and implementation. The wholesaler, manufacturer, and product registration modules are being customized. The Pharmadex registration module, developed in line with WHO best practices, will improve DDA registration functions for best dossier review and link to DDA available resources. The Pharmadex registration module will include registration of medical devices and health technology products, which is important for setting up their regulation. A situation analysis was conducted and informs a strategy for a new regulatory requirement for medical devices and health technology products. The strategy was drafted and is ready for discussion with DDA.

MTaPS **Mozambique** and DNF/ANARME, PI achieved key agreements to implement the online version of the regulatory IMS software, Pharmadex, and are working to enhance it to follow the common technical document (CTD) format for evaluation of MA dossiers in the product registration process. The CTD format functionality in Pharmadex is being finalized for review of product dossiers in alignment with DNF requirements. The import module was also finalized and installed on the Amazon web server.

The functionalities for the import and registration modules will improve customer service, reduce time needed to register a medicine, and reduce the backlog of dossiers at DNF.

MTaPS **Rwanda** supported Rwanda FDA in adapting the electronic **PViMS** for spontaneous reporting of ADEs, including COVID-19 vaccine AEFIs, and subsequently for active safety monitoring of DTG-based antiretroviral therapy (ART) regimens. From June 2021 to January 2022, 568 AEFIs, of which 186 were serious ADEs, were reported to Rwanda FDA who then reported them to WHO. Use of PViMS will ensure that medicine safety monitoring reports are quickly received and analyzed by the Authority which can then provide feedback to clients, patients, and HFs in a timely manner. MTaPS **Philippines** supported DOH PD in presenting and aligning with DOH active drug safety monitoring stakeholders such as NTP, Lung Center of the Philippines training team, Philippine Business for Social Progress-Global Fund, and USAID TB. **PViMS** training rolled out to 198 programmatic management of DR-TB facilities in January 2022. The training will help ensure patient safety in DR-TB treatments. MTaPS **Philippines** also supported PD in meeting with KMITS and NTP to align and discuss different scenarios relevant to the interoperability between PViMS and the Integrated Tuberculosis Information System. MTaPS, PD, and NTP trained 758 participants (including 558 females, 185 males) from 201 programmatic-management-of-DR-TB facilities on PViMS and issued 70 user accounts.

MTaPS **Philippines** selected a vendor for a commercial off-the-shelf **eLMIS** and kicked off implementation of the eLMIS with a co-development workshop September 30–October 1, 2021, with DOH, MTaPS, the vendor, and development partners. The 60 workshop participants discussed features of the eLMIS and the implementation approach. A workshop with DOH and eLMIS stakeholders was held November 2021 to validate eLMIS requirements and confirm the system requirement specifications document.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

MTaPS **Bangladesh** assisted in the phased implementation of paperless reporting and started drafting a plan for transitioning to e-TB Manager. MTaPS shared TB activities with the visiting Global Fund team in the presence of USAID and its partners. The information shared included recommendations of the peripheral storage assessment facilitated by MTaPS as well as the transitioning of e-TB Manager. The transition could potentially leverage funds from the Bangladesh Government and the Global Fund for e-TB Manager's long-term sustainability.

In Q3, **Mozambique** MTaPS continued supporting ANARME, PI to finalize entry of incomplete data and data cleaning in PViMS. Preparations for final data analysis were made, including internal capacity building of MTaPS staff on TLD causality assessment through **PViMS**. Capacity building on causality assessment, risk factor analysis, and incidence rate analysis for ANARME PV's core team is planned for Q4.

In **Nepal,** MTaPS finalized and implemented the **Pharmadex** registration module, and UAT of the pharmacy and wholesale registration module was completed. All identified concerns were resolved, including the shift in payment procedure and installation of the secure sockets layer certificate on DDA's primary domain. The DDA assessors' training in pharmacy and wholesale registration was completed and is ready for DDA to notify users and shift registration, renewal, and modification to **Pharmadex**

and is supported by the new help desk. Finalization of modules for manufacturers and product registration is ongoing for UAT next quarter.

In May 2022, MTaPS **Philippines** organized an **eLMIS** UAT. Around 39 participants (25 female, 14 male) from DOH, CHDs, LGUs, and other government agencies were introduced to the end-to-end functionality of the eLMIS system. A total of 300 feedback responses were received from participants. After a comprehensive review of the responses and elimination of duplicates, there was a net total of 255 unique feedback responses. As of Q3, 154 or 60% of the feedback has been addressed. After the UAT, in June 2022, MTaPS, in partnership with Global Fund recipient, Pilipinas Shell Foundation, Inc., supported DOH in conducting a TOT attended by 30 participants from DOH and IPs. TOT participants served as master trainers or facilitators for the June end-users training, organized in partnership with the Global Fund recipient Philippines Business for Social Progress (PBSP). DOH master trainers trained 98 participants from DOH, CHDs, other government agencies, and IPs. During the trainings, MTaPS and DOH SCMS presented to participants the prerequisite activities and checklist to ensure site readiness prior to eLMIS' roll out, which includes conducting a physical inventory count. MTaPS and DOH also visited the CHD warehouses and DOH third-party logistics (3PL) warehouses to assess readiness and determine the strategy on how eLMIS can be implemented in these warehouses.

DOH SCMS, with support from MTaPS **Philippines,** demonstrated eLMIS to the secretary of health.

The **Philippines** DOH PD, with support from MTaPS, developed a monitoring tool for **PViMS**. MTaPS together with PD conducted supportive supervision on using **PViMS** in four PMDT sites in CHD 3. Two out of four PMDT sites have been using PViMS, while the other two sites are still using the paper-based FDA Suspected Adverse Reaction (SAR). The finding prompted PD to reiterate the Department Memorandum 2022-0087 to PMDT facilities, which indicates that PViMS should be used in reporting AEs for patients enrolled in aDSM. Monitoring the proper aDSM data reporting through PViMS will help build the safety profile of DR-TB commodities to improve patient safety.

In Q3, MTaPS **Rwanda** assisted 42 staff of Rwanda DOH receive hands-on training by a software consultant on the management and use of IRIMS. Data migration and discussion on an availing hosting environment are ongoing.

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

In Q3, **Bangladesh** MTaPS assisted NTP in facilitating six batches of training on TB logistics management and eLMIS for TB commodities in Mymensingh Division. Each training workshop was two days in duration. A total of 127 (17 female, 110 male) from the upazila health complexes received the training. It is expected that the eLMIS for TB commodities will ensure end-to-end TB data visibility, including transaction information to enable informed decisions that improve the availability and uninterrupted supply of TB commodities, contributing to the prevention of supply chain stock out, overstock, or expiry/wastage of TB commodities.

During Q3, MTaPS **Mozambique** held a coordination meeting with ANARME about TB and HIV programs and agreed on the dates of a TOT. The TOT will focus on training HCWs and piloting the data collection forms in a selected HF (Mavalane in Maputo City). With MTaPS support, the TOT was conducted in April 2022. It provided participants with the skills, knowledge, and attitudes necessary to help other HCWs conduct active safety monitoring of patients treated with a TPT regimen. The ten

participants (4 female, 6 male) included eight ANARME staff (among them the principal investigator and co-investigators), 1 *Centro de Colaboração em Saúde* (CCS), and 1 Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) staff. **PViMS** will be used by the study site HCW for TPT active safety monitoring data entry. Updating **PViMS** is ongoing and a version upgrade is underway. The new version has added features and enhancements, such as alerts on data quality and a dashboard creation option to monitor key performance indicators.

In the **Philippines**, MTaPS worked with PD for the past three quarters to process and analyze quarterly inventory data of priority DOH health commodities including FP, TB, and HIV/AIDS commodities. MTaPS shared with PD the inventory data analysis presentation template that PD can use to present the processed data to other bureaus. The template has information on the percentages of facilities with zero stocks for each commodity, as well as facilities' reporting rates, average monthly consumption of each commodity, stock on hand, months of stock, expired commodities, and stock for procurement. As a result of the learning session, PD processed the data needed for the January 2022–March 2022 inventory data analysis. MTaPS also supported PD in facilitating the collection of warehouse data to complete more comprehensive data analysis in their regular quarterly report.

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 sub objective.

BEST PRACTICES/LESSONS LEARNED

- In **Bangladesh**, DGFP has taken ownership of capacity-building activities and plans to continue them beyond MTaPS' program life by using their own funds. It kept funding provisions in its OPs for capacity building of front-line workers on basic logistics management. DGFP also adopted MTaPS-developed training materials for cascade training at the field level for front-line workers.
- The use of a PV online data management platform (i.e., **PViMS**) in **Mozambique** made it possible to have patient data entered and synchronized at the facility level so that the data were available to the central level for monitoring and decision making in a timely manner.
- Overcoming very limited DDA staffing in **Nepal** and constant leadership changes requires a high degree of flexibility, productive meetings with clear agendas, detailed implementation plans, and decisions reflected in talk points or minutes.
- Preparatory strategies must be in place, as in the **Philippines**, to mitigate the possible impact of a large-scale event on program implementation, such as a national election. It was critical that MTaPS identified strategies to mitigate leadership changes. The team designated a governance focal person to ensure close monitoring of the situation in the government, especially changes in leadership. Active communication is also vital to ensure that all parties are well-informed of possible changes.
- As **PViMS** is interoperable with **Vigiflow**, PD submitted nine reports generated from PViMS to the Philippines FDA. PViMS can generate E2B files, which is the international standard for sharing AE reports between database systems, such as PViMS and Vigiflow. FDA welcomes this approach as receiving an E2B file helps them be more efficient in performing their regulatory functions. E2B eliminates the need for FDA to encode and validate the completeness of the data reported.
- In **Rwanda**, to facilitate hosting infrastructure procurement for software installation, regular updates of and discussions on progress, administrative bottlenecks, and challenges with the Rwanda

FDA management team and focal persons are required, including clarifications on highly technical software and hosting infrastructure requirements.

- Advocacy to and close engagement and involvement of top management in **Rwanda FDA** to provide guidance and oversight on the implementation of activities is important in the implementation of IRIMS. Rwanda FDA has played a vital role in this activity's success.

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

MTaPS 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

CUMULATIVE PERFORMANCE TO DATE

Ensuring the availability and use of financial resources is critical for enhancing access to essential medicines and strengthening health systems to achieve UHC. Poor allocation and sub-optimal use of existing resources, coupled with high financial barriers, can reduce access to medical products and diagnostics within health systems. Putting sound financing strategies in effect minimizes the incidence of stock-outs and reduces the inefficient use of system resources. This section presents selected MTaPS financing activities to illustrate cumulative performance progress in this objective from the start of the project in Indonesia, Burkina Faso, Benin, Jordan, Asia Bureau, and Cross Bureau. MTaPS finalized the Burkina Faso pharmaceutical expenditure tracking exercise by submitting a pharmaceutical expenditure policy brief in PY4.

The resource created by MTaPS to guide pharmaceutical expenditure tracking recommends an approach that entails the use of both top-down, more detailed data collection from national drug authorities (NDAs) and national importation data sources and a bottom-up approach using subnational sources to obtain pharmaceutical expenditure data. To support increased use of evidence-based medicine strategies and pharmacy benefit programs, in PY2, MTaPS Asia Bureau developed a policy and guideline document, *Practical Guide for Systematic Priority Setting and HTA Introduction in LMICs,* that provides a stepwise approach for HTA implementation. In PY3, to further build the evidence base for defining and costing pharmaceutical benefit packages to inform pharmaceutical policymaking, MTaPS Asia Bureau completed two reports on costing pharmaceutical benefits. The first included a review of existing tools and identified OHT as the most suitable to conduct pharmaceutical benefit package costing. The second provided tailored guidance for country stakeholders to use OHT for pharmaceutical benefits package costing. MTaPS also developed a report reviewing a range of pharmaceutical pricing policies in Asia that can be leveraged to increase affordability and access to pharmaceuticals. MTaPS developed and delivered two training courses for countries in the Asian region on how to use OHT to cost pharmaceutical benefit packages. MTaPS Asia Bureau also published a blog in PY3 highlighting costing pharmaceutical benefit packages to help policymakers set priorities and understand how much public and private payers will spend on medical products under a variety of scenarios.

MTaPS Philippines supported DOH, LGUs, and Philippine Pharmaceutical Procurement, Inc., in introducing FAs and pooled procurement mechanisms for increased efficiency in procurement and availability of health commodities. MTaPS supported DOH to design and pilot a strategic procurement mechanism with demand aggregation, price negotiation, and framework agreements to ensure availability and economy of quality-assured health commodities. Finally, MTaPS successfully conducted a capacity-building course on financing pharmaceutical and medical products targeted at USAID staff globally.

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

MTaPS Indonesia team finalized a literature review and provided recommendations for interventions to improve the HTA topic selection process. The MTaPS team compiled a pharmaceutical expenditure report for around 70% or 1,630 pharma wholesalers in Indonesia.

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

In support of building evidence-based medicines strategies and pharmacy benefit programs in LMICs, PY2 MTaPS hosted an online seminar to launch an HTA roadmap developed by MTAPS for LMICs. The road map has been applied in Indonesia and Ethiopia to increase the capacity of key HTA stakeholders in these countries. The recording of the online seminar has been viewed more than 18,000 times, and the road map has been downloaded over 350 times. To increase MTaPS' literature footprint, the program published a systematic literature review and two reference articles on HTAs in the *Journal of Technology Assessment and Health Care* in PY3.

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

In PY2 and PY3, MTaPS adapted the SHA 2011 framework to conduct an exploratory pharmaceutical expenditure tracking exercise in Burkina Faso using 2018 data to develop a guideline and a global resource on pharmaceutical expenditure tracking that will enable countries to capture population per capita pharmaceutical expenditures per disease or drug therapeutic class more accurately. MTaPS piloted the resource and approaches in Burkina Faso and Benin in PY3. It was piloted in Indonesia in PY4. These pilots enabled MTaPS to better understand the nuanced challenges in accessing pharmaceutical data in different countries and helped MTaPS improve approaches for pharmaceutical expenditure data aggregation and mapping. Based on these experiences from the pilots the Pharmaceutical Expenditure resource is currently being updated for use in LMICs.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

During this quarter, MTaPS Indonesia continued with the implementation of activities linked to improving the HTA topic selection process in Indonesia. MTaPS Indonesia conducted the literature review and documented topic selection recommendations from HTA stakeholders. Survey respondents included stakeholders from MOH, the HTA Committee, universities, and health professional organizations. Methodology also included FGDs and interviews. The recommendations to strengthen the HTA topic selection process were as follows: improve the HTA topic selection process using MCDA; submit HTA proposals digitally through the Pusjak PDK, MOH website; and ensure that processes are published and transparent.

During the quarter, MTaPS carried out capacity building on applying HTA to use of the medicine transtuzumab for early breast cancer. MTaPS provides hands-on learning support to Pusjak PDK, InaHTAC, and researchers for completing HTA using advanced methods of MCDA and real-world experience data (RWD) through collaboration on research proposal design, analysis, and final report.

Following the 9th HTAsiaLink Conference October 11–13, 2021, MTaPS is supporting the formation of an academic writing team comprising MTaPS staff, Pusjak PDK, and the University of Indonesia to co-author publication in academic journals and increase the literature footprint of HTA work in the Asian region, especially Indonesia.

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

Understanding the total and disaggregated expenditures on pharmaceuticals for various sections of the health sector enables informed resource allocation decision making within the health sector. As part of the first pharmaceutical expenditure tracking activity conducted in Indonesia, MTaPS finished compiling a pharmaceutical expenditure dataset of finished medicines distributed in 2021 in Indonesia. It is estimated that around IDR 154 trillion (USD10.2 billion) of medicines have been distributed by wholesalers to several levels of distribution points, ranging from HFs and infrastructure at the Health Office, hospitals, pharmacies, drug stores, clinics, and health centers. In addition, the team compiled generic data into the database through manual identification into each drug distribution license number (NIE) code. Later, the NIE can be classified into the Anatomical Therapeutic Chemical (ATC) code to map the expenditures to identified diseases.

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

During this quarter, MTaPS Jordan, in coordination with MTaPS' partner, Results for Development, reviewed an assessment report on the most relevant aspects of PSM and developed recommendations for potential sustainable vaccine funding mechanisms for MOH and the Government of Jordan.

BEST PRACTICES/LESSONS LEARNED

- New approaches, even if they are best practices, may require time for stakeholders to welcome. In Indonesia, MTaPS presented new methods and approaches to MOH, namely the use of MCDA for HTA topic selection and pharmaceutical expenditure tracking, which required patience to ensure buy-in. It took about five months for buy-in from program implementers and leadership at MOH, InaHTAC, and the National Health Accounts team.
- Adaptation and responsiveness are essential for ensuring continued progress in the face of institutional and priority changes in a country. Several reforms are occurring in Indonesia presently. There is a change in the organizational structure and nomenclature at MOH, one of which is the change of the PPJK institution to Pusjak PDK, where the main organization that is an MTaPS partner has been turned into a policy center for health financing and decentralization. In addition, several changes in the focus of the MOH agenda have led to a request for higher levels of technical assistance from development partners, including MTaPS. In fact, MTaPS has received new requests to develop manuals for HTA topic selection and HTA assessment and to also change capacity-building activities on pharmaceutical expenditure from a one district activity to the national level. With the increasing demand for more technical assistance from MTaPS and the organizational reforms currently going on in Indonesia, a larger technical assistance pool of experts is required from the MTAPS project to rapidly build local capacity in a sustainable manner.

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

CUMULATIVE PERFORMANCE TO DATE

Supply chain policies and strategies provide clear goals and objectives and guide focused interventions to ensure continuous availability of medicines. In PY1, MTaPS **Philippines** helped develop the National PSCM Strategy (2019-2022); in collaboration with MOHFW, MTaPS **Bangladesh** facilitated the development of a strategic plan for coordinated procurement of health commodities. In PY3, with strong leadership from local counterparts, MTaPS **Jordan** helped the government advance efficient vaccine procurement through policy and legal reforms, which enable further institutionalizing of procurement best practices. The reforms will facilitate market entry and increase competitiveness, thus enhancing vaccines availability, which will strengthen the country's immunization programs and safeguard the health of its population. In PY2, MTaPS **Philippines** helped PSCMT incorporate supply chain-related articles into UHC implementing rules and regulations (IRR) which provided legal and policy support for supply chain reforms, future funding, and sustainability at central and LGU levels. MTaPS **Philippines** also facilitated the design of a PSCM roadmap to support UHC implementation. In **Bangladesh**, MTaPS helped inventory management tools become standardized and rolled out so that all HFs under DGHS are recording and reporting stock data uniformly. In the **Philippines**, MTaPS helped finalize the warehouse operation manual (WOM) now used as a SOP at central and regional warehouses.

MTaPS **Philippines** supported DOH in introducing end-to-end eLMIS for greater visibility of PSCM data, enabling more efficient management of the health commodity supply chain, including COVID-19 vaccines. The system is currently undergoing UAT by DOH and LGUs users. Once feedback from UAT is accommodated, the system will be ready for roll out. In **Bangladesh**, MTaPS supported DGFP in utilizing supply chain data generated from the MTaPS-developed eLMIS for decision making. Use of the data helped reduce unnecessary procurement of FP commodities by 20 million units, saving USD 9.6m (FY 2021-22) while maintaining stock-out rates at SDPs below 1%.

In PY3, MTaPS **Bangladesh** facilitated DGDA's scale-up of PV to 30+ government and private HFs by providing training and creating PV sections at the HFs to continue PV actions. In the latest WHO GBT assessment, DGDA achieved the highest score in PV, an MTaPS-supported function. In PY2, the National Bioethics Committee on Health approved the protocol for implementing ASM of the DTG-based TLD regimen. ANARME, PI and the HIV program, with support from MTaPS **Mozambique**, trained HCWs on the protocol and proper data collection. Following the training, nine of the ten selected HFs commenced enrolling HIV/TB co-infected patients on TLD. These patients transitioned from nevirapine-based regimens to TLD as part of the April 2020 cohort. The tenth facility was being used as a COVID-19 treatment center, hence did not enroll patients. In PY3, MTaPS **Mozambique** further supported patient enrollment and follow-up. MTaPS supported quarterly on-site and virtual supervisions by ANARME, PI and the HIV program to the nine study sites to continuously mentor and support site HCPs to implement the protocol, identify challenges, develop action plans, and undertake corrective actions. As of December 2020, about 3,000 patients were enrolled in the cohort. As of March 2022, their unique patient records had been entered into PViMS. MTaPS **Mozambique** supported ANARME, PI in a data cleaning exercise to improve the quality of data collected during follow-up visits of enrolled patients. Patient follow-up visits stood at 8,366 in March 2022, with 95 AEs reported and no severe AEs

reported. During PY4 Q2, MTaPS supported ANARME, PI to physically visit the study sites to advise on how to close the active surveillance activity and to complete and hand over their data forms for final analysis to ANARME, PI at the central level.

In PY3, MTaPS **Mozambique** built on the ongoing support to ANARME, PI and HIV program on active TLD safety surveillance to establish a similar active safety surveillance system to monitor patients using INH and 3HP for TPT. ANARME, PI, and the national HIV and TB programs, with support from MTaPS, developed a study protocol, SOPs, and training materials. The protocol was approved by the National Bioethics Committee on Health and given administrative approval by the minister of health. In **Nepal**, MTaPS has assisted in strengthening PV reporting, in line with WHO's best practices to increase regulatory maturity in PV. In collaboration with DDA, MTaPS drafted PV regulations and guidelines. It also helped DDA define the roles and responsibilities of provincial centers and build their capacity in collaboration with WHO. Safety studies for new molecules were reviewed and the ADE reporting form revised. TOR for hospital DTCs to promote PV reporting were prepared and new DTCs were formed to increase PV awareness and reporting in **Nepal**. In Q1 PY3, MTaPS **Mozambique** worked with ANARME, PI, and TB program to address feedback on the study protocol from CDC Mozambique and US CDC prior to CDC Mozambique's approval on March 31, 2022.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

Ensuring the availability of safe, effective, quality-assured, and affordable medicines and health technologies is critical for effective health outcomes. It also requires sustainable demand planning; efficient and coordinated procurement systems; optimized warehousing, inventory management, and delivery systems; and reliable data for decisions supported by local institutional and individual capacity.

MTaPS **Philippines** has been supporting DOH in developing a PSCM roadmap for UHC implementation, including establishing governance for supply chain reform. DPCB has taken the lead to finalize the administrative order (AO) on governing policy on procurement and supply chain management system design and implementation reforms and expressed that no further MTaPS support is needed after MTaPS-supported DPCB finalizes the draft AO. This quarter, MTaPS supported DOH in standardizing master stock-keeping units (SKUs), a key PSCM roadmap intervention. To finalize the master SKU list, MTaPS validated the commodities data extracted from DOH's Pharmaceutical Management Information System (PMIS) and Integrated Tuberculosis Information System (ITIS) with DOH's Philippine National Formulary to remove duplicates. To date, standardization of the master SKU list is 86% complete (836 SKUs standardized out of 967 SKUs received). The finalized master SKU will be used in DOH's eLMIS product master. Ensuring the master SKU list is complete and utilized appropriately across the system will ensure uniform and standard product profiles across the system, promote end-to-end visibility, track inventory utilization and history.

Last quarter, MTaPS **Bangladesh** facilitated a one-day workshop on procurement process mapping, identifying bottlenecks and root causes as well as recommendations. This quarter, corrective actions were taken by the government, which reduced the workload of the oversight bodies as well as the lead time of the procurement process by 6-10 weeks. These actions were taken in consideration of the roles, responsibilities, and accountability of each entity involved in the procurement process.

MTaPS **Philippines** is currently supporting DOH in finalizing the PSCM and PV Health Workforce Development Plan in line with DOH's devolution transition plan for UHC implementation. MTaPS will finalize and endorse the PSCM and PV workforce development plan to DOH next quarter. MTaPS **Philippines** is also working with DOH to convert the existing modules on PSS, PSCM overview, and warehouse management into a self-paced eLearning format. These courses will be uploaded to the DOH eLearning Academy for wider reach and sustainability. On April 28, 2022, MTaPS **Philippines** organized a consultative workshop on local technical assistance providers (LTAPS) with around 94 participants (22 male, 72 female) from DOH, CHDs, other USAID IPs, and Department of Interior and Local Government. Results of the workshop will be used to improve the design and approach on the development, implementation, and sustainability of LTAPS.

In **Bangladesh**, MTaPS, with MOHFW's DGFP, organized TOTs on FP commodity management; 369 participants (64 female, 305 male) completed the training and began cascading to selected districts. Also, MTaPS organized a UAT on the customized eLMIS for CMSD staff to cover all commodities under DGHS. The UAT will provide a platform for CMSD staff to test the system and provide feedback for better user experience. MTaPS incorporated feedback from the UAT. MTaPS **Philippines** supported POPCOM in developing their WOM and a warehouse inspection tool to assess their five regional warehouses. In June, MTaPS joined one of POPCOM's warehouse visits to provide further technical guidance in the tool's use. MTaPS will continue supporting POPCOM in their allocation and distribution process of FP commodities to LGUs and SDPs. MTaPS **Rwanda** supported the development of a costed multi-year national plan to guide implementation of medical safety monitoring activities.

MTaPS assisted the **IGAD** Secretariat in operationalizing the IGAD EWG-PV by supporting the review and validation of TOR and development of a harmonized IGAD and EWG-PV plan of activities. Additionally, MTaPS, in collaboration with the IGAD Secretariat, identified cross-border area health facility personnel and trained 94 (22 female, 72 male) as TOTs in PV. Subsequently, MTaPS supported the cross-border facilities through CQI and mentorship to implement PV activities. Through this support, MTaPS has ensured that 40 facilities located along cross-border areas of Uganda/Kenya (Amudat/West Pokot, Moroto/Turkana), Ethiopia/Kenya (Moyale), and Kenya/Somali (Mandera) carry out and implement patient safety activities, including reporting of AEs.

SUB-OBJECTIVE 5.2: PATIENT-CENTERED PHARMACEUTICAL CARE IMPROVED

In **Nepal,** MTaPS finalized the development of guidelines, inspection tools, and an implementation strategy on GPP and GSDP, and presented them to stakeholders ahead of approval by the Drug Advisory Committee. Additionally, as part of the development of the GPP and GSDP strategy implementation, MTaPS created e-learning and IEC materials to raise awareness on GPP among entity owners and the public. MTaPS also developed a self-inspection checklist for GPP and GSDP and integrated it into Pharmadex.

SUB-OBJECTIVE 5.3: PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS ASSURED

In **Bangladesh,** MTaPS supported DGDA and other national and international stakeholders in developing final drafts of documents on PV, including GPP guidelines, a PV awareness leaflet, PV newsletters, and procedures for an active and proactive vigilance system, including enforcement mechanisms. Besides this, 508 AE reports were assessed during the quarter with detection of signal from methotrexate causing muscle spasms and muscle cramps. A regulatory recommendation was

issued to change the patient information leaflet to provide clear precautions to patients on the potential side effects. In the last quarter, MTaPS supported the capacity building of more than 700 HCPs from 5 divisions in PV. In addition, DGDA and MTaPS visited the national TB program to oversee aDSM activities. The supervisory visit helped identify existing challenges and possible solutions.

In Q3, MTaPS **Mozambique** supported ANARME, PI, HIV control program, and TB control program in establishing and implementing active safety surveillance of newly introduced HIV and TB medicines. MTaPS continued supporting ANARME to finalize entry of incomplete data into and data cleaning in PViMS with respect to the active safety surveillance of TLD. Preparations for final data analysis were made including internal capacity building of MTaPS staff on TLD causality assessment through PViMS. Regarding the active surveillance of TPT regimens, MTaPS held a coordination meeting with ANARME and TB and HIV programs leading to agreement on the dates of a TOT to train HCWs from the implementing health facilities and to pilot the data collection forms in one HF (Mavalane in Maputo City). After the agreement, MTaPS **Mozambique** facilitated a TOT on April 19-20 on active safety monitoring of patients treated with a TPT regimen. Ten participants (4 female, 6 male) attended.

MTaPS **Nepal** continued to strengthen Nepal's PV system at the national and provincial levels. During this quarter, MTaPS supported DDA with data cleaning of ADR reports and making them ready for entry into Vigiflow. In addition, MTaPS supported DDA in drafting technical documents on PV regulations and guidelines for ADE reporting and the format and SOPs for PV reporting into Vigiflow. These technical documents were shared with regional PV centers for their feedback. MTaPS also started developing IEC materials. When finalized, the IEC materials will increase awareness and knowledge of HCWs on PV.

MTaPS **Rwanda** has continued to support Rwanda FDA and Rwanda Biomedical Center to establish and implement an active safety surveillance system for the newly introduced DTG-based ARV regimens and to further strengthen the existing spontaneous safety reporting system. The active safety surveillance of DTG-based regimens is ongoing. So far, more than 1,432 participants have been enrolled, and only two AEs, i.e., mild skin rashes, have been reported. In its continued effort to strengthen PV capacity in Rwanda, MTaPS conducted training on PV to capacitate 12 members of the National Pharmacovigilance Advisory Committee and seven technical staff of **Rwanda** FDA's PV and safety monitoring division. The training has equipped the participants with the required PV knowledge and skills to play their advisory and technical roles and strengthen decision making based on evidence, as demonstrated by the pre-and post-test results and the many practical and theoretical exercises they were able to actively and successfully carry out during the training.

In Q3, MTaPS focused on closing out its support to **IGAD** and member counties regarding PV. MTaPS, in collaboration with the IGAD Secretariat, convened expert working group meetings on April 7 and 20, 2022, to review and finalize the draft harmonized PV curriculum. MTaPS, in collaboration with the IGAD Secretariat, also convened a closeout meeting with PPB of Kenya as the regional lead country and COE in PV on May 11, 2022. The meeting was attended by USAID and other partners including USP PQM+. During the meeting, activities implemented through the regional support and their impact on the member states were reviewed. MTaPS also held another closeout meeting with USAID on May 19, 2022, to highlight progress and achievements of the IGAD portfolio. The meeting was attended by representatives from USAID, the IGAD Secretariat, PPB of Kenya, and MTaPS.

SUB-OBJECTIVE 5.4: ANTIMICROBIAL RESISTANCE CONTAINMENT SUPPORTED

In the continuing effort to support the appropriate use of medicines in HFs, MTaPS **Rwanda** supported printing the MTC manual and MNCH checklist. In collaboration with the HFDB, MTaPS **Philippines** developed TOT materials on IPC and HCWM and is organizing a TOT with DOH on these materials.

In **Jordan**, MTaPS provided technical assistance to MOH to focus protocol development at the hospital level on surgical prophylaxis and at the PHC level on upper respiratory tract infections and urinary tract infections. Additionally, upon re-establishment of the AMR steering committee this quarter, MOH invited MTaPS to attend their inaugural meeting and review the steering committee's TOR. After receiving official approval from MOH and the Ministry of Education to proceed with the Communication and Awareness Intervention for School Students on AMR, MTaPS began drafting informational material and posters, which will be disseminated at school events next quarter. On IPC, MTaPS collaborated with the head of the IPC Department at MOH to develop a National Policy to Combat Multi-Drug Resistant Organisms and begin planning for its workshop to disseminate the policy to IPC focal points across all sectors.

BEST PRACTICES/LESSONS LEARNED

- Local capacity development, close engagement, and partnership with government counterparts help facilitate MTaPS' interventions and sustainability as demonstrated in **Jordan, Bangladesh, and the Philippines.**
- Continuous and regular high-level technical support to local counterparts, decision makers, and technical staff is critical to ensure the achievement of planned activities, while building the capacity of local leadership and technical staff to address identified issues.
- In **Mozambique**, use of a PV online data management platform (i.e., PViMS) made it possible to have patient data entered and synchronized at the facility level so that data were available to the central level for monitoring and decision making in a timely manner.
- In **Jordan** AMR activities have been delayed because of perceived duplication with other IPs by MOH. Only through continued dialogue and clear communication from MTAPS on the complimentary benefits of MTaPS activities has MOH agreed for MTaPS to continue supporting AMR activities.

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 levels of JEE capacity in MSC-AMR, IPC, and AMS to enhance their ability to effectively implement NAP-AMRs.

CUMULATIVE PERFORMANCE TO DATE

MTaPS has helped the 13 GHSA-supported countries make considerable progress in building capacity in the three mandate areas of MSC-AMR, IPC, and AMS, including development/adoption of evidence-based tools and approaches and transfer of technology and competencies. This section highlights select countries' cumulative progress made on MSC-AMR, IPC, and AMS.

EFFECTIVE MSC-AMR: EXAMPLES FROM TWO COUNTRIES

Since PY1, MTaPS **Bangladesh** has helped organize regular meetings of the AMR Core Working Group and high-level multisectoral review meetings (joint meetings) and has facilitated communication between the NTC, other sectors, and OH initiatives. At one high-level joint meeting in 2019, MTaPS and other stakeholders assessed the NAP-AMR status to identify gaps and priorities. As a result, MTaPS supported the NTC to develop an M&E framework for operationalizing the NAP-AMR and its associated roadmap. Upon development and ratification of the revised National Strategy and Action Plan on AMR (2021–26), MTaPS is helping align the M&E framework with the updated plan.

In **DRC**, MTaPS supported the NC-AMR to strengthen its technical capacity through regular, well-structured meetings. Additionally, during 2020 and 2021, MTaPS and WHO supported the NC-AMR to conduct the annual Tripartite AMR Country Self-Assessment Survey. Working with the NC-AMR, the MTaPS team and other GHSA partners helped establish three thematic TWGs to address issues around detection and surveillance, IPC, and AMS and to report back to the larger NC-AMR. MTaPS then worked with WHO, FAO, and IPs to review the TWG action plans, facilitate activities, and regularly report to the NC-AMR. More recently, MTaPS supported the NC-AMR to develop an operational plan for the 2018–22 NAP-AMR and an M&E framework to monitor implementation status.

IPC IMPROVED AND FUNCTIONAL: EXAMPLES FROM TWO COUNTRIES

MTaPS **Kenya** worked with the National Nurses Association of Kenya (NNAK) and other health professional associations to design and roll out an IPC CPD course used to train over 3,000 professional association members. The training awarded many of the participants CPD credits through their respective regulatory bodies. Building on this, MTaPS and NNAK uploaded the course to an e-Learning platform, which will help standardize the quality of the training. It will also promote sustainability by charging trainees small fees that will go toward maintaining the course.

Over the past two years, MTaPS **Senegal** has worked with DQSHH to revitalize the ICCs in three pilot hospitals by helping them develop and implement action plans. The lessons learned from this experience were used to support five more ICCs to jump-start their action plans with the goal of revitalizing ICCs at hospitals nationwide, as per the DQSHH's national IPC policy. During FY21, MTaPS worked with DQSHH to update its national IPC guidelines and supervision checklist, which was later used during joint supervision visits at the three pilot hospitals.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED: EXAMPLES FROM TWO COUNTRIES

MTaPS **Tanzania** has worked with the MOH to develop and disseminate key governance and guidance documents. These documents include MTC guidelines; STGs and an NEML with the WHO AWaRe categories of antibiotics; and, with additional feedback from MALF, the Tanzania Policy Guidelines for Implementing Antimicrobial Stewardship and a multisectoral AMR communication strategy.

In PY1 and PY2, MTaPS **Uganda** supported NDA to develop a framework to measure antibiotic importation and is now working with NDA to develop a framework to measure national-level antibiotic consumption. MTaPS also helped 14 hospitals develop and implement AMS CQI plans to establish them as COEs, which included training over 500 HCWs (55% female, 45% male). COEs have begun conducting peer-to-peer learning for HCWs from other facilities. MTaPS also supported MAAIF to develop and disseminate an EVML and guidelines on antibiotic use and IPC in the animal health sector.

QUARTER 3 ACHIEVEMENTS AND RESULTS

EFFECTIVE MSC-AMR

Strengthening MSC governance structures and functions: To strengthen the capacity of the MSC-AMR TWG and align it more closely with other TWGs under the OHP, the MTaPS **Côte d'Ivoire** team supported the AMR secretariat to reduce the size of the MSC-AMR TWG, resulting in the dismantling of the separate OHP TS and making its former head the MSC-TWG focal point. To ensure the sustainability of the Information Exchange Platform developed by MTaPS **Uganda** in past quarters, MTaPS supported the National AMR Sub-Committee in selecting Makerere University's Infectious Diseases Institute to host and update the platform moving forward.

Holding multisectoral meetings or activities: During this quarter, MTaPS supported routine MSC meetings in **Côte d'Ivoire, DRC, Ethiopia, Kenya, Mali, Nigeria,** and **Tanzania**. In June, MTaPS **Mozambique** supported the MCC secretariat to organize a three-day workshop with participants from the human health, animal health, and environmental sectors to validate the MCC secretariat and TWG TOR and develop a reporting process for these bodies, update the stakeholder mapping, and assess the implementation of the AMR-NAP. Similarly, in **Burkina Faso**, MTaPS collaborated with the TS-OHP and the AMR-TTC to conduct a three-day workshop with government stakeholders to validate the members of the AMR-TTC and its five subcommittees and to develop the subcommittees' action plans. On June 15, MTaPS **Ethiopia** supported the MOH and Ethiopian Pharmaceutical Association to celebrate the 10th AMR day, which provided a forum for stakeholders to share ideas and build buy-in, as well as to communicate AMR messages with the media outlets in attendance.

Drafting or updating multisectoral policies, plans, or guidelines: At an MTaPS **Nigeria**–supported AMS-TWG meeting attended by stakeholders from the animal health, human health, and environment sectors, participants finalized and ratified the national AMS strategic plan.

IPC Improved and Functional

Strengthening facility IPC governance structures and functions: MTaPS assisted the MOH in **Ethiopia** to finalize the National IPC Facility-Level Assessment Tool, which will be used by HFs to assess IPC practices to ensure they align with WHO guidelines. IPC activities began in six newly added facilities (two private, four public) with support from MTaPS **Nigeria**, including a baseline assessment using the IPCAF. With DQSHH, MTaPS **Senegal** revitalized ICCs in five additional HF, beginning with an IPC baseline assessment using the WHO IPCAF tool. In celebration of World Hand Hygiene Day, MTaPS **Cameroon** supported events at two HFs, which included facility HH audits using the WHO HH compliance observation forms by facility IPC champions, and a session using WHO material on HH for patients. In **DRC**, MTaPS collaborated with the MOH to conduct IPC assessments at the national level using IPCAT2, and within animal care facilities, using an adapted IPCAF.

Developing and implementing IPC policy and guidance documents: MTaPS **Uganda** assisted MAAIF to draft a situational analysis report and national IPC plan for the agricultural sector ahead of a stakeholder consultation planned for Q4. MTaPS **Kenya** supported the revision and development of key IPC documents, including the revision of the national IPC 2015 guidelines and development of the MOH Patient and Health Care Worker Safety division system indicators.

Developing individual and local training capacities: MTaPS supported supervision visits on IPC to facilities in **Cameroon**, **Mali,** and **Tanzania**. In **Bangladesh**, MTaPS supported CDC Bangladesh's DGHS to facilitate an IPC training by developing and capacitating a pool of master trainers, who then led trainings for 114 (47 female, 67 male) hospital IPC staff. Similarly, in **Côte d'Ivoire,** MTaPS collaborated with AMR-TWG to conduct IPC training in 8 hospitals. At each hospital, 2 regional-level IPC trainers and 1 central-level IPC master trainer facilitated the training for 128 (52 female, 76 male) HCPs. MTaPS **Ethiopia** supported a TOT for 28 (4 female, 24 male) HCPs, drafting of an IPC training manual for health centers, and finalization of a package of IPC training materials. In **Tanzania**, MTaPS helped develop IPC M&E training materials on accurately uploading IPC data to national tracking tools. The team also launched the Extension for Community Healthcare Outcomes (ECHO) platform for IPC and AMS mentorship in April and had monthly IPC and AMS sessions on ECHO for HCPs.

Use of Antimicrobial Medicines Optimized

Developing and implementing AMS policies, plans, and guidance documents, including AWaRe classification: Working closely with DGSV, MTaPS **Burkina Faso** organized a three-day workshop where 17 (3 female, 14 male) participants from various veterinary and animal health bodies updated the guidelines for the use of antimicrobials in the animal sector and drafted a ministerial order regulating the use of antibiotics in the animal sector. At another workshop series organized by the National Drug Regulatory Agency with support from the MTaPS **Burkina Faso** team, participants updated the national therapeutic formulary to align it with the 2020 NEML. To ensure alignment with the WHO 2021 AWaRe categorization principles, MTaPS **Ethiopia** collaborated with the MOH's PMED to organize a workshop to review the AWaRe categorization in the revised STG for general hospitals developed with MTaPS support in FY20. The review found no significant deviation from the 2021 principles and was thus recommended for continued dissemination. MTaPS **Nigeria** supported the development of the first OH National AMS plan and transitioned it to AMR-TWG for finalization. In **Uganda**, MTaPS is collaborating with NDA and MOH to develop a tool for routine collection of AMC at the national level, as well as a manual for national-level measurement and monitoring of antimicrobials. After official endorsement of

the antibiotic treatment policy and STGs in **Senegal**, MTaPS helped NCAT organize a meeting where participants agreed to set up three TWGs, plan the dissemination of and training on the STGs, and plan a baseline assessment of antibiotic practices in HFs.

Assessing AMS capacity at the national and local levels and developing action plans: In **Bangladesh**, MTaPS used a customized version of the WHO practical toolkit to assess AMS policies, practices, and regulations in human and animal health sectors. The assessment results will help guide the development of an action plan by MOHFW for AMS interventions. Using the WHO AMS assessment tool, MTaPS **Tanzania** conducted the first AMS assessments in 10 supported facilities. Based on the results, MTaPS provided technical support on AMS activities to each of the HFs and their MTCs.

Strengthening individual and local capacity: With AMR-TWG, MTaPS **Côte d'Ivoire** trained 18 (18 male) master trainers on AMS and routine DTC activities, who then cascaded the training to 183 HCWs (45 females, 138 males) of whom 123 were DTC members, at 9 HFs. Their efforts led to the drafting of improvement plans using the challenge model by each of the facilities' DTCs. In collaboration with the MOH Direction Générale de l'Organisation et de Gestion des Services et des Soins de Santé (DGOGSS) and DPM, MTaPS **DRC** established one DTC, including training 33 (13 female and 20 male) DTC members and helping them develop an action plan. To help develop COEs for AMS, MTaPS **Kenya** provided onsite mentorship to HCPs during supervision visits at 16 hospitals and 2 community pharmacies. MTaPS **Mali** helped DPM and ANEH to organize and conduct supportive supervision visits to DTCs at 10 MTaPS-supported facilities. At two newly added private facilities, MTaPS **Nigeria**, with AMR-TWG, conducted a baseline assessment of their AMS programs using a WHO checklist and trained 23 HCPs, who then set up facility AMS teams and developed work plans. To build early interest in AMR, MTaPS **Uganda** engaged students at six graduate health training intuitions to set up AMR interest groups to coordinate AMR activities for other students.

BEST PRACTICES/LESSONS LEARNED

- Interest in and cooperation on GHSA-related activities at private HFs in Bangladesh demonstrate that both the government and the private sector can strategically and effectively be engaged to support activities aimed at improving AMS programs.
- In Cameroon, MTaPS found that mentoring and field supervision is key to ensuring the functionality of HFs' IPC committees.
- MTaPS Kenya has learned that in-service AMS CPD trainings are key to both building sustainability and promoting gender equity and inclusiveness.
- MTaPS Mali found that reinforcing the achievements of newly established IPC committees and DTCs is important to maintain their functionality, especially when the health system is strained by insufficient staffing and high turnover.
- MTaPS Nigeria learned that training programs developed for the public sector need to be adapted to fit the needs of the private sector to be effective.
- The presence of existing protocol for surveillance of HCAI has made the implementation of SSI much more acceptable to HCPs in Tanzania.
- MTaPS Uganda identified that building interest in and engaging health professional students on practical public health and OH aspects of AMR are part of an effective strategy to cultivate early buy-in and competency among future health workforce members.

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 (KN), Mali (ML), Mozambique (MZ), Nigeria (NG), Senegal (SN), Tanzania (TZ), Uganda (UG)

	ACTIVITY AND DESCRIPTION
Global	■ Further revise the Global Health e-Learning AMR (Part 2) course after receiving USAID feedback ■ Present a panel on July 1 at the Global Health Security Conference 2022
MSC	■ Finalize the operational plan for the NAP-AMR (BD) ■ Continue facilitating meetings of MSC-AMR bodies and/or their TWGs (BF, CDI, DRC, ET, ML, KN, TZ, UG) ■ Review and update the NAP-AMR (CM, ML) ■ Conduct stakeholder workshops to develop an education policy brief highlighting the need to incorporate AMR into the national training curriculum (UG)
IPC	■ Collaborate with national stakeholders to conduct IPC trainings at supported HFs (BD, CDI, NG) and through professional associations (KN) ■ Finalize and disseminate IPC and AMS assessment report (BD) ■ Help conduct supportive supervision visits to supported facilities (CDI, KN, NG) ■ Support the monitoring of HCAIs (CM) and SSIs (TZ) at the facility level ■ Support the development of IPC governance documents (ML) ■ Support initial and/or repeat IPC assessments at the facility level (CDI, NG, SN)
AMS	■ Disseminate STG app (BD) and printed STGs (BF, ET) ■ Help develop training materials and conduct trainings for DTC members at MTaPS supported facilities (BF, CDI) ■ Technically support categorization/dissemination of antibiotics according to WHO AWaRe classification (CDI, CM, DRC, NG) ■ Conduct AMS trainings at supported facilities (CDI, ET, SN) ■ Conduct online CPD session with professional associations and support the embedding of the pre-service AMS curriculum in learning institutions (KN) ■ Help conduct supportive supervision visits at supported facilities (KN) ■ Facilitate establishing the national AMR student charter (UG) ■ Help develop manual for monitoring and measuring antimicrobial use at national level (UG)

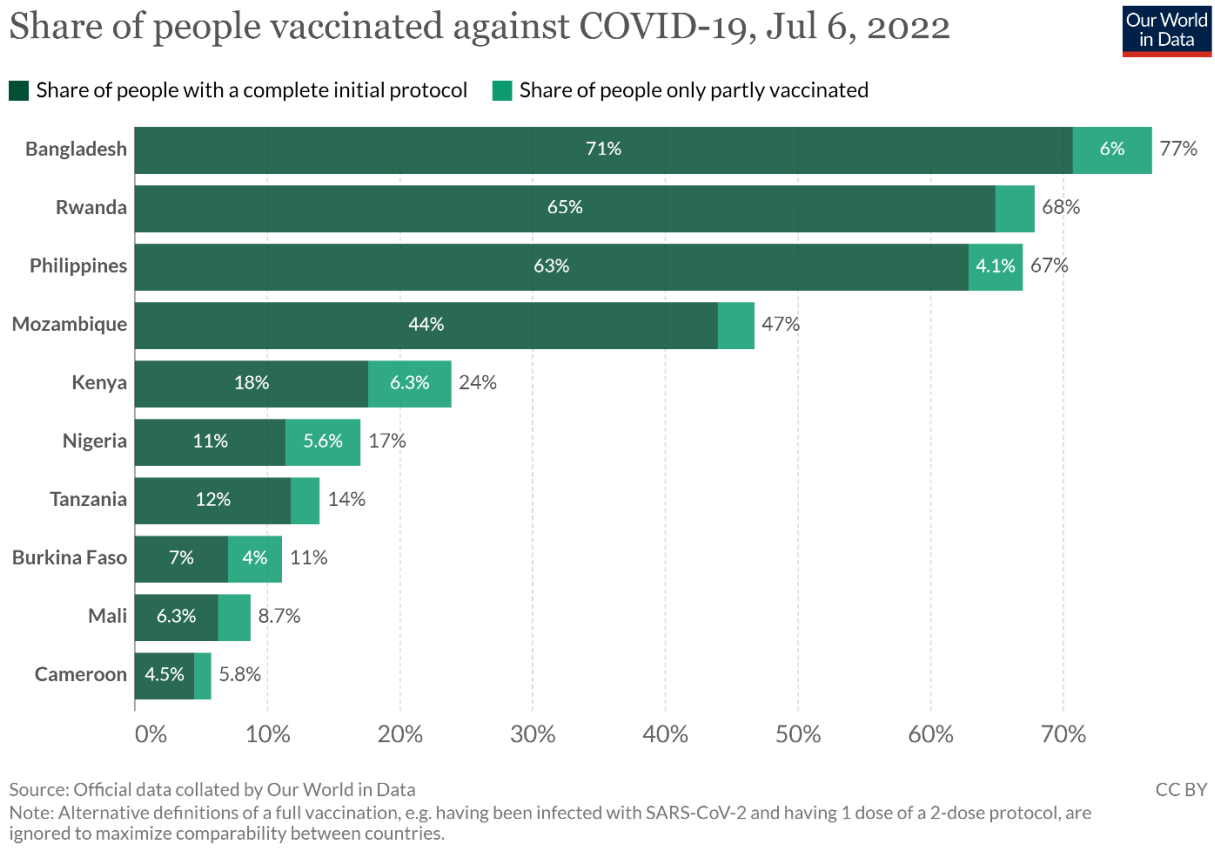
B. COVID-19

COVID-19 RESPONSE AND VACCINE INTRODUCTION: QUARTER PROGRESS FOR FY22Q3

In Q3 FY22, MTaPS supported the governments in 12 countries to strengthen the response to COVID-19 threats, and plan, deploy, administer, and monitor the safety of COVID-19 vaccines. COVID-19 remains a public threat in all 12 countries, which requires continuous efforts for maintaining quality and safety of health services through better IPC, and uninterrupted supply of IPC and COVID-related products. Vaccines against COVID-19 are now available in all 12 countries, but the rate of uptake and equitable access remains a challenge in some. The share of people vaccinated with at least one dose in the MTaPS-supported countries ranges from 78% in Bangladesh and 69% in Rwanda to just 5.7% in Cameroon and 8.4% in Mali. Careful vaccination planning, reaching out to vulnerable and remote populations, active promotion of vaccine safety monitoring and evidence-based information, and engaging private-sector providers are among the tasks performed by MTaPS.

COVID-19 funded countries:

Bangladesh
Burkina Faso
Cameroon
Côte d'Ivoire
Kenya
Mali
Mozambique
Nigeria
Philippines
Rwanda
Senegal
Tanzania



Source: Official data collated by Our World in Data
Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

In Q3, MTaPS was actively supporting governments and national stakeholders with dedicated funding (CN108, CN164, and most recently CN18 and CN31 funding streams) through the American Rescue Plan Act (ARPA). MTaPS also received funding and conducted initial consultations and planning with the

governments and IPs to support COVID-19 vaccine manufacturing in Kenya and Rwanda, and for broad engagement of private-sector providers (pharmacies and clinics) in vaccination efforts in Nigeria.

MTaPS COVID-19 activities are fully aligned with the objectives and results areas of the *USAID Implementation Plan for the US COVID-19 Global Response and Recovery Framework*, published in October 2021. MTaPS COVID-19 interventions support two USAID objectives across seven total result areas.

USAID Objective 1: Accelerate widespread and equitable access to and delivery of safe and effective COVID-19 vaccinations

- Result Area 1.3: Human Resources for Health
- Result Area 1.4: Service Delivery
- Result Area 1.5: PV and Safety Monitoring

USAID Objective 2: Reduce morbidity and mortality from COVID-19, mitigate transmission, and strengthen health systems, including to prevent, detect, and respond to pandemic threats

- Result Area 2.1: Risk Communication and Community Engagement
- Result Area 2.4: IPC
- Result Area 2.5: Case Management
- Result Area 2.6: Coordination and Operations

For more information about MTaPS' COVID-19 activities, click here.[1]

Table 1. MTaPS COVID-19 Q3 FY22 indicators (detailed breakdown can be found in annex 3)

Indicator and Disaggregation		Q3 FY22	Total from June 2020
Objective 1. Accelerate widespread and equitable access to and delivery of safe and effective COVID-19 vaccinations			
0.2 (CV.1.5-9) Number of AEFI reports reviewed with MTaPS' support among those submitted to country monitoring systems			
	# of AEFI reports reviewed with MTaPS' support	1,090	6,125
0.3 (CV.1.3-3) Number of staff and volunteers trained on COVID-19 vaccine-related topics with MTaPS' support			
	# of people trained	1670,518	4,099
Sex	Male	316765	2,377
	Female	354753	1,722
	Unknown sex	0	0
0.7 Number of tools for planning and conducting safety monitoring developed, adapted, or disseminated with MTaPS' support			
	Establishing surveillance systems	1	2
	Monitoring and responding to AEFI	0	6
	Monitoring and responding to adverse events of special interest	0	2
	Safety data management systems	0	1

[1] Note that the numbers will match the website once updated in July 2022.

	COVID-19 vaccine safety communication	0	11
0.8 Number of COVID-19 vaccine multisectoral coordination mechanisms that meet regularly (at least once a month) with MTaPS' support			
	# of multisectoral coordination mechanisms	1	32
C.1 Number of countries that developed or adapted COVID-19 vaccine microplans with MTaPS' support			
	# of countries with developed/adapted microplans		4
C.2 Number of countries that have improved the regulatory and/or policy environment for COVID-19 vaccines with MTaPS' support			
	# of countries with improved regulatory environment		3
C.3 Number of countries that have plans for vaccine distribution to the subnational level developed, adapted, or disseminated with MTaPS' support			
	# of countries with distribution plans to subnational level		2
C.4 The country has vaccine tracking systems developed or adapted to track COVID-19 vaccines with USAID support			
	# of countries with vaccine tracking system		0
Objective 2. Reduce morbidity and mortality from COVID-19, mitigate transmission, and strengthen health systems, including to prevent, detect, and respond to pandemic threats			
Result Area 4. IPC			
4.1 (CV.2-4-17) Number of HFs where MTaPS provided support for IPC and/or WASH for COVID-19			
	# of health facilities	470	5,252
4.2 (CV.2.4-18) Number of workers who received COVID-19-related training in IPC and/or WASH with MTaPS' support			
	# of people trained	570	44,858
Sex	Male	345	19,598
	Female	225	25,039
	Unknown sex	0	221
Result Area 6. Coordination and Operations			
(CV.2.6-22) Number of policies, protocols, standards, and guidelines across any of the result areas developed or adapted with MTaPS' support			
	# of policies, protocols, standards, and guidelines	7	66

COVID-19 COSTING

OVERVIEW

There is limited data currently on the actual costs of delivering COVID-19 vaccines in LMICs. 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 existing resources, such as tools and guidance developed by WHO and its partners, that can be helpful in generating estimates of COVID-19 vaccine delivery costs.

COVID-19 vaccination rates remain very low in many LMICs.[2] Delivering COVID-19 vaccines will require additional global funding commitments. Cost estimates remain broad, with limited data available on COVID-19 vaccine–specific delivery. Cost estimates vary, and decision-makers need to project the costs of rolling out the vaccines more accurately.

The work conducted by the COVAX Working Group on vaccine delivery costs in Feb 2021 produced a single estimate—$1.41 per dose. Importantly, the COVAX Working Group also limited its early cost estimates work to 20% coverage of the population—although 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. 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, but targeted data collection efforts are necessary to refine these estimates and ensure that they remain grounded in the realities faced in LMICs.

Modeled estimates at the global level indicate that the delivery cost of COVID-19 vaccines in LMIC settings could be several times greater than for routine childhood vaccines ($1.66 per dose in COVAX Advance Market Commitment (AMC) countries compared with $1.45–1.50 per dose for routine childhood vaccines in low- and lower middle–income countries).[3] Note that this estimate assumes that the existing health systems will be leveraged, and the cost of health worker salaries are excluded.

CUMULATIVE PERFORMANCE TO DATE

In 2021, MTaPS assessed the available modeling tools and determined that the Harvard/COVAX model had the granularity and features that can be fit for purpose. MTaPS conducted a model adaptation and developed a scenario builder on the various cost estimates of delivering COVID-19 vaccines under different assumptions. The scenario builder was developed in October 2021, and it was updated periodically in December 2021, January 2022, and March 2022 with new data on global vaccinations.

Further, MTaPS conducted due diligence in gathering more detailed vaccine delivery expenditure data in two countries, Malawi and Madagascar. Selection of the countries was informed by discussion with USAID and considerations around USAID priority countries, ongoing work by other development partners, technical and operational feasibility, a country's current level of vaccination, the geographic region, and existing access to the MOHs.

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

[3] Griffiths U, Adjagba A, Attaran M, et al., Costs of delivering COVID-19 vaccine in 92 AMC countries, Updated estimates from COVAX Working Group on delivery costs, UNICEF, WHO, Gavi, BMGF, Harvard University, ThinkWell, World Bank, 26th February 2021.

The program adopts a bottom-up approach to complement existing top-down cost estimates. In 2021, 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, and ThinkWell's COVID-19 Vaccine Delivery Costing protocol.[4,5] Health experts contracted in each country gathered expenditure data through surveys and interviews in the national office, supplemented with secondary data collection from 10 to 20 HFs. MTaPS also collected existing cost data from these countries and adapted it to cost their defined deployment strategies.

Global estimates require assumptions, which in turn benefit from in-country intelligence. As such, MTaPS conducted an online survey of health experts working in each of the program's countries to gather real-time COVID-19 vaccine delivery data. The collected information included human resources, types of delivery sites/methods, availability of supplies, cold chain capacity, and implementation of demand generation campaigns. The survey, completed in November 2021, and conducted again for May 2022, helped to identify evolving trends in vaccine delivery at the country level.

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

Lastly, with the countries and donors' increasing interest in COVID-19 vaccination costs, MTaPS supported ad-hoc requests as outlined in the work plan. MTaPS conducted an assessment of the CARE studies on the cost of COVID-19, conducted a comparative assessment with ACT-A studies, and led two large presentations with major stakeholders at the USAID-UNICEF–led Funders Forum and for the USAID COVID-19 Task Force's leadership.

QUARTER 3 ACHIEVEMENTS AND RESULTS

MTaPS produced new cost estimates for COVID-19 vaccine global delivery in May and June 2022. These estimates included a previous major adaptation to the model that expands the delivery modality from only fixed sites and outreach to include campaigns and last-mile delivery. MTaPS presented this work at the Funders Forum and to the USAID COVID-19 Task Force. MTaPS is also now formally a part of the COVID-19 Vaccine Delivery Partnership (COVDP) working group on costing and financing and will contribute toward developing a single set of cost estimates for various global stakeholders.

MTaPS sent out a second global online survey of health experts working in our program countries to gather real-time COVID-19 vaccine delivery data, including human resources, types of delivery sites/methods, availability of supplies, cold chain capacity, and implementation of demand generation campaigns. The survey launched on April 25 and closed on May 13. Participants from MSH and UNICEF offices in 21 LMICs participated. The main objectives were to explore country experiences with the vaccine rollout since the previous survey in November 2021 and to support USAID and the COVDP working group (WG) to refine the delivery cost estimates.

[4] 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.

[5] 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

On country-level cost data, MTaPS analyzed the landscape of costing work and received approval for commencement of the vaccine expenditure study in Malawi and Madagascar. MTaPS had previously received Institutional Review Board (IRB) approval (non-human subject determination) for the study from MSH's Scientific Committee and has taken the necessary steps to receive IRB approval in-country. Study protocol and data collection forms were also completed. MTaPS submitted IRB approval to the National Health Sciences Research Committee (NHSRC) of Malawi after successfully receiving approval at the district level. A team of experts is ready to start data collection in the Mangochi, Mwanza, Mzimba South and Lilongwe districts as soon as NHSRC approval is received. In Madagascar, the research protocol was submitted to the National Biomedical Research Ethics Committee in Madagascar (CERBM). While awaiting approval, the team is gathering off-the-shelf data from the USAID Accessible Continuum of Care and Essential Services Sustained Program (ACCESS), as the program has actively participated in the vaccination strategy in Madagascar. An extension request for the activity was submitted in late June to USAID to ensure there is enough time to collect and analyze data at the country level.

BEST PRACTICES/LESSONS LEARNED

- The various estimates of COVID-19 vaccination delivery cost causes confusion in the policy space, even if the estimates are internally consistent from a modeling and technical standpoint. To help bring greater clarity on vaccine delivery cost, MTaPS has widely shared its work, e.g., through presentations, to disseminate our findings. Also, the program will be working closely with COVDP to streamline this work with other global partners.
- Data on the cost of COVID-19 vaccination delivery is scarce. MTaPS' efforts to capture new information through desk review and global surveys have proven to be helpful not only for our internal estimation work, but also for external stakeholders.
- Data collection during the COVID-19 pandemic has proven to be more challenging. Staff are overburdened with the additional workload, travel to the countries was initially not possible due to public health precautions, and receiving research approval has been more difficult. There are additional requirements from research committees and the process has proven to be more complex. This experience is in line with the delays and complications partners are experiencing.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Collect country-level secondary data and estimate the costs of delivering COVID-19 vaccines in LMICs	July–September 2022
Develop a global estimate with COVDP	August 2022

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 MNCH mortality by strengthening pharmaceutical systems.

CUMULATIVE PERFORMANCE TO DATE

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. This section presents cumulative performance progress on the MTaPS MNCH portfolio.

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. This discussion paper provides lessons learned from social accountability research and interventions that engage civil society in improving access to and appropriate use of quality MNCH medical products and services and highlights the importance of understanding the accountability ecosystem and building linkages between levels and with civil society to facilitate effective advocacy for systemic change.

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, MTaPS has been supporting Mozambique's regulatory authority, DNF, in streamlining registration of MNCH medicines by using findings and recommendations from the mapping. During quarter Q1 of PY4, MTaPS held a virtual training on the assessment of bioequivalence studies as part of evaluating MNCH generic medicine dossiers in Mozambique with 13 participants from DNF. On a regional level, in Q2, MTaPS held a knowledge exchange with regulators from SADC member states and selected manufacturers of MNCH medicines on optimization and prioritization of MNCH medical product registration. Pragmatic solutions were proposed by both regulators and manufacturers and will be the focus of MTaPS' follow-on support to SADC in PY4.

In PY2, MTaPS completed a mapping of partner support in the respiratory ecosystem to strengthen systems to ensure appropriate oxygen administration. It was observed that regulation and quality assurance of medical devices and medical gases receives little support from IPs. MTaPS also noted discrepancies in technical packages of medical devices and their technical specifications for the

respiratory ecosystem from different global guidance documents, which is being addressed through the WHO Priority Medical Devices Information System (MeDevIS).

Medical devices, just like any other medical product, require strong regulatory systems—as part of larger pharmaceutical systems—to ensure their quality, safety, and efficacy. Medical devices for use in MNCH are considered essential commodities and are mostly procured by national governments for public-sector use, which highlights the important role of national regulators in ensuring their quality, safety, and efficacy. MTaPS is working with AMDF to develop a document to focus on specific considerations for regulating MNCH medical devices.

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

Sub-objective 3.1 Pharmaceutical Systems Strengthening Global Learning Agenda advanced for women's, newborn's, and children's health

In PY1, MTaPS seconded a pharmaceutical advisor to GFF, who developed resources for GFF country focal points and country teams on management of medicines and supplies, including a flyer highlighting the variety of interventions for managing medicines and supplies prioritized in most GFF investment cases presented at the Reproductive Health Supplies Coalition General Meeting in Nepal in March 2019 and shared with the Inter Agency Supply Chain group. Webinars were conducted for GFF countries to stimulate thinking in country teams of the importance of a robust pharmaceutical system to support MNCH interventions and to consider it among the priorities of an investment case.

A package of draft documents for WB task team leaders who approve WB procurements on quality in procurement of pharmaceuticals was shared with the WB pharmaceutical team. 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. The FA would be a means to ensure availability of quality medicines in counties implementing PBF.

The advisor's secondment served to raise the profile of management of medicines in GFF-supported countries. To date, a section on management of medicines is included in the GFF annual report.

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 strengthening the pharmaceutical system 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 PSS101 e learning course.

Recognizing that most MNCH medicines are essential medicines and are procured by national governments, sufficient measures must be in place to ensure their quality. This is particularly true in decentralized settings where procurement responsibility is also decentralized, yet capacity for ensuring quality for local procurement may be limited. If heat-sensitive oxytocin, for example, is procured locally, its quality needs to be guaranteed at the point of procurement and throughout the chain. 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 those products procured. Building on this work, during the last part of PY3, MTaPS conducted a detailed mapping of subnational procurement in four provinces of Nepal, a country which recently decentralized. In Q2 PY4, MTaPS held

a two-day workshop on subnational procurement of MNCH medicines in Nepal, presenting the mapping's findings, key issues, and suggested recommendations. Stakeholders agreed on next steps to address the issues.

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 women's, newborn's, and children's health 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 quantification of RMNCH medical products directly affects product availability and the potential to save lives. With partners' support, MTaPS revised the document to align with current WHO recommendations and validated the guide in five countries in collaboration with USAID GHSC-PSM.

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

Amoxicillin is the first-line treatment for pneumonia in children under 5 and is also used for treating possible serious bacterial infections in newborns, together with gentamicin. The preferred formulation is dispersible tablets, which need some explanation for caregivers to know how to administer them correctly. In PY1, MTAPS updated a set of job aids and dispensing envelopes to promote adherence to correct treatment by HCPs and caregivers. During PY2 and 3, MTaPS worked with UNICEF, USAID, GHSC-PSM, and PQM+ to prepare a series of consultative meetings to address access bottlenecks and appropriate use of amoxicillin and gentamicin, which was held this quarter.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

Year 2, Activity 2.1.1: Support the streamlining of registration of MNCH medical products in at least one country

In Mozambique, a workshop on enhancing registration procedures, including prioritization of MNCH medicines and quality issues of oxytocin, was held on April 21. About 70 representatives from manufacturers, importers, and distributors attended the session, which was moderated by 11 members of ANARME. Themes covered included procedures for registering medical products and post-registration procedures; the importance of registration for access to MNCH medicines; and regulatory guidance for oxytocin MA. The workshop gave applicants an opportunity to ask questions and raise challenges. Recognizing the importance of the dialogue with applicants, ANARME proposed a future meeting focusing on PV. ANARME also committed to conducting a survey of applicants to gather feedback and determine actions to improve the service. Workshop discussions and the survey feedback will inform the revision of the registration guidelines planned for later this year.

MTaPS also shared the report of the SADC knowledge exchange with regulators from 12 of the 16 SADC member states for review by the SADC project coordinator. The report will help NMRAs advocate for changes such as prioritization of MNCH medicines and updating NMRA websites. It will also aid ZAZIBONA in developing resources to support countries in prioritizing MNCH medicine registration and to utilize the joint assessment approach for MNCH medicines.

Year 3, Activity 2.1.1: Improve regulation of MNCH medical devices at regional level

MTaPS requested further input on the updated draft of the considerations for regulating MNCH medical devices. MTaPS plans to share the document with global medical device experts, such as MDRC, NEST, and WHO, for review prior to sharing with the AMDF leadership team. Discussions are ongoing with the consultant on the next phase of capacity building and planning for the joint assessment.

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

Year 2, Activity 3.1.1: Support implementation of promising procurement practices to improve access to safe, effective, affordable, and quality-assured medical products for women and children

The mapping report and report on the two-day workshop on subnational procurement of MNCH medicines in Nepal are being finalized. MTaPS has been supporting DDA and DOHS' Management Division to consider how recommended next steps from the workshop can be incorporated into annual plans and budgets, particularly implementation of a framework contract, capacity building in procurement, and strengthening of supply chain management and eLMIS. MTaPS also wrote a success story on the workshop and is developing a brief with recommendations useful for advocacy.

Year 2, Activity 3.3.1: Map the institutionalization of pediatric amoxicillin formulation in countries

In Q3, MTaPS collaborated with GHSC-PSM and PQM+ to finalize preparation of evidence from literature reviews and partners' contributions of the bottlenecks to access and appropriate use of amoxicillin and gentamicin and on interventions to be presented in a series of consultative meetings. These presentations were shared for review prior to the meetings, with WHO, UNICEF, USAID, R4D, CHAI, and PATH. The consultative meetings on improving access to and appropriate use of pediatric amoxicillin and gentamicin were hosted by the Child Health Task Force in May. The meeting on the bottleneck of inaccurate quantification and inadequate financing led by PSM and R4D was held on May 10, attended by 88 participants. The consultative meeting focusing on the bottleneck of quality of products not being guaranteed, led by PQM+, was held on May 17 and had 70 participants. The final meeting in the series on appropriate use (both by providers and caregivers), led by MTaPS and featuring country case studies from GHSC-PSM Ethiopia and UNICEF Senegal, was held on May 24; 53 participants joined. All three meetings were held on Zoom with simultaneous interpretation in French. The presentations and meeting recordings are available on the Child Health Task Force website. MTaPS, GHSC-PSM, and PQM+ consolidated the group work from the meetings and have developed an outline of a call-to-action paper to provide a set of actionable solutions to countries. The paper will be developed as a collaborative activity in PY4.

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

Year 3, Activity 5.1.1: Validation of the RMNCH forecasting supplement

The RMNCH forecasting package (supplement, algorithms, Excel tools, and summary document) was completed and is available on the MTaPS website.[6] The French translation is also complete, and the

[6] https://www.mtapsprogram.org/our-resources/forecasting-consumption-of-select-reproductive-maternal-newborn-child-health-medical-products/

documents are being edited and formatted. In Q3, MTaPS held a series of orientations on the forecasting package and invited GHSC-PSM to be involved in each session. The child health task force webinar was held on June 28, moderated by Patrick Gaparayi of UNICEF as co-chair of the commodities subgroup. The webinar was simultaneously translated into French; 85 people joined the webinar (out of at least 200 registrants). An orientation of PSM task order 4 country teams was conducted on June 29. There were 8 PSM country teams represented: Burkina Faso, Zambia, Pakistan, Mali, Nigeria, Malawi, Haiti, and Liberia and 26 people on the call. On June 30, MTaPS conducted a webinar to the Maternal Health Supplies Caucus, moderated by Milka Dinev, LAC Forum Regional Advisor and Maternal Health Supplies Coordinator of the Reproductive Health Supplies Coalition, with 58 participants (150 registered). In each session, after MTaPS presented an introduction on the RMNCH forecasting supplement and an example of forecasting for an MNCH condition for the specific audience, there was a short presentation from one or two of the GHSC-PSM country teams (depending on the session) on their experience using the supplement. There was also a presentation by the GHSC-PSM forecasting and supply planning team providing an update on their Quantification Analytic Tool (QAT) and highlighting how assumptions in the RMNCH forecasting supplement can be incorporated into the QAT and used as part of the quantification approach. In each of the webinars, there was an active chat about different issues related to the forecasting methodology and MNCH assumptions.

BEST PRACTICES/LESSONS LEARNED

- The webinars on the RMNCH forecasting supplement were an opportunity to present and discuss important issues related to forecasting of MNCH medical products and more generally on management of MNCH medicines. In the MHSC webinar, MTaPS highlighted that heat-stable carbetocin, included in the update of the forecasting supplement, is only indicated for prevention of post-partum hemorrhage and not treatment for other indications and that it cannot be used to replace oxytocin, as it cannot be used for all indications that oxytocin is used for. In the CHTF webinar, MTaPS stressed the dosage of amoxicillin for different age bands at facility and community levels.
- The collaboration between GHSC-PSM and MTaPS in the preparation and delivery of the webinars demonstrated the synergy between the projects and how both projects can help country stakeholders better quantify MNCH medical products. The collaboration was applauded by key stakeholders.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Year 2, activity 2.1.1	
■ Disseminate the SADC forum report for regulators to use as an advocacy tool with their management boards	July – September 2022
■ Finalize and share the final products of the support to ANARME in Mozambique	July – September 2022
Year 3, 2.1.1	
■ Finalize the document of consideration for regulating MNCH medical devices	July – September 2022
■ Disseminate and build capacity of regulators through a joint assessment of an MNCH medical device	October – December 2022
Year 4 activity 2.1.1 and 2.1.2	
■ Engage AMDF and the selected regional economic community in planning activities	July – September 2022

Year 2 3.1.1	
■ Disseminate reports of the mapping of subnational procurement practices in Nepal and the stakeholder workshop	July – September 2022
Year 3 and year 4 activity 3.1.1	
■ Develop and disseminate guidance on subnational procurement	July-October 2022
Year 4 activity 5.1.1	
■ Develop first draft of the call-to-action paper on improving access and appropriate use of amoxicillin and gentamicin	July – September 2022
Year 3.5.1.2	
■ Finalize and upload the French RMNCH forecasting package to the MTaPS website	July – September 2022
Year 2, activity 5.2.1 and year 3 activity 2.1.2	
■ Finalize the draft scope of the oxygen QA guidance document and the TOR for the consultant to share with WHO	July – September 2022
Year 4 activity 1.3.1	
■ Recruit consultant to develop the summary of the social accountability thought paper	July – September 2022
■ Develop first draft of the summary	July – September 2022

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

OVERVIEW

USAID advances and supports voluntary FP/RH programs in nearly 40 countries and, as a core partner of FP 2030, is working with the global community to reach an additional 120 million women and girls with FP information, commodities, and services.[7] 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 is using CSL funds to contribute 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 the supply and logistics services for improved 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 country (e.g., the private sector, providers, and other stakeholders in the community) through targeted advocacy and evidence-based technical assistance, the following objectives will be achieved: increased government financing of FP/RH commodities leading to improved availability of and access to these commodities at service delivery points and in communities.

CUMULATIVE PERFORMANCE TO DATE

YEAR 3, ACTIVITY 1: INCREASING GOVERNMENT FINANCING OF FP COMMODITIES AND SUPPLY CHAIN IN A DECENTRALIZED HEALTH SYSTEM: A POLITICAL ECONOMY ANALYSIS (PEA)

MTaPS is conducting 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 will enable MOH, USAID, and other stakeholders to be better informed about the factors that currently influence priority setting and financing and procurement allocations for FP commodities at different levels of the system as well as possible entry points and potential interventions. The PEA will contribute to the development and implementation of a 10-year supply chain roadmap plan aimed at supporting the Government of Uganda to achieve self-reliance in supply chain and essential medicines and supplies being supported by the USAID/Strengthening Supply Chain Systems Activity. The PEA will provide 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.

The briefing for the Commissioners of Pharmacy and of Reproductive and Child Health, introductory meeting of stakeholders, and letter signed by the Minister of Health—all coordinated by MTaPS—facilitated the participation of stakeholders working in the FP and RH space in the PEA. By the end of PY4 Q1, MTaPS completed 30 interviews with 35 key informants, including development partners; implementing partners; the MOH's Departments of Pharmacy and Reproductive and Infant Health; the

[7] OPRH. (2020). Family Planning and reproductive health overview. USAID Office of Population and Reproductive Health. Available at: https://www.usaid.gov/sites/default/files/documents/FPRH-factsheet_OCT2020.pdf

Ministry of Finance, Planning and Economic Development; the Ministry of Local Government; the National Population Council; national medical stores; local NGOs; and CSO coalitions. MTaPS then completed an analysis of the desk review and interview data, developing a draft of a policy brief entitled, "Increasing government financing and resource allocation for FP commodities and supply chain operations in Uganda: A Political Economy Analysis."

YEAR 3, ACTIVITY 2: 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 fourth party logistics providers (4PLs) with the objectives 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: a desk review of 4PLs in public health supply chains, a rapid PEA to understand influences and motivating factors, an operational capabilities analysis, and a CBA in both countries. After completing data analysis, MTaPS drafted technical reports for Nigeria and the Philippines, as well as produced two advocacy briefs entitled "Building a more efficient public-health supply chain through 4PL"—one for the Philippines and one for Nigeria. 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 recommendations from the workshops will be incorporated and used for next steps and implementation.

YEAR 3, ACTIVITY 3: USE OF RETAIL PHARMACIES AS A SOURCE OF FP PRODUCTS AND OTHER ESSENTIAL MEDICINES FOR PUBLIC SECTOR CLIENTS IN LOW- AND MIDDLE-INCOME COUNTRIES (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 against risks associated with the engagement of private-sector pharmacies. MTaPS developed country case reports from three selected high-income countries (Spain, Sweden, and the United Kingdom) and three LMICs (Namibia, Ghana, and South Africa) and drafted the thought leadership paper which was shared with USAID and external reviewers for comments and inputs. MTaPS completed and shared with USAID the final version of the 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 in LMICs. MTaPS developed a dissemination plan for the paper, including webinars, social media, and distribution on listservs. MTaPS then facilitated a dissemination webinar for a USAID-only audience to share and discuss the findings of the paper and make recommendations on potential next steps. Approximately 110 participants attended the webinar.

QUARTER 3 ACHIEVEMENTS & RESULTS

In this quarter, MTaPS started implementation of PY4 activities and neared completion of PY3 activities.

YEAR 3, ACTIVITY 1: INCREASING GOVERNMENT FINANCING OF FP COMMODITIES AND SUPPLY CHAIN IN A DECENTRALIZED HEALTH SYSTEM: A PEA

In this quarter, MTaPS held a validation meeting in Kampala of the findings of the Uganda PEA with remote assistance from MTaPS home office experts. Representatives from a range of constituents including MOH RMNCH, supply chain and policy units, implementing partners, UN partners, and civil society were present. Participants were supportive of the findings and provided constructive input to finalize the policy brief. Prioritized next steps were noted. The policy brief was also reviewed by USAID/Uganda, USAID/Washington, and key MOH stakeholders. It is now under finalization and incorporates some minor edits from the meeting discussion. The PEA methods module is undergoing finalization and will allow others to apply the streamlined PEA methodology that the MTaPS team found effective.

YEAR 3, ACTIVITY 2: ADVOCACY FOR GOVERNMENTS TO LEVERAGE PRIVATE SECTOR LOGISTICS CAPABILITIES TO INCREASE ACCESSIBILITY AND AVAILABILITY OF FP COMMODITIES

During this quarter, MTaPS modified the contract with PSA to finalize the technical reports; the revision is in progress. A webinar for USAID on the results of the study is tentatively scheduled for July 14, 2022.

YEAR 3, ACTIVITY 3: 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 hosted a global learning series webinar on May 19 with 174 participants. Presenters and panelists represented MTaPS, USAID, the University of Birmingham, the Center for Global Development, and Boston University. The webinar explored the pros and cons of outsourcing essential medicines and FP products to private retail outlets. There was an informative question and answer session, as well as active participant engagement in the chat. The final version of the thought leadership paper has also been shared with USAID and uploaded to the MTaPS website. This activity is now complete.

YEAR 4, 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

This quarter, MTaPS had ongoing discussions with Ona and Softmed regarding system specification and software configuration/development of the OpenSRP tool. The team arranged a series of OpenSRP demonstrations with Ona to better understand the existing system capabilities and alignment with needs. The system specifications were developed and used to solicit proposals from both vendors. After evaluating the two proposals, MTaPS held follow-up meetings with both vendors to provide feedback and clarify expectations and the budget. MTaPS expects to receive a revised proposal from one vendor. The second vendor is confirming whether it can meet MTaPS' requirements. The MTaPS team also had two meetings with the CSL team to clarify the research questions and objectives, as well as the sampling approach for the randomized control trial. The study will be conducted in Zambia's Luapula province. The team has started drafting the protocol, which will be shared for USAID review once the subcontracts have been finalized.

YEAR 4, ACTIVITY 2: DISABILITY INCLUSION IN THE HEALTH SUPPLY CHAIN WORKFORCE

In this activity, MTaPS will conduct a landscape analysis through desk review and scoping interviews to better understand where countries are with respect to disability inclusion and to identify key stakeholders and nascent efforts or trends with respect to disability inclusion. Also, MTaPS is planning a global survey of supply chain practitioners to be administered through People that Deliver. MTaPS is also planning to develop a country case study on disability inclusion in the health supply chain workforce.

MTaPS and USAID agreed on a collaborative approach to forming a TWG to facilitate and guide the study, seeking to attain a balance between supply chain and workforce/disability inclusion champions. MTaPS shared a framework for country selection for the case study and a draft list of potential TWG members for USAID inputs. After receiving feedback from USAID, MTaPS began sending solicitation emails to recruit working group members and drafted the SOW for a consultant to support the landscape phase.

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

During this quarter, the MTaPS team held initial discussions with the MTaPS Nigeria and Philippines teams, as well as the Nigerian MOH and PSA, regarding the development of the draft work plan. Following discussions with USAID, MTaPS revised the work plan, which will now focus on follow-on work in Nigeria.

BEST PRACTICES/LESSONS LEARNED

- In the Ugandan FP PEA activity, MTaPS was able to demonstrate the effective use of remote short-term technical assistance to effectively conduct a streamlined PEA. A key success factor has been local MTaPS champions who have seen the importance of this activity, aligning it with their own project priorities. Leveraging their relationships with stakeholders has also been critical to the PEA's success.
- More educational presentations for government stakeholders on 4PL are important for increasing their awareness and knowledge of the issue, as it is a fairly new concept in LMICs' public health supply chain.
- The retail pharmacy activity highlighted that academic studies are an important first step to considering options in LMIC contexts. However, more exploration is needed to understand the feasibility in a particular country setting.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Year 3, Activity 1:	
■ Complete the PEA policy brief	July-September 2022
■ Finalize the PEA methods module	
Year 3, Activity 2:	
■ Hold workshop for USAID on study results	July-September 2022
■ Finalize the technical reports	
Year 4, Activity 1:	
■ Contract OpenSRP vendor for software development	July-September 2022
■ Finalize and submit protocol for ethical review	

Year 4, Activity 2: ■ Convene TWG ■ Contract consultant and initiate landscape review	July-September 2022
Year 4, Activity 3: ■ Identify and contract consultants, commence activities	July-September 2022

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, which 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 current 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 products regulation on the continent—especially in the wake of the COVID-19 pandemic—and participated in advocacy initiatives for the creation of the African Medicines Agency for improved regulation of medical products in Africa. MTaPS also supported other institutional capacity development efforts for medicine regulation. The program supported AUDA-NEPAD to conduct a quality review of the AMRH program management guidance tool aimed to help streamline regulatory harmonization program implementation, strengthening the impact and sustainability of program results and outcomes. MTaPS also validated the M&E tool for the performance of AMRH's Regional Centers of Regulatory Excellence and collected baseline data. MTaPS has been involved in developing a set of minimum common standards for regulatory IMS for adoption in LMICs. MTaPS and PQM+ jointly convened the final consultative meeting in June 2022 to validate the set of standards identified through the consultation process with key global stakeholders and representatives from national regulatory authorities. An advocacy brief to promote adoption of the identified standards was also finalized.

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 successfully launching the PSS 101 course last quarter. Previously, MTaPS convened an 11-member PSS technical advisory group of donor governments, foundations, academic institutions, and public-private partnerships to publish a paper to generate political attention on improving access to medicines in health systems. The program also successfully conducted a peer-to-peer learning exchange on medical products pricing strategies with health policy and financing government officials from 15 LMICs. To date,

MTaPS has submitted 50 global conference abstracts and 13 published peer-reviewed manuscripts across its various technical areas.

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

MTaPS developed a policy and guideline document entitled *Practical Guide for Systematic Priority Setting and HTA Introduction in LMICs,* a roadmap that provides a stepwise approach for HTA implementation. In October 2020, MTaPS hosted a webinar with over 300 attendees to launch the roadmap. The recording has been viewed more than 18,000 times and the roadmap has been downloaded at least 370 times. The program is now piloting the roadmap in Ethiopia.

MTaPS has also been collaborating with the USAID LHSS project to develop an approach for tracking pharmaceutical expenditure using the Systems for Health Accounts 2011 framework. The team drafted a pharmaceutical expenditure 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 pharmaceutical expenditures 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 WAHO and the 15 ECOWAS member states to develop 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 and WAHO successfully launched the ECOWAS web-based PV portal at a virtual event on April 28, 2022.

The program 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. The case study showed that the maternal and newborn health and quality improvement staff in HFs generally rely on a set of eight tools related to quality improvement, IPC, and supportive supervision. The study also showed that a robust internal/external supportive supervision mechanism is in place.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

The first phase of this activity involves a three-country case study to examine the current status of national PSUs with respect to their structure, roles, responsibilities and operation, how they have evolved over time, and what should be the critical roles and responsibilities of these units going forward. The second phase involves using the findings from the case studies to develop a typology of PSUs that defines their structure and mandate within MOHs and benchmarks for evaluating the function of these units in fulfilling their mandates. This quarter, MTaPS received mission concurrence from Côte d'Ivoire, Kenya, and Nepal and held an initial meeting of the TWG with participation from WHO, USAID, People that Deliver, Commonwealth Pharmacists Association, and representatives from the three case study countries. In Kenya, MTaPS held a launch meeting with the MTaPS country lead and the nominated MOH counterpart and submitted the protocol for ethics review. In Côte d'Ivoire, MTaPS conducted an information meeting with the MTaPS country lead, who worked to identify an MOH counterpart to help lead the study. The team is currently translating the protocol to French to submit for ethics review. In

Nepal, the protocol is being finalized for submission and the MOH counterpart will be briefed. The team also completed the first draft of the global landscaping review.

ACTIVITY 2.4.1: COMMON STANDARDS FOR REGULATORY INFORMATION MANAGEMENT SYSTEM (IMS) TOOLS IN LMICS

Activity 2.4.1.1: Dissemination and roll out of common standards

This quarter, the team performed an analysis of the feedback received from selected country national regulatory authorities and other global stakeholders. The team presented the set of identified minimum common standards to stakeholders for validation during the final consultative meeting held on June 2, 2022. A report on the consultative process leading to the identification of the set of minimum common standards is being drafted. The team also consulted with the MTaPS and PQM+ communications teams to develop a dissemination strategy. MTaPS finalized the advocacy brief, a component of the strategy which is undergoing editorial review. The team started working on the final deliverable for the activity—drafting the outline for the guidance document on the pathway for digitalization. The next step is to develop the draft to align with feedback MTaPS and PQM+ received from WHO regarding principles for regulatory IMS digitalization.

Activity 2.4.1.2: Optimize Pharmadex and PViMS to reflect common standards, add vaccines and medical devices, and incorporate emergency use authorizations and monitoring/oversight

This quarter, MTaPS developed an approach for the proposed Fast Healthcare Interoperability Resources (FHIR) services, and the design of the FHIR messages is underway to allow interoperability between Pharmadex and PViMS. The team also uploaded new Pharmadex and PViMS updates to GitHub. This quarter, MTaPS also worked with the Nepal Department of Drug Administration to successfully launch Pharmadex 2 for the licensing of pharmacies and wholesalers.

ACTIVITY 3.3.1: MEASURING PSS, INCLUDING ACCESS TO MEDICINE

During this quarter, MTaPS held meetings with government counterparts in Nepal, Tanzania, and Uganda and identified focal persons for collaboration on data collection for the pilots. In Bangladesh, MTaPS met with the Directorates of Health Services, Family Planning, and Drug Administration to introduce the pilot activities. A consultant for data collection has been identified in Uganda, and consultant onboarding is underway. Consultant recruitment for data collection is underway in Bangladesh.

The development of the software requirement specifications document continued and is under finalization. MTaPS held a meeting to update the USAID COR team and present recommendations for the structure and functionality of the web-based tool. A working prototype of the PSS Insight v2.0 web-based platform is under development, and discussions with MTaPS partner organizations regarding the software development have begun.

ACTIVITY 3.3.2: PSS 101 COURSE

In April, MTaPS held technical discussions with instructional design consultants and GHeL hosts. The Good Governance in the Management of Medicines course is now on GHeL, with all intended edits identified, and the team is currently working with GHeL to update directly to the learning management system.

The report of the March PSS 101 training has been submitted, the second delivery of PSS 101 has been confirmed for September 2022, and USAID University's website is now open for training enrollments. The team also developed a SOW and identified a consultant to develop a French version of the course.

ACTIVITY 3.3.3: PSS LEARNING EXCHANGE ON THE JLN FOR UHC

After receiving approval from the JLN Steering Group, MTaPS advertised an expression of interest for the learning exchange on managing conflicts of interest in national pharmaceutical systems. The process yielded 89 responses from 34 countries. The team screened the participants against a set of predetermined criteria and invited 62 participants from 19 countries to participate in the exchange. MTaPS prepared a participant's handbook and recruited global experts from the University of Toronto, WHO Geneva and Southeast Asia Region, and the University of San Francisco to create a broader facilitation team. The team successfully launched the learning exchange with the first session on June 14, 2022, and two subsequent sessions on June 21 and 28. Participants were tasked with developing an action plan for managing conflicts of interest in their own setting and will present their plan and any action taken towards implementation at a report-out session scheduled for August 16.

ACTIVITY 5.4.1: TESTING BEHAVIORAL NUDGES FOR AMS

MTaPS coordinated with the team in Uganda to identify a local co-investigator at Makerere University to help support the study entitled *Behavioral Nudges to Encourage Appropriate Antibiotic Use Among Health Professionals in Uganda* and navigate the ethical review process. The team finalized and submitted the protocol for ethics review on May 31 to the Makerere University School of Health Sciences Research Ethics Committee. The team received preliminary feedback from the ethics committee and is working to quickly address the comments and resubmit the protocol. The team also finalized the study sites: Masaka Regional Referral Hospital, Moroto Regional Referral Hospital, Hoima Regional Referral Hospital, Mityana General Hospital, and Nakaseke General Hospital. MTaPS recruited a consultant to support data collection and is working to finalize the hiring process.

ACTIVITY 6: PROGRAM MANAGEMENT

The program prepared and submitted 16 individual abstracts for consideration at 4 international conferences. Three abstracts were submitted twice for a total of 19 submissions.

People that Deliver Global Indaba, scheduled for October 12–13, 2022:

- No Passport Required: Re-imagining Technical Assistance in a Changing World
- Pharmaceutical Systems Strengthening – How to Strengthen this Key Subsystem of the Health System
- Procurement and Supply Chain Management Local Technical Assistance Providers Scheme for Local Government Units in the Philippines

Health Systems Research (HSR 2022), scheduled for October 31–November 4, 2022:

- Streamlining Political Economy Analysis Approaches in Health Systems Research
- Engaging with Accountability Ecosystems to Improve Health System Responsiveness for Improved Access to and Appropriate Use of Quality Maternal, Newborn, and Child Health Medicines
- Effective Multisectoral Coordination on Antimicrobial Resistance: Lessons from a 13-Country Experience

- International Benchmarking of Affordability Policies for Noncommunicable Diseases—Lessons from Latin America
- Charting the Progress of HTA in Asia: Are We Ready for Evidence-Based Decision Making?
- Strengthening Health Care Workers' Capacity in the Use of an Electronic Reporting System to Support Tuberculosis Elimination Efforts in Bangladesh
- Pharmaceutical Systems Strengthening—How to Strengthen This Key Subsystem of the Health System

American Society of Tropical Medicine and Hygiene, scheduled for October 30–November 3, 2022:

- Strengthening Health Care Workers' Capacity in the Use of an Electronic Reporting System to Support Tuberculosis Elimination Efforts in Bangladesh

American Public Health Association, scheduled for November 6–9, 2022:

- Uptake and Integration of the WHO AWaRe Categorization of Antibiotics in National Antimicrobial Stewardship Documents in LMICs: Experiences from Five Countries
- Strengthening Infection Prevention and Control to Enhance Preparedness and Response for COVID-19 Emergencies in Ethiopia
- Strengthening Infection Prevention and Control to Reduce Vulnerabilities to Emerging and Re-Emerging Infectious Diseases—the Case of Ethiopia
- Continuous Quality Improvement of Infection Prevention and Control Practices in HFs in Cameroon: Lessons Learned
- USAID MTaPS Support to the Government of Bangladesh to Strengthen the Health Care System to Combat COVID-19
- No Passport Required: Re-Imagining Technical Assistance in a Changing World
- PSS Insight v2.0—a Framework and Indicators for Measuring Pharmaceutical Systems Strengthening
- Strengthening Health Care Workers' Capacity in the Use of an Electronic Reporting System to Improve Tuberculosis Management in Bangladesh

HSR 2022 notified MTaPS that none of the four panel proposals submitted in the previous quarter were accepted. Notifications for the individual abstracts submitted this quarter are pending. This quarter, MTaPS also finalized its preparations for the 2022 Global Health Security Conference, held June 28–July 1, 2022, in Singapore where the program presented its GHSA work in a mix of panels, oral presentations, and poster sessions.

EXTENDED YEAR 3 ACTIVITIES

ACTIVITY 3: ROADMAP FOR HTA INSTITUTIONALIZATION

In April, MTaPS/CREATE representatives met with the USAID Mission in Ethiopia, the MOH, and the Ethiopian Public Health Institute (EPHI) to discuss the Ethiopian government's priorities on HTA implementation in the country and MTaPS' proposed work plan, as well as potential areas of collaboration. MOH is interested in receiving support from MTaPS but requested flexibility as they define priorities. In the interim, the MTaPS team has been working with the in-country consultant from CREATE on the other deliverables agreed upon with the MTaPS team. The team is developing a manuscript detailing a realist review of HTA set up mechanisms and how each performs in different circumstances. MTaPS has also engaged a consultant to work on the canvas tool, which is currently in

the research stage and will help countries think through the various components of introducing and advancing HTA.

ACTIVITY 4: IMPROVE PHARMACEUTICAL EXPENDITURE TRACKING AND USE OF EXPENDITURE DATA FOR DECISION MAKING

This quarter, MTaPS shared the Burkina Faso draft pharmaceutical expenditure illustrative policy brief with USAID for review. The team is incorporating USAID COR's feedback and proceeding with the French translation of the brief. Additionally, MTaPS conducted a debriefing on the pharmaceutical expenditure tracking exercise for ministry officials in Burkina Faso. MTaPS also completed the pharmaceutical expenditure tracking in Benin and developed the policy brief. The team is currently reviewing the policy brief and will share the brief with USAID for additional review. MTaPS has requested a meeting with the Benin health accounts team and other stakeholders to present the preliminary results. MTaPS shared a PowerPoint presentation with MOH and is waiting for MOH to set a date for the meeting.

ACTIVITY 6: ADVANCING EQUITABLE ACCESS TO QUALITY PHARMACY SERVICES IN THE PRIVATE SECTOR THROUGH RETAIL DRUG SELLERS

During this quarter, MTaPS finalized the concept note for the five-part webinar series exploring the theme of advancing equitable access to quality pharmacy services through retail drug outlets. The team conducted the first four webinars in June:

- Promotion of good pharmacy practice, June 8
- Successful interventions for reaching the most vulnerable, June 16
- Innovations in patient-centered pharmacy services, June 22
- Financing access to pharmacy services, June 29

The last webinar in the series, "Capstone: Defining a pathway to more equitable access to quality pharmacy services," is scheduled for July 6.

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

In April, MTaPS submitted the study protocol to the national bioethics committee in Mozambique for review. The committee responded in June requesting a letter of support from ANARME. The team is currently liaising with ANARME to arrange and submit the additional documentation. In the interim, the team has started the desk review and has been conducting FGDs with staff internally to gather institutional knowledge about the implementation and use of Pharmadex and PViMS.

EXTENDED YEAR 2 ACTIVITIES

ACTIVITY 8: SUPPORT AFRICAN REGIONAL HARMONIZATION EFFORTS FOR PV

During this quarter, MTaPS coordinated with the WAHO Secretariat and ECOWAS to collect country data, finalize the TOR for the community of practice, and prepare the final launch of the PV portal formally. On April 28, 2022, MTaPS—in collaboration with WAHO—officially launched the ECOWAS web-based platform for tracking PV system indicators for medicines safety and the WHO GBT for evaluation of national regulatory system, with participation from USAID, WAHO, and ECOWAS member state regulatory authority managers. The portal was handed over to ECOWAS countries and

WAHO and will facilitate the exchange of information across the West African region on patient safety. Additionally, the collaborative community of practice will enable countries to share information and assist with strengthening PV systems that are currently weak or non-functional.

BEST PRACTICES/LESSONS LEARNED

- The webinar series on advancing equitable access to quality pharmacy services through retail drug outlets highlighted some important truths around leveraging the private sector to improve access, such as:
    - It is critical to understand the local landscape with respect to the different types of outlets, their market share, and who they are serving and their level of accessibility for different segments of the population.
    - Good pharmacy practice is at the foundation of improving equitable access to quality services.
    - Regulation—not only of products, but also people, premises, and practice—is paramount and requires a regulatory body with autonomy and adequate resources that can enforce regulations with some pragmatism and agility.
    - The emergence of e-pharmacies and other digital innovations is an opportunity to rethink the primary health care model and the potential for pharmacy services to serve as an entry point for other types of health care. Again, this requires a pragmatic approach to regulation, giving innovations the space to grow and figure out how to be effective while safeguarding public health.
- An important lesson emerging from the JLN learning exchange is that a COI is a situation that results from activities or relationships that compromise an individual's independent judgment or accountability to a party that they are obligated to serve. Individuals who serve on pharmaceutical committees often have multiple roles and responsibilities, and the existence of secondary interests increases the risk of a fiduciary failing to fulfil a primary duty of serving the interest of the public. It is therefore important to prevent and manage COIs, and we can start by normalizing and valuing impartiality and transparency.
- MTaPS' work with WAHO to establish the PV portal demonstrates the importance of political will—in this case on the part of both WAHO and the ECOWAS member states—in facilitating the regional cooperation that was critical for development and deployment of the portal. Similarly, the consultative process for identifying the minimum common standards for regulatory IMS highlights the importance of collaborating with regional and national bodies to develop the standards.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
2.2.1. Assessing the Roles of National PSUs	
■ Finalize ethics submissions for Nepal and Côte d'Ivoire ■ Complete data collection and analysis in Kenya, Nepal, and Côte d'Ivoire ■ Prepare draft report	July-September 2022
2.4.1.1. Dissemination and Roll Out of Common Standards	
■ Finalize the report on the outputs of the entire six-month consultative process with global stakeholders ■ Develop the guidance document outlining the pathway for countries to digitalize regulatory functions incorporating the minimum common standards	July-September 2022

2.4.1.2. Optimize Pharmadex and PViMS to Reflect Common Standards ■ Continue to develop workflows for GBT2 Marketing Authorization and GBT4 Marketing Surveillance and Control ■ Develop an advanced reporting module using business intelligence technology	July-September 2022
3.3.1. Measuring PSS, Including Access to Medicine ■ Complete data collection for Nepal, Bangladesh, and Uganda pilots ■ Begin web development for pssinsight.org v2.0	July-September 2022
3.3.2. PSS 101 Course ■ Deliver blended virtual PSS 101 course through USAID University ■ Complete French translation of PSS 101 and upload to GHeL ■ Finalize updates to PSS good governance course on GHeL	July-September 2022
3.3.3. PSS Learning Exchange on the JLN for UHC ■ Review submitted action plans and provide feedback to participants ■ Conduct final report-out session	August 2022
5.4.1. Testing Behavioral Nudges for AMS ■ Finalize the hiring of the local consultant to help with data collection ■ Finalize revision based on the preliminary IRB review feedback and resubmit protocol for review of the updated version by the Makerere ethics committee ■ Identify specific key informants from the hospitals and the AMS TWG for phase 1 qualitative study; conduct key informant interviews and baseline data collection after Makerere and national IRB approvals of the protocol	July-September 2022
6. Program Management ■ Complete participation at 2022 Global Health Security Conference ■ Start preparing for participation in other conferences pending abstract acceptance	July-September 2022
Year 3, 3. Roadmap for HTA Institutionalization ■ Hold follow-up conversation with the MOH and EPHI teams to define next steps on support for HTA implementation ■ Finalize a manuscript detailing review of what HTA set up mechanism works in Ethiopia, for whom, and under what circumstances ■ Draft a document detailing technical and informational needs to conduct one or more components of HTA in Ethiopia—both within and outside government structure ■ Draft a document outlining options for setting up HTA agency in the Ethiopian context	July-September 2022
Year 3, 4. Improve Pharmaceutical Expenditure Tracking and Use of Expenditure Data for Decision Making ■ Finalize and submit the Benin policy brief	July-September 2022
Year 3, 6. Advancing Equitable Access to Quality Pharmacy Services in the Private Sector through Retail Drug Sellers ■ Conduct the final webinar in the series ■ Develop technical brief	July-September 2022
Year 3, 7. Investigating the Use of Information from PMIS for Evidence-Based Decision Making ■ Pending ethical approval, conduct data collection and analysis	July-September 2022

F. VOLUNTARY ACCESS MECHANISM FOR ORIGINATOR HEALTH SUPPLIES (VAMOHS)

OVERVIEW

From September 2021 to May 2022, MTaPS supported USAID in exploring the feasibility and design of potential first steps of VAMOHS. VAMOHS is intended to facilitate access to new (mostly on-patent) medicines and other health products in MICs, in a more rapid manner at higher aggregate volumes and lower unit cost to purchasers and patients in developing countries, particularly MICs. VAMOHS seeks to address market inefficiencies to promote prompt and commercially sustainable access to medicines, diagnostic tests, and medical devices by helping to de-risk markets, reduce transaction costs associated with market entry, and increase the bargaining power of purchasers.

CUMULATIVE PERFORMANCE TO DATE

VAMOHS is a recent activity. Assessment of its performance began at the end of PY3. MTaPS has been helping USAID refine its thinking on the VAMOHS medicines market access model, enablers of success, and best entry point since PY3 Q4. Through desk reviews and qualitative analyses (including brainstorming sessions, in-depth interviews, and FGs), MTaPS evaluated the likelihood of success for VAMOHS. MTaPS held regular meetings with USAID to refine the work plan and facilitated interviews with key stakeholders from Latin America in PY3 Q4 from government agencies and pharmaceutical companies. The objective of these in-depth interviews was to collect feedback on the mechanism and identify areas needing improvement in medicine access, particularly in the Latin American context.

One of the tasks assigned to MTaPS was to facilitate two FGs with regional experts representing different sectors and working on improving access to medical products. After several conversations with USAID during PY3 Q4 and PY4 Q1, it was agreed that the regions selected for the FGs would be Latin America and Asia. The main objective of the FGs was to collect feedback on the mechanism, review challenges that hinder access to medicines at a regional level and identify areas for improvement in medicine access specifically for each region.

The FG for Latin America was initially planned for PY4 Q1 but was postponed until PY4 Q2 because of scheduling conflicts of some participants. A total of 15 attendees representing a diverse set of government agencies from different countries, pharmaceutical companies working in the region, academia, and patient association groups joined the virtual FGD on February 8, 2022. MTaPS presented several propositions in the FGD around some of the challenges as well as the current state of access to innovative medicines in Latin America. The propositions were informed by a desk review, as well as the interviews with key regional stakeholders prior to the FGD. Based on the propositions, participants engaged in a deep discussion where they shared their comments and views on the challenges presented and proposed solutions in which VAMOHS could be a key mechanism to increase access to medical products in the region.

Overall, the objective of the first FG was achieved. Stakeholders had the opportunity to present different suggestions about how VAMOHS could act as a mechanism to address some of the many challenges faced in Latin America in terms of access to medical products. Given the success of the first FG, USAID held follow-up interviews with some participants whom they had not met prior to the FGD

to collect additional information about challenges in a particular country, unmet clinical needs, and products of interest that have a substantial health value in this context.

The second FG was held in PY4 Q3, on March 29, 2022, with participants representing diverse sectors in Asia. Prior to the second FG, a desk review of factors that hinder access to medicines, particularly in Asia, was conducted to inform propositions and stimulate discussion of potential solutions. In the Asia region, the FGD included eight participants representing government agencies in the Philippines and Indonesia, as well as stakeholders representing pharmaceutical companies and NGOs working in the broader region. Propositions were tailored to reflect regional challenges and needs, and participants had the opportunity to discuss propositions about the current state and potential solutions to overcome those challenges through a mechanism like VAMOHS.

With the success of the first two FGs, the VAMOHS advisory group requested that MTaPS hold a third one to collect information about challenges and status of access to medicines in Africa. The Africa-focused FG was added to the initial work plan and an FGD on medicine access and potential solutions was held in PY4 Q3. A desk review on challenges and solutions in the region was conducted to inform the propositions presented to FGD participants. This FG consisted of eight participants from Ghana, Namibia, Nigeria, and South Africa, with fairly equal distribution of stakeholders representing payers and manufacturers.

In addition, a conversation about a potential collaboration with representatives from IQVIA to explore a partnership between VAMOHS, MSH/MTaPS and IQVIA was held in PY4 Q1. The objective of this potential partnership would be to review existing data on product launch, penetration/revenue, and ways in which VAMOHS would enable companies to launch in more countries. Subsequent conversations refined the ideas, carrying this activity over to Q2 as there were further interactions between IQVIA and USAID.

QUARTER 3 ACHIEVEMENTS & RESULTS

The activities proposed by MTaPS in the work plan were successfully completed and delivered in a timely manner before the end date of this activity in PY4 Q3. Through interviews with key stakeholders and FGs in three regions, MTaPS identified critical aspects for future country and industry participation in VAMOHS and suggested three possible countries that have all the attributes for potentially supporting the VAMOHS approach. There was significant engagement from participants in all these activities and an appetite to continue working on refining the mechanism in all the regions of interest.

Results and analyses from the different activities conducted by MTaPS were compiled in a final report and submitted to USAID in early June. Regions were selected for FGs based on MTaPS and USAID's interest and knowledge of each region, and countries were selected based on their health system performance, interest, and readiness to adopt innovative mechanisms, such as VAMOHS. The three potential countries recommended by MTaPS—Colombia, the Philippines, and Ghana—were identified based on the following criteria:

- Stable middle-income country
- Political will and champions for program within government
- Well-developed regulatory and distribution systems
- Payers on board with the idea of a mechanism, such as VAMOHS

Many themes that emerged from the FGDs are opportunities for VAMOHS to work across countries and regions, whereas others should be addressed at a regional level. Critical aspects emerging from the desk reviews and focus groups include challenges around delayed regulatory approvals, fragmentation, need for better use of generics to reduce the burden of medicine prices, lack of data to inform decision making, and need to strengthen HTA. VAMOHS could serve as a mechanism to look at common inefficiencies globally and support efforts in addressing one or more of the challenges presented. Table 1 shows an overview of key themes that surfaced.

VAMOHS could also work within regions. Participants expressed interest in having regional mechanisms to address some of their challenges and increase access to medicines by strengthening relationships across countries. In Latin America, the regional approach could be around a mechanism to increase trust between stakeholders and transparency on clear approval pathways for entry of new medicines, which is the main challenge experts identified. In Asia, regional collaboration could be centered around price negotiation using existing mechanisms, like the Pan American Health Organization revolving fund, to negotiate prices and procure medical products. In Africa, a regional effort could entail building a pan-African approach to promote direct dialogues and close the gaps between manufacturers and purchasers, as in certain cases they cannot negotiate directly given strict regulations, and to strengthen HTA.

Overall, Q3 was a highly productive quarter for VAMOHS; MTaPS completed the activities in the work plan. The activities made evident the need for, and significant interest from all regions in, a mechanism like VAMOHS to support negotiations between different stakeholders. MTaPS successfully facilitated FGDs, individual interviews, and making a case for VAMOHS in these regions. Although there were some delays due to changes in staff at the beginning of the work plan's implementation, all activities were completed on time, and the information collected was compiled in a final report for USAID and the VAMOHS advisory group. This report has been a useful resource to inform decisions about next steps for VAMOHS.

Table 2. Key themes across regions based on literature review findings and FGDs

CHALLENGES	OPPORTUNITIES
Delays in the regulatory approval process due to strict requirements and processes	Increasing alignment and transparency of regulatory authorities across countries to streamline the regulatory approval process
Health system challenges related to access to hospitals, diagnostics, and health care providers that limit the ability of patients to benefit from these medicines	Improving identification of common global inefficiencies hindering the availability and affordability of and accessibility to medicines; development of a forum to address system-level challenges to streamline solutions
Fragmentation and misalignment between different actors of the system	Implementing a cohesive strategy to ensure coordination across institutions and reduce fragmentation could ultimately expand access to medicines
Low use of generics when compared to originators/brands	Promoting the use of generics, when available, and more competitive markets to lower prices and increase access for vulnerable populations
Lack of data and need to improve HTA processes	Using HTA results from other countries to support decision making in countries where data is limited and HTA is still nascent
Limited transparency and lack of trust among key stakeholders	Facilitating challenging conversations that focus not only on prices but also on access, equity, and sustainability

BEST PRACTICES/LESSONS LEARNED

- Convening different actors representing manufacturers and payers in one place was key to the success of the FGs and interviews because the diversity better informed the feasibility of a mechanism like VAMOHS. Given the multiple agendas of these stakeholders, it is important to have some flexibility when these events are convened and have sufficient time to prepare for these meetings as stakeholders prefer efficient and dynamic conversations. For this reason, conducting desk reviews in advance of each meeting to discuss matters unique for each region was essential for their success.
- The stakeholder conversations made evident that there are many opportunities for a mechanism like VAMOHS to promote access to medicines and reduce the dead-weight loss in the current system of medicine access and pricing for developing countries to bring value to health systems across the globe.
- One lesson learned through the FGs is that, although focusing on the prices of medicines is relevant, when thinking about access to medicines, a mechanism is needed that also looks at inefficiencies and creates a safe space for manufacturers and buyers to discuss availability, affordability, accessibility, and value of medicines.
- There is significant interest from different stakeholders from all regions in implementing a mechanism like VAMOHS. This mechanism should be flexible, with the capacity to adapt to different contexts based on needs particular to each region and country. VAMOHS can be successful if perceived as a transparent and neutral mechanism to build strong partnerships between manufacturers and buyers. Stakeholders from all regions believe that VAMOHS has potential and expressed interest in further conversations to refine its approach and conduct pilots to explore its feasibility.

ACTIVITIES & EVENTS FOR NEXT QUARTER

The activity concluded on May 31, 2022. There are no further activities planned.

G. DRC EBOLA POST-MORTEM SURVEILLANCE (DEPS)

OVERVIEW

The first case under the DRC's 13th EVD outbreak was confirmed on October 8, 2021, in the Beni HZ of North Kivu province. There were eight confirmed cases and three possible cases across the three HAs of Bundji, Butsili, and Kanzulinzuli. After the declared end of the outbreak on December 16, 2021, a 90-day period of heightened surveillance began. After receiving the task order for the DEPS activity on December 16, 2021, MTaPS partner FHI 360 quickly started RDT activities during the 90-day surveillance period.

Before activating the RDT teams, MTaPS partner FHI 360 began participating in coordination meetings with stakeholders in DRC to harmonize the intervention approach and the HAs to be covered. After discussing the selection criteria, BCZS collaborated with the *Infirmier Titulair*e to select RDT team members. RDT teams training included receiving and analyzing alerts from the community, conducting RDT and later PCR testing on bodies, confirming negativity, and releasing the corpse to the family as well as communication with/sensitization of family members.

In partnership with BCZS, INRB, U.S. CDC, IFRC, and Information Management and Mine Action Programs (iMMAP), MTaPS partner FHI 360 started implementing surveillance activities—including supporting 12 RDT teams and radio programming facilitated by community leaders. RDT teams covered 12 HAs of the Beni HZ, including the 3 HAs with confirmed and probable cases, and the following 9 bordering HAs: Ngongolio, Tamende, Mabakanga, Kasabinyole, Malepe, Kasanga, Ngilinga, Mukulyia, and Mabolio. Radio programming covered the entire Beni HZ with a total of 19 HAs and other nearby HZs.[8]

CUMULATIVE PERFORMANCE TO DATE

As a result of MTaPS' strategy of composing RDT teams with community members and local health workers, the RDT teams faced only one instance of community resistance, which the respective team swiftly resolved. The case occurred in the Butsili HA in mid-January when motorcycle taximen resisted an RDT team attempting to perform an RDT on a deceased taximan. While the taximen did not want the team to perform the RDT, a community member on the team negotiated with them, leading them to accept the collection of a sample.

In contrast to past epidemics, communities also demonstrated strong involvement in post-mortem surveillance activities. Thanks to the community-led radio programming, community members began alerting the RDT teams and the radio program facilitators of deaths in their communities. For example, in Ngilinga on January 20, 2022, a radio program listener alerted one of the leaders facilitating the show to a case of community death. Also, in the Ngongolio HA—one of the most resistant health areas during the EVD outbreak—as well as the Kasabinyole, Kanzulinzuli, and Kasanga HAs, family members and youth groups reported several cases of community deaths to the RDT teams who had been trained on the community engagement approach.

Activity stakeholders have also expressed and proved their desire to continue activity implementation following the end of DEPS. After receiving requests from the communities for the RDT radio programs to continue, the radio stations that partnered with FHI 360 (Radio Télévision Rwanzururu and Radio Télévision Kivu Amani) have continued to rebroadcast the programs. Furthermore, with the request of the community to continue post-mortem surveillance activities, BCZ and INRB announced that they

would remain available to support surveillance. Although constrained by the unavailability of RDT kits and PCR kit shortages, they have proposed to utilize the PCR tests only on validated alerts until WHO provides additional kits. Since two members of each RDT team were from the health centers, they will conduct tests at the facility level and mobilize to respond to the validated alerts at the community level.

QUARTER 3 ACHIEVMENTS & RESULTS

MTaPS partner FHI 360's project liaison hands over post-mortem activities to the Bundji, Mukulyia, and Ngongolio HAs

Before activity implementation ended on March 26, MTaPS partner FHI 360 informed project stakeholders—including the DPS, BCZ, INRB, *Infirmiers Titulaires*, community radios, and RDT team members—of the upcoming closeout during the coordination and steering committee meetings and via written communication. In addition, MTaPS partner FHI 360 organized 4 handover sessions—with each session gathering community leaders and RDT team members from 3 HAs—to reach individuals from all 12 supported HAs.

One hundred and twenty-three people (35 female, 88 male) from different parts of the communities participated, including neighborhood chiefs, women leaders, youth leaders, religious leaders, HCPs, and BCZS. Participants expressed satisfaction with the support they had received during the DEPS project, while promising to continue to collaborate with HCPs to ensure that the activities continue. Furthermore, they formulated the following recommendations:

- MTaPS should continue to provide materials (RDT kits and PPE) to ensure the sustainability of activities
- RDT teams should remain available to serve their communities
- MTaPS should organize an RDT training for additional community members so that RDT team members can rotate, therefore reducing the workload for existing team members
- The Government of the DRC should implement a policy focused on the sustainability of RDT activities throughout the Beni HZ
- The Beni HZ should acquire hearses to transport corpses at the community level to the morgues to prevent unnecessary handling of cadavers by individuals

Following the presentation on psychosocial health by MTaPS partner FHI 360, some RDT team members shared some of the negative side effects they experienced during the RDT activities, including lack of appetite, refusal to eat meat after frequently seeing dead bodies, a decrease in libido, and persistent fear. One team member also reported having nightmares regularly and having displayed high levels of aggression while handling the corpses. The BCZ referred these individuals to a psychiatric center (CEPIMA) or the general referral hospital in Beni.

BEST PRACTICES & LESSONS LEARNED

- MTaPS partner FHI 360 held a lessons learned workshop that gathered BCZS, local health and RDT supervisors, and other RDT IPs, including IFRC and the CDC. Some strong points identified were the level of involvement of the HZ to promote activity sustainability; organization of community

dialogue sessions that better involved community members in activities; and effective joint supervision involving all partners.

- As for recommendations, the participants suggested that the RDT teams be activated as soon as the 90-day period of heightened surveillance begins and that RDT kits be made available for the entirety of the project implementation period.

ACTIVITIES & EVENTS FOR NEXT QUARTER

This activity ended in April 2022. No more activities are planned.

H. 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. In PY2, gender working group (GWG) helped to connect those across the 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 PY2 and PY3, the working group in PY4 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: 1) 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 2) number of gender-related technical guidance documents and other capacity building products produced by MTaPS. These gender-specific indicators will be used going forward and assist the entire program in measuring progress against these two broad indicators.

Three key capacity building documents and presentations stand out as important to highlight as key successes in PY2. The first, "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 LMICs. Another key capacity building document, "MTaPS Gender Guide for Work Planning," was developed by the MTaPS gender advisor with inputs from the SMT and disseminated to all program staff to assist their gender inclusion activities in third-year work plans. Lastly was a presentation, "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. The 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 these key activities built on and increased MTaPS' gender capacity and learning within the program as well as integrated MTaPS' gender indicators.

The PY3 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 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 PY2) for PY3 work planning. The survey, developed and led by MTaPS' partner Overseas Strategic Consulting with input from the SMT, was distributed to SMT members. In brief, only one-third of respondents agreed that they had a "good" understanding of sex and gender considerations in PSS. Important findings of the survey included feedback 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 PY3 work plans. And, if gender activities were added, they focused largely on "equal" as opposed to "equitable" participation, the latter of which is a more advanced concept. Respondents also did not consider important sex/gender pharmacodynamics, especially within the GHSA portfolios. A review of approved PY3 work plans found that 75% did not include any sex/gender activities, and there were many missed opportunities for sex/gender activities in PY3 work plans. 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.

The monthly GWG was re-established. However, given the lack of gender activities in PY3 work plans, the group opted to meet only when there are pressing issues that need review, given other time commitments of group members.

Based on survey results—and to address MTaPS staff's lack of understanding of how sex and gender need to be integrated into PSS—the gender advisor started an informational series called the "Gender Gist" blog, geared for field practitioners on sex and gender considerations important to PSS that are tied to MTaPS activities. The Gist includes useful, concise, and practical information for different topics in PSS. These blogs were among the top pages viewed on the MTaPS website. Published blogs in PY3 include:

- 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, presentations to the COR and MTaPS staff in PY3 included "The Importance of Being Gender-Responsive for COVID-19 Vaccination Introduction: Afghanistan Case Study"; "PSS in Practice: USAID MTaPS Knowledge Exchange Series"; and "Sex, Gender, and PSS: A Focus on Antimicrobial Stewardship and Sex and Gender Implications in Pharmaceutical Service Strengthening." The gender advisor also developed a presentation for USAID missions to understand how sex and gender are important in PSS. To add data to the presentation, she initiated a desk review of PY4 trainings to assess whether MTaPS included sex and gender concepts and whether these trainings need to be updated to include these concepts in PSS. It was determined that none of the trainings to be updated in PY4 included sex and gender concepts when PSS was covered.

Throughout PY3, 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 program 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," one-on-one meetings were conducted with country teams to educate, mentor, and assist in developing sex and gender activities for PY4. Finally, technical reviews of the PY4 work plans for MTaPS countries were conducted and the gender advisor finalized sex and gender indicators in MERL plans with careful review to ensure that sex and gender differences were noted and accounted for in relevant indicators.

The **PY4 focus** for the core-funded gender portfolio, in addition to numerous country-specific sex and gender activities, is continuing the momentum of bringing sex and gender to the forefront of MTaPS through scholarly activity, education, and mentorship. PY4 will focus on starting the development of knowledge products that formalize practical ways to integrate sex and gender in PSS, creating a methodology for case studies in PY5; academic products such as journal articles to address the need for standardized PSS tools to incorporate sex-disaggregated data; technical guidance on incorporating sex-disaggregated data and gender considerations as part of AMS interventions presentations to staff and partners; and Gender Gist blogs relevant to current activities. There will be a particular focus on the review and development of eLearning and IEC materials in addition to the development of an adapted gender analysis for PSS.

QUARTER 3 ACHIEVEMENTS & RESULTS

This quarter focused on reviewing eLearning products and posters for Bangladesh and creating IEC materials for Uganda to introduce sex and gender concepts during AMS training. These materials are to be developed into posters and pocket guides to help practitioners understand how sex and gender impact PV, with a focus on surgical prophylaxis, urinary tract, and upper respiratory infections. In the Philippines, the gender advisor completed the eLearning requirements for eLearning modules developed to introduce sex and gender concepts in PSS and in supply chain management, finalized the scripts and presentations, and presented the finalized modules in a webinar to the DOH for feedback. The webinar was attended by approximately 400 participants. A third eLearning module, developed by DOH, was reviewed and edited by the gender advisor in coordination with MTaPS Philippines. The gender advisor also presented at an interactive knowledge exchange, "Understanding the Role of Sex and Gender in Health and PSS," to MSH and MTaPS participants during this reporting period.

A panel presentation in support of the GHSA action package on AMR, "GHSA-Supported AMR Investments: Results and Lessons Learned in Strengthening Infection Prevention and Control (IPC); Enhancing Inclusion; and Enabling Rapid COVID-19 Response and Future Pandemic Preparedness," was presented at the 2022 GHSC in June/July 2022 in Singapore. The panel discussed MTaPS' successful collaboration with national and facility counterparts to implement IPC interventions, including performance assessments, health worker training, and mentorship and the importance of gender- and sex-responsive approaches for improving IPC capacity to decrease AMR. The gender advisor reviewed work plans (Nepal and Indonesia) and participated in biweekly staff meetings, the quarterly expanded COR and technical meetings, and work planning for PY5 to ensure sex and gender are integrated into activities. Quarterly gender reports were written for the second and third quarterly reports. Lastly, a technical commentary paper on the need for sex-disaggregated data and recommendations for improvement in WHO Point Prevalence Survey methodology was drafted for review and possible submission to a journal.

BEST PRACTICES/LESSONS LEARNED

Even with presentations and other academic writings, one-on-one mentoring with country teams appears to be the most effective means for getting staff to fully understand the importance of sex and gender integration into PSS activities. This has led to increases in tasks for the gender advisor and direct engagement in work planning for PY5. Sex-disaggregated data throughout the program is lacking in reporting and tools. Although attempts were made to get sex-disaggregated data across all activities, this remains a challenge as there is still a misunderstanding that "gender" (cis, trans, and non-binary individuals) is not "sex" (male/female biological determination). Gender and sex continue to be used interchangeably and more effort will be required to ensure the distinction is understood.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Gender Gist blog – GHSC summary from panel presentation	July 2022
Attend staff, quarterly, and/or technical meetings	July-September 2022
Conversion of eLearning PPTs (Philippines) to eLearning videos	September 2022
Submission of the technical commentary paper on the need for sex-disaggregated data and recommendations for improvement in WHO Point Prevalence Survey methodology to a journal for publication	September 2022
Updated training materials and IEC materials for each country: Bangladesh (completed), Jordan, and the Philippines	September 2022
Written recommendations to incorporate sex/gender considerations tailored to the various MIS in the Philippines and Bangladesh	September 2022
Conduct supply chain assessment to better understand gaps and explore intervention options, including gender considerations (Jordan)	September 2022
Develop case study task order for PY5 assessment of sex/gender PSS successes and gender activities for PY5	September 2022

4. PROGRESS BY COUNTRY

A. BANGLADESH

FIELD SUPPORT

OVERVIEW

The overall goal of the USAID 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 in using evidence-based recommendations and tested approaches to strengthen the pharmaceutical system. MTaPS is providing technical assistance (TA) to MOHFW to build institutionalized and sustainable capacity, as it is critical to achieving UHC, the SDGs, and country self-reliance.

CUMULATIVE PERFORMANCE TO DATE

With MTaPS' facilitation, MOHFW and key directorates developed a strategic plan for coordinated procurement. The plan includes mapping MOHFW's procurement entities and their practices and identifying actions with timelines and periodic reviews. MTaPS reactivated and strengthened the Procurement and Logistics Management Cell functions in two divisions of MOHFW (Health Services Division and Medical Education and Family Welfare Division) through advocacy with their staff and reviewed the TOR to ensure effective and efficient procurement systems. MTaPS also developed the TOE up to tertiary-level health facilities and updated the MSRs list with specifications. MTaPS has also been assisting the MSR List Updating Committee, constituted by MOHFW, to assign standard prices to the updated list. MTaPS has initiated a process for oversight bodies to monitor the performance of procuring entities.

Following MTaPS' recommendations, the DGFP allocated adequate funds in their OPs for maintaining and managing their systems for sustainability. MTaPS provided TA to DGFP in reviewing and managing the stock status of reproductive health and FP commodities at various levels of the supply chain, resulting in maintaining stock-out rates below 1% at service delivery points. These efforts helped DGFP reduce unnecessary procurement of FP injectable commodities by 20 million units, saving USD 9.6 million during FY 2021-22. The results were achieved by utilizing data generated from the MTaPS-developed DGFP eLMIS. MTaPS also provided TA to DGFP to organize training on supply chain management and troubleshooting for 299 sub-district-level managers in 9 batches. Additionally, MTaPS introduced the eAMS in all 62 DHs across the country. Approximately 60% of them completed data entry of assets into the system for near real-time tracking of assets, timely maintenance, and effective procurement.

MTaPS successfully established e-TB Manager as the official national digital platform to capture and manage individual TB patient information, enabling the NTP to accurately record and report quality TB data. The system has been rolled out nationally to all 868 sites. e-TB Manager will be deployed

nationwide in a phased manner. The workload for end users has been reduced and data has been made available in real-time, allowing prompt monitoring and management. e-TB Manager is interoperable with the Janao app (janaotb.com) to capture information from TB patients treated at private centers (by graduate practitioners), thereby increasing case notifications and data visibility. The system server has been transferred from MSH to the MIS, DGHS, and managed by local developers. The system has been enhanced for electronic reporting of aDSM in all ten DR-TB sites to allow data analysis and prompt actions by the DGDA. In collaboration with NTP, MTaPS completed a peripheral TB storage system assessment where options for storage integration were analyzed, and a phased transition plan was proposed. The phases were set based on the preparedness scores of each facility at the peripheral level. The plan includes a timeline for transition of storage from NGO sites to the government to ensure government leadership and sustainability of the storage process.

In PY1 and PY2, MTaPS assisted DGDA in developing an inspection strategy for model pharmacies and model medicine shops. In PY3, MTaPS facilitated DGDA's scaling up of PV to 30+ government and private health facilities by providing training and creating PV sections at all the facilities to continue PV activities. Also, in PY3, MTaPS led the development of DGDA's action plan based on a five-year strategic plan and assisted in establishing a monitoring mechanism for implementing the institutional development plan. An electronic inspection and licensing system for pharmacies has been implemented with MTaPS' support as well. In the latest WHO GBT assessment, DGDA achieved the highest score in PV, an MTaPS-supported function. To ensure the safety of medicines, actions were taken on a range of products based on recommendations generated in PY 4. An independent and functional QMS was established with MTaPS support.

Guided by the objectives of the GOB's 20-year health care financing strategy, MTaPS worked with MOHFW and other stakeholders to explore options for supporting implementation of the pharmaceutical-related components of the strategy, including expenditure tracking. This activity was undertaken with MTaPS' TA partner, Results for Development, which delivered a situational analysis report.

QUARTER 3 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

With MTaPS assistance, DGHS successfully motivated a change in the approval process for the annual procurement plan (APP) and the tender evaluation report (TER). For a long time, DGHS procuring entities (PEs) sent the APP to MOHFW and the TER to the DGHS director general, irrespective of the financial authority delegated to the entity. The corrective actions taken by the government (following MTaPS assistance) have reduced the workload of the oversight bodies and the lead time of the procurement process by 6-10 weeks for each package, thereby improving the timely availability of goods.

DGFP organized eight TOT sessions on basic logistics management for district- and subdistrict-level managers, who will conduct cascade training at the field level for field workers. MTaPS provided TA in developing training materials and facilitating technical sessions. A total of 369 participants (64 female, 305 male) successfully completed the training on FP commodities and started a cascade in selected districts for field workers. Additionally, MTaPS organized a UAT for officials of the CMSD on the customized eLMIS to cover all commodities under DGHS. MTaPS incorporated feedback from the UAT,

and CMSD started testing the system in two components (sub-stores) out of 11 sub-stores of the CMSD. The system will help them better manage their logistics functions.

OBJECTIVE 2: PHARMACEUTICAL REGULATORY SYSTEMS STRENGTHENED

Key achievements in the national regulatory system include the development of key SOPs for QMS and mock inspection, including internal audits. For marketing authorization, several public viewing options were created, i.e., vaccines and biosimilar information, no objection certificates, alert search, and variation history in accordance with CAPA requirements. The Human Resource Information System is another tool that MTaPS supported in collaboration with WHO. Key performances under the PV function include the final draft of GVP guidelines, a PV awareness leaflet, PV newsletters, and procedures for an active and proactive vigilance system, including enforcement mechanism. In addition, 506 AEs were assessed during this quarter for causality. Furthermore, a signal was detected with methotrexate causing muscle spasms and muscle cramp reactions, and a regulatory recommendation was issued to change the patient information leaflet.

Capacity was built in PV for over 700 health care professionals at different levels from 5 divisions. DGDA and MTaPS visited NTP to oversee aDSM activities.

OBJECTIVE 3: SYSTEMS FOR EVIDENCE-BASED DECISION MAKING INSTITUTIONALIZED

In this quarter, MTaPS assisted the NTP facilitate six batches of training on TB logistics management and eLMIS for TB commodities in Mymensingh Division. A total of 127 (17 female, 110 male) HCWs from the upazila health complexes received training at two-day workshops. The training will enhance participants' capacity in TB logistics and storage management at the peripheral level. It is also expected that the eLMIS for TB commodities will ensure end-to-end TB data visibility, including transaction information, to enable more informed decisions. Greater data visibility will also improve the availability and uninterrupted supply of TB commodities, preventing supply chain stock-outs, overstock, and expiry/wastage of TB commodities.

MTaPS assisted in the phased implementation of paperless reporting and started drafting a plan to transition e-TB Manager. The transition could potentially leverage funds for e-TB Manager's long-term sustainability. MTaPS shared TB-related activities with the visiting Global Fund team in the presence of USAID and its partners, including recommendations from the peripheral storage assessment facilitated by MTaPS and the transitioning of e-TB Manager. MTaPS also attended the NTP's partners' coordination meeting and the M&E Working Group Meeting.

OBJECTIVE 4: PHARMACEUTICAL SERVICES THAT PROMOTE APPROPRIATE MEDICINE USE AND ANTIMICROBIAL RESISTANCE (AMR) CONTAINMENT (ARC) IMPROVED

No activity is planned for PY4 under this objective.

OBJECTIVE 5: PHARMACEUTICAL FINANCIAL RESOURCE ALLOCATION AND USE OPTIMIZED

MTaPS explored a possible collaboration with the HEU, WHO, and the World Bank on a disease-specific survey to track expenditures on TB, malaria, and HIV/AIDS that could potentially be conducted with Global Fund support. MTaPS discussed the methodology of the survey but ultimately decided that the collaboration was not cost effective. MTaPS plans to conduct a commodity survey in the next quarter.

BEST PRACTICES/LESSONS LEARNED

DGFP has taken ownership of capacity-building activities and plans to continue them beyond the end of MTaPS by using their own funds. DGFP has provisioned funding in their OPs to build the capacity of front-line workers on basic logistics management. DGFP also adopted MTaPS-developed training materials for their cascade training at the field level for front-line workers.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Update the Price Guide of Medical Equipment and align with the revised TOE ■ Organize at least two workshops on drafts submitted by the consultant on one-line specification for TOE and the draft TOE	September 30, 2022
Activity 1.1.2: Map the organizational and governance structure of DGHS procurement functions ■ Organize two workshops on draft questionnaire and the draft report on the procurement mapping	September 30, 2022
Activity 1.2.1: Continue to enhance the capacity of national- and sub-national-level managers to use data for decision making and compliance with monitoring the functionality of existing systems ■ Organize two divisional workshops on e-TB Manager data analysis and use	August 31, 2022
Activity 1.3.2: Strengthen the capacity of DGHS decision makers and health facility staff to use eAMS at selected districts ■ Assist MOHFW and DGHS in organizing workshops for eAMS users and conduct field visits to assist in entering asset information into the system	September 30, 2022
Activity 2.1.2: Support DGDA, in collaboration with other partners, in developing a five-year strategic plan (2022-2026) to strengthen the regulatory system ■ Conduct three workshops to develop a draft and finalize it	July 31, 2022
Activity 2.2.2: Assist DGDA in strengthening existing online ADR reporting and monitoring system ■ Conduct mapping with DGDA for the enhancement of the system as per requirements; installation and training for introduction to DGDA's server	September 30, 2022
Activity 2.2.4: Work with DGDA and other stakeholders to develop guidelines on GVP and update the national PV system guideline per WHO GBT requirements (refer to VL01.02) to increase score to maturity level 3 ■ Finalize workshop of GVP guidelines; 2 workshops for final draft and national PV guidelines	August 31, 2022
Activity 3.1.1: Enhance and scale up eLMIS previously developed for TB commodities in DGHS ■ Conduct training of the DGHS eLMIS (CMSD part) for other components of CMSD	September 30, 2022
Activity 3.1.2: Provide TA to DGFP in transitioning the existing inventory tools from offline to online ■ Hold an orientation on the changes that are coming in online version of eLMIS for DGFP officials	September 30, 2022
Activity 3.1.3: Customize and implement Pharmadex version 2 for vaccine registration in DGDA ■ Orient DGDA to workflows	September 30, 2022
Activity 3.2.2: In collaboration with partners, transition e-TB Manager to NTP ■ Hold a workshop to finalize the transition plan	September 30, 2022

Table 3. Quarter 3, FY22, Activity Progress, Bangladesh – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Update the Price Guide of Medical Equipment and align with the revised TOE. **Activity Description:** Price guide was developed by MOHFW with SIAPS assistance, and the TOE was updated with MTaPS assistance in FY20. Now, the price guide will be updated in line with the updated TOE.	Obj 1, SO 1.1		N/A	Consultant hiring process completed and work on the price guide has started.
Activity 1.1.2: Map the organizational and governance structure of DGHS procurement functions. **Activity Description**: The present organizational and governance structure of DGHS will be reviewed in the context of a diversified procurement function, and an appropriate structure will be suggested.	Obj 1, SO 1.1		N/A	Consultant hiring process completed and work on the mapping has started.
Activity 1.2.1: Continue to enhance the capacity of national- and sub-national-level managers to use data for decision making and compliance with monitoring the functionality of existing systems. **Activity Description:** Build capacity of district and sub-district health and FP managers on data for decision making.	Obj 1, SO 1.2		N/A	During this quarter, DGFP organized three more batches of three-day training, where a half-day session on data for decision making was held. MTaPS facilitated the technical discussion on importance and use of data. A total of 93 participants (21 women and 72 men) attended these events.
Activity 1.2.2: Assist DGFP in developing a mechanism for the service and logistics data validation process. **Activity Description:** Integrate two systems (eLMIS and eMIS) to validate the rationality between service and logistics data.	Obj 1, SO 1.2		N/A	Work in progress
Activity 1.3.1: Institutionalize eLearning courses of the relevant MOHFW directorates. **Activity Description:** Inform the relevant government directorates through a consultative workshop about the objectives, benefits, and features of the eLearning courses, and advocate the respective officials at all levels to attend the courses.	Obj 1, SO 1.3		N/A	After consultation and review with USAID Bangladesh and the MTaPS capacity development expert, it has been decided that the English content of each eLearning course will be reviewed again by the expert. The country team will then develop a Bangla version of the courses in-country.
Activity 1.3.2: Strengthen the capacity of DGHS decision makers and health facility staff to use eAMS at selected districts. **Activity Description:** Capacitate the selected DHs on efficient management of the eAMS system.	Obj 1, SO 1.3		N/A	Implementation of the eAMS was a MOHFW priority. Accordingly, the MTaPS team visited 40 DHs and submitted a field-finding report with MOHFW and shared a final list of 33 DHs with the line director (HSM). Two batches of refresher training were organized for these 33 selected hospitals through collaboration with the HSM OP to

				complete asset data entry, which will ultimately contribute to achieving DLI of the MOHFW.
Activity 2.1.1: Continue to provide TA in selected regulatory functions, including QMS of the national regulatory system, and PV to develop and implement the CAPA plan and establish performance and enforcement mechanisms per the WHO external assessment report for DGDA to increase the score on WHO GBT. **Activity Description:** Support DGDA in addressing the observations of the WHO external assessment held in 2021 as per CAPA plan.	Obj 2, SO 2.1		N/A	CAPA implementation support is an ongoing process and will be continued in collaboration with PQM+ and WHO until the formal assessment of WHO, planned for mid-July 2022. Performance indicators and enforcement mechanism were established. A mock internal audit was supported.
Activity 2.1.2: Support DGDA, in collaboration with other partners, in developing a five-year strategic plan (2022-2026) to strengthen the regulatory system (refer to RS03). **Activity Description:** Incorporate new priorities of DGDA into the strategy. A consultant is to be on board.	Obj 2, SO 2.1		N/A	A working committee has been formed for monitoring, evaluation, and development of a five-year strategic plan. Two workshops were supported by MTaPS for updating the plan for the next five years.
Activity 2.1.3: Support DGDA in implementing a QMS jointly with PQM+ to achieve ISO 9001:2015 certification (refer to RS05). **Activity Description:** Support for QMS components.	Obj 2, SO 2.1		N/A	A separate, independent QMS department has been established with TOR and included in the organizational chart. Procedures and training plans were developed and are being executed. An internal audit was conducted with a mock inspection. The QMS implementation roadmap was supported as well.
Activity 2.2.1: Continue to provide TA for ongoing monitoring of ADRs, including introducing aDSM report evaluation to contribute to evidence-based regulatory decision making to ensure medical safety (refer to VL04.01). **Activity Description:** Assess AEs, including aDSM reports.	Obj 2, SO 2.2		N/A	ADR/AEFI and aDSM evaluation support through ADRM cell, TSC, and ADRAC are ongoing. Many of the regulatory recommendations were generated and actions taken for ensuring medicines safety.
Activity 2.2.2: Assist DGDA in strengthening existing online ADR reporting and monitoring system (refer to VL04.01 and VL06). **Activity Description:** Finalize the draft SOW and engage an IT firm/consultant for system enhancement.	Obj 2, SO 2.2		N/A	A local IT farm is onboard. PViMS software has been installed locally for suitability checking prior to development/configuration. A process mapping is underway for optimizing the system.
Activity 2.2.3: Collaborate with NTP, WHO, DGDA, ACTB, and other stakeholders to expand functional electronic reporting system on aDSM in all DR-TB treatment facilities (eight hospitals) (refer to VL04.04). **Activity Description:** Ensure aDSM reporting through e-TB Manager from DR-TB sites, in collaboration with partners.	Obj 2, SO 2.2		N/A	aDSM electronic reporting system is developed and introduced.

Activity 2.2.4: Work with DGDA and other stakeholders to develop guidelines on GVP and update the national PV system guideline per WHO GBT requirements (refer to VL01.02) to increase score to maturity level 3. **Activity Description:** Form a working committee, arrange workshops, and prepare drafts.	Obj 2, SO 2.2		N/A	The final GVP guidelines draft is ready. Discussions with WHO, BAPI, DGDA, and pharma companies took place to address issues. Prior to that, a public consultation was done as well. National PV guidelines drafting is ongoing and requires more time to develop a final draft.
Activity 3.1.1: Enhance and scale up eLMIS previously developed for TB commodities in DGHS. **Activity Description:** DGHS eLMIS will be scaled up to hundreds of sites that provide TB services, CMSD, and two districts for other pharmaceutical items.	Obj 3, SO 3.1		N/A	UAT was conducted for the selected component of the CMSD, and piloting has begun. Six batches of training on TB logistics management and eLMIS for TB commodities were completed in Mymensingh Division.
Activity 3.1.2: Provide TA to DGFP in transitioning existing inventory tools from offline to online. **Activity Description:** DGFP's inventory management tools will be converted online with updated features.	Obj 3, SO 3.1		N/A	IT vendors have started the backend changes to develop the online version of the inventory management system.
Activity 3.1.3: Customize and implement Pharmadex version 2 for vaccine registration in DGDA. **Activity Description:** Cover the registration of vaccines as agreed by DGDA. Pharmadex version 2 is expected to be user-friendly and customizable to accommodate new process flows.	Obj 3, SO 3.1		N/A	Pharmadex version 2 has been deployed in DGDA's server, and a draft workflow for market authorization has been designed.
Activity 3.2.1: Enhance and maintain e-TB Manager through the national technology partner. **Activity Description:** Knowledge of and skills for using and maintaining enhanced e-TB Manager will be transferred to the national technology partner from the international consultant.	Obj 3, SO 3.2		N/A	The local technology partner has been working on the system enhancement and general troubleshooting based on user feedback as well as NTP requirements.
Activity 3.2.2: In collaboration with partners, transition e-TB Manager to NTP. **Activity Description:** Plan for transitioning e-TB Manager from MTaPS to NTP will be developed, focusing on the sustainability of the system.	Obj 3, SO 3.2		N/A	A consultant is working with NTP as well as the e-TB Manager focal point to prepare a transition plan.
Activity 3.2.3: Collaborate with development partners, donors, and DGHS to update priority MNCH life-saving commodities and incorporate DHIS 2 as well as SCMP. **Activity Description:** Based on the last technical working group, MTaPS is committed to updating DHIS 2-based logistics reporting item list based on the revised and updated MNCH priority list. The existing DHIS 2-based logistics reporting will further be scaled	Obj 3, SO 3.2		N/A	System readiness for scaling up by MaMoni MNCSP is ongoing.

up by partners (especially by MaMoni MNCSP, UNFPA) with TA from MTaPS.				
Activity 5.1.1: Continue to support HEU in pharmaceutical expenditure tracking for selected commodities other than MNCH. **Activity Description:** MTaPS will collaborate with HEU and WHO to continue the exercise of pharmaceutical expenditure tracking for commodities other than MNCH.	Obj 5, SO 5.1		N/A	Stakeholders and the budget for this activity have been discussed and decided. Andre Zida will be traveling to BD mid-July to organize an OHT training (Asia Bureau activity) combined with PE tracking related meetings with stakeholders. The team is preparing for the training.

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

Under objective 4, MTaPS Bangladesh supports ARC to implement the AMR action package. The GHSA-related goal of MTaPS Bangladesh is to improve ARC by building the capacity of in-country stakeholders and institutions in three result areas: MSC on AMR, IPC, and using AMS to help the country progress to higher JEE levels.

CUMULATIVE PERFORMANCE TO DATE

Before the inception of GHSA funding in FY20, MTaPS assistance in ARC was focused on MSC; the major achievement was conducting a mapping exercise under the leadership of Communicable Disease Control (CDC)/DGHS to assess the implementation status of the NAP-AMR to 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, finalizing the national assessment of IPC, and extending AMR activities to the facility level. In collaboration with CDC, MTaPS updated the National AMR Strategy, developed STGs, and continued TA to the national MSC mechanism (holding the NTC meeting), along with strengthening multidisciplinary implementation of IPC and AMS at four facilities. Subsequently, IPC and AMS activities have been expanded to six additional facilities. MTaPS has so far supported the government and stakeholders to complete 14 (23%) out of the 62 global benchmark actions required to attain sustainable capacity level in the MSC, IPC, and AMS components of the AMR technical area under the GHSA mandate.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

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

- MTaPS received meaningful feedback on the draft AMS guidelines and costed OP for the NAP-ARC during two core working group meetings. The feedback was incorporated as part of finalizing the two documents.

RESULT AREA 2: IPC

Activity 2.2.1: Strengthen the technical and managerial capacity of IPC committees and providers to implement updated IPC standards based on revised national guidelines.

- MTaPS facilitated training on IPC in collaboration with a CDC DGHS official. As a result, a list of master trainers was established to form the pool of IPC trainers in Cumilla Medical College and Hospital, Munshiganj District Hospital, Nilphamari District Hospital, and Taraganj Upazilla Health Complex. These trainers then organized training for members of the IPC teams (doctors, nurses and support staff, cleaners, etc.). A total of 114 participants (47 female, 67 male) from the facilities were trained. These activities are expected to improve IPC interventions at the selected facilities.

IPC training conducted in Taraganj Upazilla Health Complex, Rangpur on June 2, 2022. Photo Credit: Shahida Akter, Technical Advisor, USAID MTaPS

Activity 2.5.1: Continue to strengthen IPC activities in the current four participating facilities; scale up similar initiatives to six additional facilities.

- The IPCAF assessment to measure the baseline status in the six new facilities was successfully completed in collaboration with CDC and facilities' IPC committees. Results will be used to develop action plans to address gaps and deploy resources to improve institutional and individual IPC capacity. Similar activities were previously conducted in the initial four facilities, leading to substantial improvements. For instance, Munshiganj District Hospital and Cumilla Medical College Hospital staff are effectively practicing IPC and the committees are regularly conducting monthly meetings, reviewing progress and challenges, and taking decisions to mitigate them.

IPC and AMS baseline assessment in Jhalokati Sadar Hospital, Jhalokati on June 13, 2022. Photo Credit: Tonusree Sikder, Senior Staff Nurse, Jhalokathi Sadar Hospital.

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

Activity 3.1.1: Strengthen AMS governance structures at the national level.

- MTaPS successfully assessed AMS policies, practices, and regulations in human and animal health sectors by using MTaPS standardized tools customized from the WHO practical toolkit, including a questionnaire/checklist and methodologies. The assessment report will help MOHWF develop an AMS action plan and organize resources for interventions to build and strengthen the AMS program at the facility and national levels through MSC.

Activity 3.5.1: Improve AMS practices and services at the facility level.

- Hospital AMS/CQI implementation plans in two participating hospitals (Munshiganj District Hospital and Cumilla Medical College Hospital) were developed with support from MTaPS, and activities were regularly reviewed by the AMS committees. Based on their periodic review, each facility-based committee decided to meet local needs, which include monitoring a course of antibiotics, controlling inadequate or overuse of antibiotics, applying the AWaRe classification, and reviewing local protocols, cleanliness, and antibiogram/drug susceptibility testing.

BEST PRACTICES/LESSONS LEARNED

- Continuation of core WG meetings is important because they enable most stakeholders to actively participate and provide technical and programmatic inputs to national documents. These meetings have been funded by the government with MTaPS co-facilitation, demonstrating the sustainability of the process.
- Ongoing government engagement at the national and facility levels strengthens IPC and AMS activities in the MTaPS target facilities and other government and private health facilities.
- Authorities at MTaPS-supported facilities are listing their requirements/resources for the smooth functioning of AMS based on locally identified gaps, such as AMS training, STGs, availability of the STG app, and development of a local AMS protocol. These actions demonstrate local leadership at the facility level in AMS.
- Private facilities are cooperating by adopting GHSA-related activities. This indicates the value of the approaches, and the urgency and need in both government and the private sector to improve AMS programming and practices.

ACTIVITIES & 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 (Y4 activities) ■ Workshop will be organized to finalize the costed OP for the NAP-AMR for 2021-2026	July 31, 2022
Activity 2.2.1: Strengthen the technical and managerial capacity of IPC committees and providers to implement the updated IPC standards based on revised national IPC guidelines (version 3). (Y4 activities) ■ IPC training will be conducted in six new MTaPS-supported facilities.	September 30, 2022
Activity 2.5.1: Continue to strengthen IPC activities in the four current participating facilities, scale up similar initiatives to six additional facilities (Y4 activities) ■ IPC & AMS assessment report of six new facilities will be finalized.	September 30, 2022

A***ctivity 2.5.1:*** Strengthen IPC activities in the participating facilities representing different levels of care (Y2 activities) ■ A workshop will be organized to share the IPC & AMS assessment lessons learned in target facilities.	August 31, 2022
Activity 3.5.1: Strengthen AMS practices in participating facilities representing different levels of care (Y2 activities) ■ The hospital AMS/CQI implementation plan is under editorial review.	August 31, 2022
A***ctivity 3.5.1:*** Strengthen AMS practices in participating facilities representing different levels of care (Y2 activities) ■ CQI report of Munshiganj Sadar Hospital will be prepared & shared.	September 30, 2022
Activity 3.5.1: Strengthen AMS practices in participating facilities representing different levels of care (Y2 activities) ■ Hospital/AMS CQI report of Munshiganh will be prepared & shared.	September 30, 2022
Activity 3.5.1: Strengthen AMS practices in participating facilities representing different levels of care (Y3 activities) ■ A workshop will be organized to disseminate the STG app.	September 30, 2022
Activity 3.5.1: Strengthen AMS practices in participating facilities representing different levels of care (Y3 activities) ■ Report on a TOT carried out using the newly developed STGs & its app is under editorial board review.	July 31, 2022

Table 4. Quarter 3, FY22, Activity Progress, Bangladesh – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Continue to support governance, functionality, and implementation capacity of national MSC mechanisms. **Activity Description:** MTaPS will develop a costed OP for the new NAP-AMR 2021-2026. Update the current M&E framework to align with the new NAP-AMR 2021-2026.	N/A	1.1		The costed OP for the new NAP-AMR 2021-26 has been drafted.
Activity 2.2.1: Strengthen the technical and managerial capacity of IPC committees and providers to implement updated IPC standards based on revised national guidelines. **Activity Description:** IPC training materials developed for refresher training. Develop and deploy e-learning modules.	N/A	2.2		The IPC training has been conducted in the previous four MTaPS-supported facilities (Cumilla Medical College & Hospital, Munshiganj District Hospital, Nilphamari District Hospital, & Taraganj Upazilla Health Complex).
Activity 2.5.1: Continue to strengthen IPC activities in the current four participating facilities; scale up similar initiatives to six additional facilities. **Activity Description:** Conduct IPC training in MTaPS-supported health facilities.	N/A	2.5		IPC & AMS assessments completed in the six new MTaPS-supported facilities: Impulse Hospital (Private), Sher-E-Bangla Medical College & Hospital, Barishal, Jhalokathi District Hospital, Lohagara Upazilla Health Complex, Narail, Jhenaidah District Hospital and Narail District Hospital.
Activity 3.1.1: Strengthen AMS governance structures at the national level. **Activity Description:** Conduct baseline assessment of stewardship practices. Strengthen the AMS program through policy and guidelines development.	N/A	3.3		The national MSC AMS committee TOR was drafted and submitted to CDC, DGHS. Two consultants are engaged to assist the government.
Activity 3.5.1: Improve AMS practices and services at the facility level. **Activity Description:** Assess AMS practices in selected health facilities.	N/A	3.5		Several inputs were received by the engaged consultant and incorporated accordingly.

B. BURKINA FASO

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS in Burkina Faso is to support AMR containment by slowing the emergence of resistant pathogens and preventing the spread of resistant infections. This will be attained by building the capacity of in-country stakeholders through a system strengthening approach. These objectives are directly aligned with the MTaPS GHSA portfolio-level objectives. IPC and AMS are two of the five strategic objectives in the 2015 WHO GAP on AMR, which also strongly emphasizes MSC. MTaPS is providing technical support to consolidate MSC for AMR and optimize the use of antimicrobial medicines.

MTaPS is assisting Burkina Faso in making progress toward the next level in JEE capacities by focusing interventions on the MSC and AMS components of AMR in both the human and animal sectors. MTaPS is providing comprehensive technical assistance for sustained improvements in health system performance to advance USAID and Burkina Faso's goal: to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections.

A clear strategy is in place to ensure the availability of, access to, and appropriate use of quality-assured antimicrobials in the human and animal health sectors. MTaPS must emphasize the structures that ensure 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. Policies must be developed to address prescription practices that do not always follow national or international guidelines for using antibiotics.

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 HFs and capacitating those that already exist to provide supportive supervision in their facilities to promote AMS practices. In FY22, in addition to activities to strengthen facility-level DTCs, MTaPS is supporting the TS of the OHP and the AMR-TTC to strengthen governance and effective MSC on AMR and to optimize the use of antimicrobial medicines in the human and animal sectors. Particularly in the animal sector, MTaPS will support the DGSV to develop and validate a draft ministerial order regulating AMU in the animal sector based on the developed AMS guidelines.

CUMULATIVE PERFORMANCE TO DATE

MTaPS is supporting the operationalization of the OHP in Burkina Faso. The OHP was established by the Government of Burkina Faso to implement MSC activities, including AMR as an important focus. To facilitate this, MTaPS—in collaboration with the USAID GHSC-PSM program and OHP members—drafted an inter-ministerial order establishing the OHP TS. Inter-ministerial Order No. 2020-210/MS/MINEFID/MESRSI/ MAAH/MRAH/ MEEVCC—defining the TOR, organization, composition, and functioning of the technical steering committee, TS, and OH focal points—was signed on June 30, 2020.

To operationalize the OHP, MTaPS collaborated with other OHP stakeholders to organize a governance meeting of the TTC presidents and vice presidents to provide them with the necessary orientation to enable the good governance of each of the seven TTCs. The AMR-TTC is the entry point of MTaPS into the OHP. MTaPS, in collaboration with OHP TS, reviewed and updated the inter-ministerial orders establishing the technical thematic commissions. The inter-ministerial orders are now submitted to the respective ministers for signature. MTaPS also worked with the OHP TS and the AMR-TTC to validate the list of the members of five sub-committees. Finally, in collaboration with the DGSV and other partners, MTaPS supported the development of guidelines for AMU in the animal sector and drafted the ministerial order regulating AMU for animal health.

To ensure proper AMU, MTaPS supported DGSV to develop a training package (including facilitator and participant guides, training modules, and a manual) based on the guidelines. To strengthen the capacity of service providers, MTaPS supported 3 TOT sessions for 15 veterinarians and 42 livestock technicians using the developed training package. With funding from the Ministry of Animal Resources and Fisheries, trainers from the TOT will go on to train livestock technicians at the peripheral level of the health system. The AMS guidelines will be printed and disseminated before the peripheral-level training.

Under the leadership of WHO and the Directorate General of Pharmacy, Medicines, and Laboratories, a review of Burkina Faso's EML took place in 2020. As part of the process, MTaPS provided technical assistance to ensure that antibiotics were classified according to the WHO AWaRe categorization. In FY21, MTaPS supported the National Drug Regulatory Authority (NDRA) to print and disseminate 1,500 copies of the EML, which included the AWaRe categorization of antibiotics, to assist HCPs with proper prescribing practices and safeguarding patients from harm. In FY22, MTaPS assisted the NDRA to draft the national therapeutic formulary.

Finally, MTaPS supported the *Direction de la Pharmacie Hospitalière* to establish and train DTCs in ten selected health care facilities. Each DTC developed an action plan to implement and oversee AMS interventions in its respective facility. The DTC members' situational analysis of the causes of inappropriate antibiotics use highlighted the unavailability of facility-level infectious disease STGs.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support the TS of the OHP

MTaPS reviewed and updated the inter-ministerial orders establishing four of the seven technical thematic commissions of the OHP. The inter-ministerial orders define the composition, organization, and functioning of the following thematic commissions:

- Thematic commission 2: "antimicrobial resistance"
- Thematic commission 3: "food safety"
- Thematic commission 5: "surveillance," "notification," "preparation," "vaccination," "emergency intervention," "medical means and deployment of personnel"
- Thematic commission 7: "national laboratory system," "biosecurity and biosafety"

MTaPS shared the inter-ministerial orders with the technical secretary of the OHP for finalization and submission for signature.

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

MTaPS—in collaboration with OHP TS and the AMR-TTC—organized a three-day workshop to validate the list of the members of the AMR-TTC and its five sub-committees, and to develop and budget the sub-committees' action plans. The five sub-committees are:

- Detection and surveillance
- Surveillance of antimicrobial use, vigilance, and quality
- Rational use of antimicrobials
- Regulation, communication, and sensitization
- IPC and patient safety

Fourteen participants (5 female, 9 male) from the OHP TS, the DGSV, the Directorate of Hospital Pharmacy (DPH), NDRA, and GHSC-PSM attended the workshop.

For each sub-committee, participants nominated the president, the secretary, and the members. Each sub-committee will develop its own respective action plan when the national AMR action plan is validated and adopted. During the workshop, participants discussed and validated MTaPS activities for the rest of FY22.

RESULT AREA 2: IPC (INFECTION PREVENTION AND CONTROL): N/A

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

Activity 3.2.1: Support the DGSV in developing and validating a draft ministerial order regulating AMU in the animal sector based on the developed AMS guidelines

MTaPS, in collaboration with the DGSV, organized a workshop to:

- Carry out an analysis of the existing regulatory framework on AMU in the animal sector
- Identify key articles on AMU
- Propose a draft ministerial order regulating AMU in the animal sector
- Conduct a secondary review of the guidelines for AMU in the animal sector

Seventeen participants (3 female, 14 male) from the DGSV; the legal counsel of the Ministry of Agriculture, Animal Resources and Fisheries; the Collective of Private Veterinarians (COVEP); the National Order of Veterinarians (ONV); the Village Poultry Promotion Center (CPAVI); the National School of Animal Health (ENESA); the Association of Senior Technicians and Livestock Advisors (ATSE); veterinary clinics; the Consumer Association (league); and FAO attended the workshop. Participants drafted the ministerial order regulating AMU in the animal health sector. The draft ministerial order is a key milestone and a real pathway to reduce AMU and to combat AMR. Participants also reviewed and updated the guidelines for AMU in the animal sector. The guidelines are now ready for printing.

Activity 3.2.3: Review the NTF of the national EML and other health products

MTaPS supported the NDRA to organize four series of workshops to review and update the national therapeutic formulary (NTF). The revision of the NTF aims at providing practitioners with a revised and updated tool that is in line with the 2020 NEML. The review consisted of identifying the discrepancies between the NTF 2018 (based on the 2016 NEML) and the 2020 NEML. The 2020 edition of the NEML takes into consideration the WHO AWaRe categorization of antibiotics, an exercise that MTaPS supported. The review revealed that the 2020 NEML contains 131 new medicines added to the 2016 NEML and removed 11 medicines. Following the initial review, participants—based on research, document review, and technical group work—developed 131 new product monographs and updated 179 old monographs.

For each medicine, participants worked on the:

- galenic form or presentation
- indications for use
- directions including the frequency of use, the route of administration, and the duration
- side effects
- warnings
- any documented interactions with other medicines

The draft NTF is now available for a secondary review and integration of all suggested modifications and additions. Twenty-one participants (11 physicians and 10 pharmacists) from teaching hospitals, universities, and the central level of MOH participated in the review of the NTF. Next steps include validation and adoption of the NTF. The NDRA will organize these remaining two steps.

BEST PRACTICES/LESSONS LEARNED

Taking user feedback into account during the revision of the NTF can add valuable insights to the NTF as otherwise this document is updated through literature review only.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Quarterly meeting of the sub-committee, "Rational Use of Antimicrobials"	July 2022
Support the DPH and the DQSS in monitoring AMS activities at health facilities including monitoring, prescribing, and dispensing practices	July 2022
Support the DQSS and DPH to print and disseminate 500 copies of the STGs and to share an electronic version	July 2022
Conduct a point of prevalence survey in at least one hospital	July 2022
Develop training modules and conduct training of health providers from MTaPS-supported DTCs	August 2022
Write lessons learned with primary recommendations on the scale up of DTCs implementation.	September 2022

Table 5. Quarter 3, FY22, Activity Progress, Burkina Faso – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Support the TS of the OHP	5.4	1.1		The OHP has developed a strategic plan validated on March 25, 2022. The validated plan will be submitted to the ministers involved in the OHP for official endorsement. The inter-ministerial orders establishing the AMR-TTC have been submitted to the ministers for signature.
Activity 1.1.2: Provide technical assistance to the AMR-TTC to complete the establishment of and capacitate the AMS sub-committee, including its human, animal, agricultural, and environmental sector TWGs	5.4	1.1		MTaPS, in collaboration with other stakeholders, is advocating for OHP operationalization. MTaPS had supported the AMR-TTC to carry out an induction workshop for the AMR-TTC sub-committee heads during the previous quarter. The president, secretary, and members of the AMR-TTC and its five sub-committees have been designated.
Activity 3.2.1: Support the DGSV in developing and validating a draft ministerial order regulating AMU in the animal sector based on the developed AMS guidelines	5.4	3.2		The draft ministerial order regulating AMU in the animal health sector is now available and submitted to the DGSV. The DGSV will submit it to the office of the Minister of Agriculture, Animal Resources and Fisheries for final review, approval, and signature.
Activity 3.2.2: Support the DGSV in printing and disseminating the guidelines for rational AMU in the animal sector	5.4	3.2		A secondary and final review of the guidelines is complete. The Secretary General of the Ministry of Agriculture and Animal Resource and Fisheries signed a foreword of the guidelines. The guidelines are ready for printing.
Activity 3.2.3: Review the NTF of the NEML and other health products	5.4	3.2		Under the leadership of the NDRA, experts reviewed and updated the NTF. The draft is currently available for validation and endorsement.
Activity 3.5.1: Support the DPH, DQSS, and AMR-TTC in monitoring the functionality of DTCs in 10 facilities	5.4	3.5		MTaPS supported the establishment of 10 DTCs at the primary (2), secondary (6), and tertiary (2) levels and trained a total of 250 DTC members.

C. CAMEROON

OVERVIEW

In FY22, MTaPS planned to monitor and strengthen the functionality of existing IPC committees by using IPC assessment tools to identify areas for improvement and guide the development of a detailed improvement plan of action, to support the Directorate of Health Promotion (DPS) to monitor HCAIs at the HF level, and orient IPC activities in the HFs.

MTaPS also planned to support the classification of antibiotics in the human sector following recommendations from the WHO AWaRe categorization of antibiotics, and support DTCs to ensure the enforcement and compliance monitoring of existing regulations, policies, and guidelines. A sustained, systematic approach is needed to train, coach, and mentor managers and providers on being good stewards of antimicrobials and to monitor health workers' practices in the human sector. This will require a strong central-level governance and stewardship mechanism that is associated with facility-level interventions, such as organizing supportive supervision visits in facilities that already have DTCs to strengthen their role in promoting AMS.

Through MTaPS, USAID is addressing these challenges to help Cameroon advance to higher JEE capacity levels in the AMR technical area. These activities fall under MTaPS sub-objective 5.4, and some of them are implemented in coordination with activities supported by other partners, especially those funded by USAID and the US CDC. In consultation with the MOPH, MTaPS activities have been designed to avoid duplication and enhance synergies and complementarity.

CUMULATIVE PERFORMANCE TO DATE

From the beginning of the program in July 2019 until now, MTaPS has supported Cameroon in the following benchmark actions in MSC, IPC, and AMS:

- For MSC, MTaPS has supported the coordination of AMR activities through the organization of 16 routine meetings of the TS of the AMR MSC committee (MCC), the AMS and IPC TWGs, other OHP members, and partners to monitor the implementation of AMR activities.
- For IPC, MTaPS has supported the baseline evaluation of IPC practices in 38 HFs, development of IPC training curricula, establishment of IPC committees in 12 HFs, development of the national IPC guidelines and action plan, training of 174 health staff (79 female, 95 male) in IPC, and CQI of IPC practices in 12 HFs.
- For AMS, MTaPS also supported DPML to carry out the situational analysis of AMS-related policies in the animal and human sectors, the development of a national integrated AMS action plan, the establishment of DTCs in 12 HFs, the training of 239 persons (134 female, 105 male) in AMS, and CQI of AMS activities in supported HFs.

QUARTER 3 ACHIEVEMENTS AND RESULTS

For MSC, MTaPS supported the coordination of AMR activities by organizing a meeting of the TS of the AMR MCC, the AMS and IPC TWGs, other members of the OHP, and partners to review and validate the report on the assessment of the NAP-AMR, prior to updating the NAP-AMR.

For IPC, MTaPS supported the DPS to carry out the onsite supervision of IPC committees in 12 MTaPS-supported HFs as part of the CQI process.

For AMS, MTaPS also continued supporting the DPML to monitor DTC activities in 12 MTaPS-supported facilities remotely via WhatsApp as part of the CQI process.

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.2.1: Support the TS of the AMR MCC and the OHP to update the NAP-AMR

In June, MTaPS supported the organization of a one-day meeting of the MCC TS with other stakeholders of the OHP and partners to review and validate the report on the assessment of the NAP-AMR prior to updating the plan. This meeting was held at Hotel la Falaise in Yaoundé and included 15 participants (8 female, 7 male) from the National Public Health Laboratory; the Ministry of Environment and Nature Protection; the Ministry of Livestock, Fisheries, and Animal Industries; and the Ministry of Agriculture and Rural Development. Partners included the USAID IDDS project.

During the meeting, the two national consultants hired to conduct the assessment presented the report. Meeting participants reviewed the report and made necessary modifications. At the end of the meeting, participants recommended that the consultants hold working sessions with the different sectors of the OHP to validate the information in the report and identify priority actions to include in the updated NAP-AMR. This recommendation was due to the low attendance at this meeting; only 15 out of 25 participants invited were present.

RESULT AREA 2: IPC

Activity 2.2.1: Strengthen technical capacity of key government AMR stakeholders and health care providers

On May 5, MTaPS supported the celebration of World Hand Hygiene Day (WHHD) in two HFs (Ebolowa regional hospital and Mbouda district hospital in the South and West regions, respectively). The WHHD was celebrated this year under the theme "unite for safety: clean your hands." The celebration of WHHD in the two HFs was facilitated by regional IPC focal persons and the facility champions, with the support of MTaPS staff. The target audience consisted of every person working at or visiting the HFs, including health and administrative staff, patients, and their caregivers. The day started with the facility IPC champions carrying out HH compliance audits in selected units/wards of the HFs (e.g., emergency, pediatric, and maternity), using the WHO HH compliance observation form, to evaluate HCWs' (especially nurses') compliance with the "5 moments" of HH during caregiving and their mastery of the steps of HH. The facilitators supervised the session and

IPC champion demonstrating hand hygiene at Ebolowa Regional Hospital during the celebration of WHHD, June 2022. Photo credit: Roselyne Toby, MTaPS Cameroon CPD

provided feedback to staff. Facilitators also sensitized patients and their caregivers on HH using the WHO "tips for patients" tool for HH promotion in health care. This was followed by demonstration sessions on HH practices. The WHO "Why, How and When" brochure was used to brief health staff and interns in the HFs. A total of 116 staff (81 female, 35 male) were sensitized to HH techniques and the importance of HH in reducing the spread of infections. They were also sensitized on the use of the existing e-Learning platform where they can take IPC courses. The day ended with MTaPS distributing 100 bottles (100mL) of hand rub gels and 100 bottles (1L) of liquid soap to the HFs.

Activity 2.5.1: Use IPC assessment tools at the facility level to identify areas for improvement and to guide the development of a detailed improvement plan of action

In June, MTaPS supported the DPS of the MOPH to carry out onsite supportive supervision of IPC committees in all 12 MTaPS-supported HFs. The aim of this supervision was:

1. To assess IPC core components using the WHO IPCAF tool
2. To assess the implementation of IPC activities in the facility improvement plans
3. To follow up on the implementation of recommendations formulated after the last supervision
4. To identify implementation challenges and discuss viable solutions to address them

A team of three supervisors—composed of a DPS representative, the regional IPC focal person from the Regional Delegation of Public Health, and an MTaPS staff member—carried out the supervision. The facility IPC champion worked with the supervisors to involve IPC committee members in the supervision exercise. The HFs visited are as shown in table 1 below:

Table 6: Health facilities supervised

Region	Health facility	Dates
Littoral	▪ Douala General Hospital ▪ Bonassama District Hospital ▪ Nkongsamba Regional Hospital ▪ Edea Regional Hospital Annex	June 13–18, 2022
West	▪ Bafoussam Regional Hospital ▪ Foumbot District Hospital ▪ Bangante District Hospital ▪ Mbouda District Hospital	June 13–18, 2022
South	▪ Ebolowa Regional Hospital ▪ Sangmelima Reference Hospital	June 7–9, 2022
Center	▪ Yaounde Jamot Hospital ▪ Obala District Hospital	June 10–11, 2022

The preliminary findings from this supervision revealed that 11 (91.6%) IPC committees were functional. These committees had held at least one coordination meeting since the last supervision. Eleven (91.6%) maintained their IPCAF status, with 7 (77.8%) improving their scores since the last supervision. Eight (66.7%) of the HFs had implemented at least 50% of their recommendations formulated during the last supervision, while 7 (77.8%) had implemented at least 50% of activities in their facility IPC action plans. Some of the challenges faced by the IPC committees included the transfer of committee members to other HFs, change of leadership in four HFs, with facility leaders not prioritizing the IPC improvement in

The regional IPC focal person in the West region administering the IPCAF tool during the supervision of IPC committees at the Bafoussam regional hospital, June 2022. Photo credit: Alphonse Acho, MTAPS

their HFs, the absence of a monitoring framework to measure progress with the IPC improvement plans, and poor documentation of activities. The weakest component was surveillance of HCAIs, and the non-inclusion of all five elements of the multimodal strategy in their efforts to improve IPC. MTaPS provided technical assistance to the committees to update their IPC improvement plans with a monitoring framework. During the debriefing sessions in the HFs, the facilitators advocated for the HF leadership to be more engaged in improving IPC.

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

Activity 3.5.1: Implement AMS programs, including monitoring of AMU and other interventions to improve antibiotic use at designated HFs

During Q3, MTaPS continued to provide technical support to the DPML to monitor the activities of DTCs in the 12 MTaPS supported HFs through WhatsApp. Through this platform, DPML and MTaPS have been monitoring the implementation of recommendations formulated during the last supportive supervision of the DTCs. Even though only around half of the 12 supported HFs frequently report on WhatsApp about activities implemented, the other HFs are gradually joining in due to consistent advocacy from the DPML with the support of MTaPS. Through WhatsApp, DTCs share reports of their activities and requests for assistance when faced with implementation challenges.

BEST PRACTICES/LESSONS LEARNED

- The engagement of the leadership of an HF is critical to an IPC committee's functioning.
- Training is not enough—mentoring and field supervision is essential for the effective functioning of HFs and their IPC committees.
- The frequent transfer to different facilities of trained IPC committee members already engaged in activities negatively impacts the functioning of the committees.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.2.1: Support the TS of the AMR MCC and the OHP to update the NAP-AMR	July 2022
Activity 2.5.2: Support the DPS to monitor HCAIs at the HF level	July 2022
Activity 3.1.1: Support the classification of antibiotics in the human sector following recommendations from the WHO AWaRe categorization	August 2022

Table 7. Quarter 3, FY22, Activity Progress, Cameroon

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH 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:** The existing national AMR action plan is obsolete and needs to be updated. MTaPS plans to collaborate with other partners to update the plan.	5.4	1.2		The FAO supported the evaluation of the existing plan as a first step, IDDS supported the recruitment of two national consultants to develop a first draft, and MTaPS will support the review and validation of the plan.
Activity 2.2.1: Strengthen technical capacity of key government AMR stakeholders and health care providers **Activity Description:** MTaPS supported the establishment of the e-Learning platform as well as the adaptation of modules in the platform. MTaPS plans to sensitize health staff on the existence of this platform and encourage its uptake to complement face-to-face training.	5.4	2.1		MTaPS supported the capacity building of 116 health staff, including interns, on HH protocols during the celebration of WHHD. MTaPS also encouraged the staff and interns to access the e-Learning platform to take the courses on IPC.
Activity 2.5.1: Carry out onsite supportive supervision of IPC committees in all 12 MTaPS-supported HFs **Activity Description:** MTaPS has supported the establishment of IPC committees in 12 HFs. During this quarter, MTaPS plans to support the onsite supportive supervision of all 12 IPC committees.	5.4	3.5		MTaPS carried out the onsite supportive supervision of all 12 IPC committees.

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. This goal will be attained by building the capacity of in-country stakeholders through a system-strengthening approach. MTaPS Côte d'Ivoire has been supporting the NAP-AMR Strategic Objectives 4 (reduce incidence of infections through effective sanitation, hygiene, and prevention measures) and 5 (improve RUA in human and animal health and environmental sectors). These objectives are directly aligned with MTaPS GHSA portfolio-level objectives. IPC and AMS are two of the strategic objectives in the 2015 WHO GAP on AMR and in Côte d'Ivoire's NAP-AMR. Both documents strongly emphasize MSC. MTaPS has been providing technical support to consolidate MSC on AMR, and the program's work focuses on the IPC and AMS technical areas, with direct technical assistance to the national AMR TWG and relevant ministries. The activities for FY22 are built on work done over the previous three years. In FY22, MTaPS continues to support Côte d'Ivoire to strengthen the governance of IPC committees, improve IPC practices, conduct AMS practices in HFs, and develop and implement systems to monitor AMU and consumption at both the national and facility levels.

CUMULATIVE PERFORMANCE TO DATE

Since the launch of MTaPS in September 2018, Côte d'Ivoire has made progress towards establishing a set of legislation and regulations aimed at strengthening the surveillance, rapid detection, and response capabilities of the country to disease outbreaks. MTaPS Côte d'Ivoire successfully established an MSC mechanism for zoonotic diseases, a TS, and TWGs to monitor AMR activities. MTaPS also conducted an assessment of IPC practices and AMS regulations leading to 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 that can address public health threats, including AMR. MTaPS has helped establish an AMR TWG to monitor AMR activities. This TWG is connected to the OHP through a national coordinating body called the MSC Group. MTaPS helped finalize the TOR and guidance manual for this body and its subcommittees.

In collaboration with WHO, USAID, US CDC, and the FAO, MTaPS supported the AMR, IPC, and AMS TWGs to develop and validate more than 15 reference documents, including the AMR governance manual; the national AMR policy; the 2019–20 multisectoral NAP-AMR; the 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 both IPC committees and DTCs in the same ten targeted HFs in the human health sector and two in the animal health sector (the veterinary clinic of the Ministry of Animal Resources and Fisheries' regional directorate of Bouake and the Antirabic Center of Cocody). MTaPS facilitated the development and validation of documents and

training modules in IPC and AMS, the training of HCPs, and the establishment of a CQI process in HFs. IPC committees and DTCs are functioning with clear TORs and have developed capacity building plans.

QUARTER 3 ACHIEVEMENTS AND RESULTS

RESULT AREA 1: EFFECTIVE MSC ON AMR

MTaPS supported the AMR secretariat to reduce the size of the MSC-AMR TWG to align it better with the other TWGs of the OHP. Due to this change, the TS of the OHP has been dismantled, and the former head of the TS of the OHP is now the focal point of the MSC-AMR TWG. The MSC-AMR focal point now plays a stronger leadership role by engaging directly with partners and mobilizing more resources for AMR. During the same meeting, MTaPS helped finalize the AMR Coordination Committee's (MCC) roadmap for 2022 to improve the AMR TWG's functioning and monitoring of the NAP-AMR. MTaPS also provided technical, logistical, and financial support to the AMR multisectoral bodies to organize 23 meetings.

RESULT AREA 2: IPC

MTaPS, in collaboration with the AMR-TWG through the Multisectoral Technical Committee 4 (MTC4), organized the training of 128 HCPs (52 females, 76 males) in 8 regional referral hospitals (16 HCPs per hospital). In each hospital, two regional-level IPC trainers and one central-level IPC master trainer facilitated a three-day training. Through presentations, demonstrations, learning exercises, group work, and plenary discussions, the facilitators presented 14 IPC-related sessions focused on:

- Introduction to hygiene in healthcare settings
- HCAIs: prevention and surveillance
- Notions on detergents, antiseptics, and disinfectants
- HH
- Treatment of reusable medical devices
- Maintenance of premises, furniture, and vehicles
- Sanitary waste management
- Accidents with exposure to blood and other biological products
- Control of disease vectors
- NAP-IPC
- AMR
- WHO multimodal strategy for IPC
- Injection safety
- Standard precautions

The HCPs are now able to implement IPC practices in their respective HFs and have developed improvement plans as part of the CQI process.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

MTaPS worked with the AMR TWG to train 18 master trainers (18 males) on AMS (6 pharmacists, 6 medical doctors, and 6 biologists). The master trainers then trained 183 HCWs (45 females, 138 males) including 123 DTC members and 56 other HCPs (medical doctors, pharmacists, laboratory staff, nurses) in 8 regional hospitals and 1 private clinic. The trainings focused on AMS and routine DTC activities.

Each DTC drafted an improvement plan using the challenge model. MTaPS also supported the AMR-TWG to train 126 HCPs (36 females, 90 males) including 95 private pharmacists and 31 medical doctors, regional hospital pharmacists, health district pharmacists, public pharmacy depot managers, and university medical and pharmacy faculty on AMR. These trainings were aimed at increasing awareness of AMS in the public and private pharmaceutical sectors.

BEST PRACTICES/LESSONS LEARNED

- During the MTaPS-supported AMS training at San Pedro General Hospital, a day was dedicated to the rational use of antibiotics, during which prescribers from other public and private HFs and private pharmacists were given the opportunity to join DTC members at the event. This brought together different perspectives from each field of activity (pharmacy, laboratory, and prescription), allowing the issue to be approached from different angles. Participants were able to share experiences and learned about the importance of multidisciplinary collaboration for the rational use of antibiotics.
- MTaPS' support to DTCs through strengthening their capacities to implement AMS activities has highlighted that many DTC members are unfamiliar with the mission of DTCs. This demonstrates the need for MOH to update the national order regulating DTCs to guide them better in activity implementation. With an updated national order, the committees will be more familiar with their mission, and a national framework will be available that respects international standards to oversee DTC activities, thereby guiding the implementation of AMS activities for better outcomes.
- To advance the conduct of IPC assessments in HFs, MTaPS supported the establishment of regional IPC focal points in 20 health regions and a pool of 36 regional IPC trainers. These local actors, already trained in IPC with MTaPS support, were oriented on the administration of IPCAF, HHSAF, and water and sanitation for health facility improvement tools (WASH FIT) with MTaPS support and took ownership of the tools. This has been a very good approach to devolve interventions, as the regional IPC focal points and trainers now conduct the IPC assessments themselves and provide the necessary training and orientation support to the IPC committees in their respective HFs. The local actors are also used by other partners, such as WHO and CDC Côte d'Ivoire, for the same interventions with the same tools in general hospitals not targeted by MTaPS support, thus strengthening MTaPS' contribution to the complementarity and improved efficiency of IPC interventions at the national level.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Strengthen the functionality of the MSC committee by organizing effective coordination through regular meetings of the AMR TWG	
■ Support the AMR TWG to continue ensuring the self-functioning of the TWGs: **a one-day coordination meeting of the AMR MCC**	July 2022
Activity 1.1.2 Support the AMR TWG to set up an M&E system to monitor implementation of the NAP-AMR and provide timely feedback	
■ Support the AMR TWG through the M&E officer and AMR M&E regional focal points to develop an M&E plan, activity implementation dashboard, and reporting tools	July 2022
■ Support the TWGs to conduct periodic stocktaking of benchmark tool actions and monitoring of NAP-AMR implementation	July–September 2022

Activity 2.1.1: Support the AMR TWG to strengthen the IPC program at the national and facility levels	
■ Conduct quarterly supportive supervision visits and mentoring in each facility: **the 2 IPC regional trainers and the IPC regional focal point will conduct 2-day site visits in 10 HFs for supportive supervision of IPC committee members**	July 2022
■ Technical support to the local IPC committees to repeat assessments in the initial 10 facilities as well as the 10 new facilities: **3-day site visits in 10 HFs to repeat IPCAF assessments**	July 2022
Activity 2.3.1: Support the AMR TWG to begin integrating data from the IPCAF, IPCAT2, and scorecard evaluations into District Health Information Software 2	
■ Support the AMR TWG to organize 2 working sessions for 10 participants from General Directorate of Health, DMHP, Direction de l'Hygiène Publique et Santé Environnement, Directorate of IT and Health Information, MTC4, and the AMR TWG: **1-day meetings to solicit feedback from participants, propose draft indicators, define the process for integrating the indicators, and prepare development and validation workshops**	July 2022
Activity 2.5.1: Strengthen the functionality of IPC committees in the human health sector and the capacity of HCPs to implement IPC	
■ Conduct onsite competency-based training of frontline HCWs in the 10 additional intervention facilities, including the use of new guidelines, and sensitize providers on the risks of AMR: **3-day training workshop of HCPs in 2 private clinics**	July 2022
Activity 3.1.1 (year 3): Support the AMR TWG to improve the national essential medicines list using the WHO antibiotic AWaRe categorization	
■ Support the expert group to gather, curate, and analyze multi-criteria evidence for review and decision-making, building on the WHO methodology: **three-day workshop for the AWaRe categorization of antibiotics**	July 2022
Activity 3.5.1: Support the AMR TWG to improve the governance and oversight system for AMS in HFs, including monitoring implementation of related policies, guidelines, and standards: establish/strengthen DTC capacities to implement AMS activities	
■ Extend the training to DTC members in 10 additional hospitals through a 3-day competency-based training workshop for selected facility staff (8 regional hospitals and 2 private clinics): **4-day competency-based training of DTC members in 2 regional hospitals and 1 private clinic**	June–July 2022
■ Establish a pool of trainers including 10 master trainers and 36 regional trainers, including the regional trainers on IPC and the regional pharmacists: **2 5-day TOTs to train regional trainers on AMS**	July–August 2022
■ Monitor implementation of AMS interventions through the supervision and monitoring of DTCs' action plans during site visits in the additional HFs (10 for FY21 and 10 for FY22): **2-day joint visits in 20 HFs from FY21**	July–September 2022
Activity 3.5.2: Support the AMR TWG to strengthen capacities of pharmacists to implement stewardship activities in the private sector	
■ Support the AMR TWG to organize a one-day meeting to train additional private pharmacists and representatives from private companies and civil society organizations in the animal health and agricultural sectors on AMS: **organize a one-day meeting to train private pharmacists in Bouake/San-Pedro to improve AMS practices**	August 2022

Table 8. Quarter 3, FY22, Activity Progress, Cote d'Ivoire

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Strengthen MSC committee functionality by organizing effective coordination through regular meetings of the AMR TWG **Activity Description:** Support the AMR TWG to organize a meeting of the AMR secretariat	5.4	1.1	N/A	MTaPS supported the AMR-TWG to hold a meeting of the AMR secretariat on May 5, 2022, to review progress on the NAP-AMR's implementation, reorganize the MCC by merging both the AMR secretariat and the MCC, and reduce the numbers of MCC members. The new MCC will be led by the AMR focal point to support faster implementation of the NAP-AMR. This meeting also allowed participants to review and finalize the MCC's roadmap. The new MCC structure will be launched during a one-day coordination meeting of the MCC to start overseeing AMR activities implementation. Resource mobilization is a short- and medium-term priority for the MCC, which is working on a call-to-action event for December 2022.
Activity 2.1.1: Support the AMR TWG to strengthen the IPC program at the national and facility levels **Activity Description:** Conduct baseline assessments in 10 additional HFs (regional hospitals of Korhogo, Odienné, Bondoukou, Bouaflé, Divo, Man, San Pedro, and Gagnoa; the *Polyclinique International Indenie*; and the *Clinique Centrale d'Abobo*) using the WHO IPCAF tool	5.4	2.1	N/A	MTaPS helped the country to attain data on the functionality of the national IPC program and facility-level IPC in ten additional HFs. Local IPC committees were established with TORs specifying their roles and responsibilities. They are now capable of effectively implementing AMR activities at the operational level. The capacity of HCWs and governance structures for IPC and AMS will be strengthened.
Activity 2.2.1: Support the AMR TWG to design and deploy interactive e-learning courses on AMR/AMS/IPC for health professionals **Activity Description:** Support the AMR TWG to identify and select additional universities to host the AMR course on a user-friendly, accessible, and sustainable e-learning platform	5.4	1.2, 2.2, 3.2	N/A	MTaPS collaborated with AFROHUN to support a multidisciplinary training workshop on OH approaches in January 2022. MTaPS will continue to collaborate with AFROHUN in introducing the IPC and AMS modules in the university curricula.
Activity 2.5.1: Strengthen the functionality of IPC committees in the human health sector and the capacity of HCPs to implement IPC **Activity Description:** Conduct onsite competency-based training of frontline health care workers in the 10 additional intervention facilities, including the use of new guidelines, and sensitize providers on the risks of AMR: three-day training workshop of HCPs in 10 hospitals	5.4	2. 2, 2.5	N/A	MTaPS strengthened the capacity of HCPs to implement IPC by training them during three-day workshops in eight hospitals. In each hospital, the training was conducted by two IPC regional trainers under the supervision of one IPC master trainer. A total of 128 HCPs were trained and can implement IPC in their respective HF. This activity will end in July 2022 with the training of HCPs in two private clinics in Abidjan.
Activity 3.5.1: Support the AMR TWG to improve the governance and oversight system for AMS in HFs, including	5.4	3.2, 3.5	N/A	From May 17, 2022, to June 30, 2022, MTaPS supported the AMR TWG—in collaboration with the regional directorates of

monitoring implementation of related policies, guidelines, and standards: establish/strengthen the capacities of DTCs to implement AMS activities **Activity Description:** Support the AMR TWG to extend the training to DTC members in ten additional hospitals through a three-day competency-based training workshop for selected facility staff (eight regional hospitals and two private clinics)				health—to organize 4-day competency-based trainings of 181 HCPs (123 DTC members) in 8 regional hospitals and 1 private clinic. The trainings were conducted by teams composed of three members of the AMS TWG, (one medical doctor, one pharmacist, and one biologist). On the third day, additional HCPs joined the trainings on rational antibiotics use—trainers presented sample STGs for common diseases and case studies of antibiogram results in order to improve antibiotics prescription at the referral hospitals and the clinic. The trainings offered the opportunity for discussions between prescribers (clinicians), pharmacists, and laboratory staff to improve collaboration between the three domains.
Activity 3.5.1: Support the AMR TWG to improve the governance and oversight system for AMS in HFs, including monitoring implementation of related policies, guidelines, and standards: establish/strengthen the capacities of DTCs to implement AMS activities **Activity Description:** Support the AMR to establish a pool of trainers including 10 master trainers and 36 regional trainers, including the regional trainers on IPC and the regional pharmacists	5.4	3.2, 3.5	N/A	MTaPS supported the AMR TWG through the AMS multisectoral committee with a 7-day training of master trainers. The trainings took place online between April 29, 2022, and May 24, 2022, and enabled training for 18 master trainers (including 6 trainers based in health regions) who are conducting competency-based trainings of DTCs members in referral hospitals and private clinics. The 6 trained trainers based in remote health regions will join the regional trainers' group for future trainings.
Activity 3.5.2: Support the AMR TWG to strengthen capacities of pharmacists to implement stewardship activities in the private sector **Activity Description:** Support the AMR TWG to organize a one-day meeting to train additional private pharmacists and representatives from private companies and civil society organizations in the animal health and agricultural sectors on AMS	5.4	3.5	N/A	MTaPS supported the AMR TWG in collaboration with the Pharmacist Society of Côte d'Ivoire (SOPHACI) responsible for pharmacists' continuous education, and the national pharmacist association, to train 212 HCPs (of whom 155 are private pharmacists) during three one-day meetings on antimicrobials rational use with a focus on private pharmacists. The meetings took place on May 14, May 25, and June 16, 2022, respectively, in Abidjan, Bassam, and Gagnoa. These events focused on AMR and the appropriate use of antimicrobials, in addition to the appropriate use of medicines with a risk of addiction, and the contribution of pharmacists to the treatment of anemia and kidney diseases. This training will help pharmacists to increase the appropriate use of antimicrobials in the private sector.

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. This goal will be attained by building the capacity of in-country stakeholders through a system-strengthening approach. 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 and WHO benchmarks for IHR capacities. In DRC, the goal of achieving good patient outcomes will be met using multidisciplinary and MSC to improve IPC and AMS. MTaPS' strategy bases its activities and implementation on guidance from WHO benchmarks and the JEE while relying on other published guidance on best practices: to collaborate with the appropriate partners at the global, regional, and country levels and to combine planning and implementation with an embedded monitoring and knowledge sharing element to capture, document, and disseminate experience and results. Through MTaPS, USAID is contributing to addressing these challenges to help DRC achieve higher WHO IHR capacity levels in the AMR technical areas.

CUMULATIVE PERFORMANCE TO DATE

DRC had a score of 1 (no capacity) for both IPC (P.3.3) and AMS (P.3.4) during the baseline JEE in March 2018. As per MTaPS DRC's strategic approach, actions were focused on supporting the critical path to achieving higher capacity levels and helping the country improve its JEE scores. Since PY1, MTaPS DRC supported 25 WHO benchmark actions—7 contributing to MSC/AMR, 9 to IPC, and 9 to AMS. WHO benchmark capacity level actions achieved by mandated areas since PY1 are:

- **MSC on AMR:** MTaPS helped country counterparts progress in MSC/AMR by supporting 75% (3/4) of level 2 actions, 50% (2/4) of level 3 actions, 25% (1/4) of level 4 actions, and 20% (1/5) of the level 5 actions. These numbers include only MTaPS support and reflect DRC's current achievement status, except on level 3 actions which also benefited from other partners' support, bringing the total percentage of benchmark actions supported to 100% (4/4).
- **IPC:** MTaPS helped country counterparts progress in IPC by supporting 40% (3/5) of level 2 actions, 50% (3/6) of level 3 actions, and 20% (1/5) of level 4 actions in DRC. These numbers reflect only MTaPS support and reflect DRC's current achievement status, except on the level 2 and 3 actions, which also benefited from other partners' support, bringing the total percentage of benchmark actions supported to 60% (3/5) and 67% (4/6), respectively.
- **AMS:** MTaPS contributed to progress toward level 2 capacity in AMS, as it already supported 100% (4/4) of the actions recommended for this level. MTaPS also supported 50% (3/6) of the actions recommended for capacity level 3 and 29% (2/7) of the actions for capacity level 5. These numbers include only MTaPS support and reflect DRC's current achievement status, with the exception of

level 3 actions, which also benefited from other partners' support, thus bringing the total percentage of benchmark actions supported to 67% (4/6).

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Provide technical and logistical support to the National Commission on AMR (NC-AMR) and the related TWGs (AMS and IPC) for effective monitoring and planning of AMR interventions

MTaPS, in collaboration with WHO, helped DPM and NC-AMR hold their quarterly subcommittee meetings. Members from the three sectors (human, animal, and environmental health) attended.

- AMS issues discussed included the following:
  - **AMR NAP:** Implementation of the AMR plan requires financial resources; as WHO helps countries mobilize resources, it encouraged the DRC NC-AMR to submit a funding request using the required application form as it is done for many other countries that have benefited from funds for their AMR activities. The WHO Resources Mobilization Officer (RMO) briefed members of the subcommittee on the proposal writing and fundraising.
  - **OH:** WHO representatives noted with appreciation the composition of the subcommittees, which takes all sectors into account; they further expressed that the good collaboration should not be limited between WHO, MTaPS, and FAO but should be extended to other partners like World Bank, Santé Rurale (SANRU), and IMA.
  - **DTCs:** As part of the MOH's ownership and sustainability effort regarding the establishment and strengthening of DTCs, the MOH Secretary General recommended that NC-AMR develop a DTC establishment and implementation plan to consider matters related to the functioning of DTCs, e.g., as developing a medicine formulary and STGs for appropriate AMU, as well as developing data collection tools to assess the effectiveness of DTC interventions regularly and implementing the WHO AWaRe classification that was adopted by the country.

- IPC issues discussed included the following:
  - **IPC assessment tool in the DRC:** Currently, there is no standardized tool formally adopted for IPC assessments in DRC. IPC assessments are done using different tools. This does not allow for comparative analyses or formulating conclusions on findings from the various assessments. Therefore, the subcommittee decided to develop or adapt a standardized IPC tool using WHO's IPCAF and IPCAT assessment models. The IPC subcommittee will present the standardized tool during the next meeting of the NC-AMR for adoption.

Activity 1.2.1: Support the NC-AMR to conduct joint MSC field support supervision visits in the human, animal, and environmental sectors, and use the supervision findings to conduct the annual Tripartite AMR Country Self-Assessment Survey (TrACSS)

MTaPS, in collaboration with WHO, supported DPM to conduct the annual Tripartite AMR Country Self-Assessment Survey (TrACSS) for 2022 to assess the AMR National Plan's implementation progress. TrACSS is a multisectoral survey that used to be limited to the human and animal sectors but is now extended to the environmental sector. TrACSS 2022 shows improvement in some areas while other

areas remained the same compared with TrACSS 2021 and 2020. The table below summarizes TrACSS results in selected areas in comparison to the previous years:

TrACCS Indicators	2020	2021	2022
Multisectoral and OH coordination	B	D	D
Progress on NAP-AMR development	C	D	D
Raising awareness on AMR risks and responses	B	C	C
Training and professional education in farming, food, and environmental sectors	A	B	C
National monitoring system for consumption/rational use of antimicrobial in human sector	A	B	B
Adoption of AWaRe in the NEML	B	C	C
Optimizing antimicrobial use in human health	A	C	C
Existence of M&E plan for the implementation of the NAP on AMR	No	No	Yes

RESULT AREA 2: IPC

Activity 2.1.1: Support the NC-AMR to conduct a rapid assessment of IPC practices, including the implementation of guidelines and regulations in both the animal and human health sectors

MTaPS supported the MOH through the Directorate of Hospital Hygiene to conduct an IPC assessment at the central level using WHO IPCAT. This provided IPC baseline data for the central level for the following IPC components: IPC program, IPC education and training, surveillance of HAIs, multimodal strategies, and monitoring/audit of IPC practices and feedback. MTaPS, in collaboration with DPM and the Directorate of Hospital Hygiene, supported the directorate of the fight against animal diseases (Direction de Lutte contre les Maladies Animales; DLMA) to complete IPC assessments in eight animal care facilities (ACF), including four farms and four veterinary clinics, using the adapted IPCAF tool. Three of the eight ACFs were assessed in August 2021, providing a comparison for the April 2022 assessment. The assessment conducted in the five additional ACFs provided baseline data to allow future review and comparison in these ACFs. The results obtained are summarized in the table below:

Facilities	August 2021		April 2022	
	Rating	IPC level	Rating	IPC level
SOCEP	279 (57%)	Intermediate	256.5 (52%)	Intermediate
DAIPN	178 (36%)	Basic	160	Basic
NGRAY	319 (65%)	Advanced	260	Intermediate
C vet Kinshasa	-	-	171	Basic
Clinic Peniel	-	-	195	Basic
Clinic Kabongo	-	-	176	Basic
Aberdeen	-	-	112	Basic
AMICONGO	-	-	300	Intermediate

Of the three ACFs reassessed in April 2022, SOCEP maintained its intermediate IPC level, DAIPN maintained its basic IPC level, and one NGRAY dropped from advanced to intermediate IPC level. The results point out the need for interventions to promote IPC practices in all the ACFs. The assessment report was shared with NC-AMR, and DLMA was recommended to identify the root causes of the issues and implement appropriate actions.

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 helped the MOH Direction Générale d'Organisation et de Gestion des Soins de Santé (DGOGSS) and DPM to establish the last DTC in Kinshasa at the private Initiave Plus Hospital. Thirty-three (13 female, 20 male) DTC members were trained on the rational use of medicines, especially antibiotics. Participants developed action plans for their HFs; baseline data were collected to track medicine use indicators through a data review process to be conducted quarterly.

Also, MTaPS supported DTCs of Heal Africa, Kyeshero, Nyankunde, and Bunia hospitals in collecting AMU data as part of CQI. Data collected were related to antimicrobial prescribing patterns and patients' knowledge of medicines prescribed. MTaPS helped Kyeshero DTC evaluate progress of their action plan implementation and update the hospital EML in alignment with the NEML. The table and the graph below give the trend of antibiotic prescribing patterns:

Table 9. Antibiotic prescribing patterns in health facilities

HF	Baseline (July 2020)	Review 1 (April 2021)	Review 2 (August 2021)	Review 3 (March 2022)	Review 4 (June 2022)
Heal Africa	19	86.6	26.6	43	50
Kyeshero	56.6	64.9	50	58.2	49.8
CME Bunia	47	16	33	96.7	90
HGR Bunia	18.3	50	57	25	24.8

BEST PRACTICES/LESSONS LEARNED

- Through sensitization and training, MTaPS helped the DRC government view AMR as one of the priority health issues that must be addressed in the country. To this end, WHO recommended DTCs as one of the mandatory governing structures at referral hospitals to oversee AMS-related activities at the operational level. This is a good step forward toward sustainability and government ownership.
- To ensure DTCs' continuing effectiveness, MTaPS conducted a training on CQI for AMS for all DTC members at supported facilities. AMS CQI is now being implemented in all 12 MTaPS- supported facilities to continuously promote the rational and appropriate use of antibiotics.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Support NC-AMR and its subcommittees through DPM to organize MSC visits	July 2022
Support quarterly meetings of NC-AMR and its subcommittees (AMS and IPC)	July–August 2022
CQI indicators review for all the DTCs	July–September 2022
Support DPM disseminate the revised national EML, which integrates the WHO AWaRe categorization. Collaborate with WHO and FAO to support NC-AMR's AMS TWG to conduct one multisectoral field visit and one virtual monitoring meeting with selected hospitals.	July–August 2022

Table 10. Quarter 3, FY22, Activity Progress, DRC – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Provide technical and logistical support to the NC-AMR for effective monitoring and planning of AMR interventions	1.1			In collaboration with WHO, MTaPS supported the DPM and NC-AMR to hold their quarterly subcommittee meetings. Participants discussed the following issues: ■ Requests for funding for the NAP-AMR. ■ Extending collaboration to additional partners like the World Bank, SANRU, and IMA. ■ Development of a DTC establishment and implementation plan. ■ Developing or adapting a standardized IPC assessment tool for DRC MTaPS also supported the Directorate of Hospital Hygiene to conduct an IPC assessment with the WHO IPCAT tool.
Activity 1.2.1: Support NC-AMR to conduct joint MSC supervision visits in the human, animal, and environmental sectors, and use the supervision findings to conduct the annual TrACSS	1.2			MTaPS, in collaboration with WHO, supported the DPM to hold a workshop for the TrACSS evaluation. This is DRC's sixth TrACSS evaluation, which is a multisectoral survey. Workshop participants reviewed the following concepts: multisectorality, human health, animal health, food and agriculture, and the environment. TrACSS 2022 shows improvement in certain areas as compared with the TrACSS 2021 and 2020, while the scores remained the same for other areas.
Activity 2.1.1: Support the NC-AMR to conduct a rapid assessment of IPC practices, including the implementation of guidelines and regulations in both the animal and human health sectors	2.1			MTaPS, in collaboration with DPM and the MOH's Directorate of Hospital Hygiene, supported the DLMA to carry out facility IPC assessments in eight ACFs, using the adapted IPCAF tool. Three out of the eight ACFs were assessed in August 2021, which provided a comparison for the April 2022 assessment. MTaPS also supported the MOH through the Directorate of Hospital Hygiene to conduct an IPC assessment at the central level using the WHO IPCAT.
Activity 3.5.1: Establishment of effective DTCs **Activity Description:** Establish/strengthen DTCs to oversee the implementation of AMS interventions and conduct stewardship practices at designated HFs	5.3	3.5		MTaPS supported MOH DGOGSS and DPM to establish a DTC in Kinshasa at Initiave Plus private Hospital. 33 DTC members (13 women, 20 men) were trained, and participants developed action plans for their HFs and collected baseline data. 60 prescriptions were selected to assess prescribing behaviors of antibiotics and other essential medicine, and 40 patients were interviewed to assess their knowledge on the route, dose, frequency, and duration of treatment. In addition, MTaPS supported the DTCs of Heal Africa, Kyeshero, Nyankunde, and Bunia hospitals in collecting AMU data as part of CQI. MTaPS helped the Kyeshero DTC to evaluate its action plan implementation and update the hospital EML in alignment with the NEML.

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

OVERVIEW

MTaPS' MNCH/FP/RH/TB 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—particularly for women and children—with a focus on USAID-supported provinces. Based on available funds, USAID and MTaPS selected two eastern provinces, Nord Kivu and Ituri, for this work plan period. A stronger pharmaceutical system in DRC will enable achievement of USAID-supported health goals, including preventing maternal, newborn, and child deaths, as well as expanding access to essential medical products and progressing toward UHC in the country.

To achieve this goal, MTaPS' interventions in DRC cover four technical areas:

- Strengthening governance, focusing on coordination, leadership, stewardship, transparency, accountability, and community and civil society involvement
- Building individual, institutional, and regulatory capacity for smooth and sustained implementation of quality interventions
- Strengthening information systems for informed decision-making
- Improving the availability and use of medical products (for both curative and preventive care) and pharmaceutical services

Activities for PY4 build on MTaPS' work in previous years and as the achievements of the previous USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program. These activities include coordination with other country programs and partners 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 (GHSA-TA, IHP, and the new USAID MOMENTUM Integrated Health Resilience [MIHR] and Safe Surgery in FP and Obstetrics projects), 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

Since PY1, MTaPS has been supporting DPM to strengthen the medicine registration processes to facilitate the timely registration of needed MNCH, FP/RH, TB, and other essential medical products, as well as the update and dissemination of the Directory of Registered Medicines to support customs control and inspectorate functions. MTaPS also strengthened the capacity of new members of the NMRA of the DPM by organizing training workshops on processing MA requests, as well as briefing requesters on marketing and import authorization processes.

MTaPS support also strengthened the stewardship role of the medicine TWGs in Nord Kivu and Ituri. MTaPS' support was essential for the establishment of a MNCH subgroup with a special focus on

MNCH health products. Achievements resulting from the TWG and subgroup include the effective use of the national supply chain system by partners for medicines distribution, more effective collaboration with donors and IPs (USAID, GF, EU, UNICEF, Save the Children, UNFPA, MEDAIR, PPSSP, etc.), effective redistribution/reallocation of commodities close to expiry, including MNCH products, to prevent losses), better visibility of stock level of medicines, a key topic addressed during TWG meetings, and the establishment of provincial quantification committees to address quantification-related weaknesses at the provincial and HZ levels.

MTaPS helped build the capacity of 350 community members (CODESAs) in monitoring and overseeing medicines management, particularly MNCH, FP/RH, and TB commodities. Capacity building focused on stock management, accountability between HFs and the community, logistics data collection, and storage conditions. MTaPS also supported DPSs in Nord Kivu and Ituri to serve as forums for community and civil society members to discuss their perception of and involvement in health service delivery in their respective HZs, transportation and distribution of medicines, findings from the stock taking, and other medicine management issues. MTaPS facilitated quarterly meetings in each supported HZ which were attended by 35 community members on average. This was the first time community members were involved in medicine management in their respective HZs. Community members began influencing the management of health commodities, e.g., sending alerts about issues regarding medicine availability and management. Other results included good collaboration between health center managers and RECOs in Nord Kivu, improved transparency in managing health commodities and finances, and improved accountability in inventory management through effective community participation.

To bring FP services closer to the community, MTaPS, in collaboration with the USAID/MIHR project and UNFPA, helped the National Reproductive Health Program (PNSR) define a reduced FP package—specifically the contraceptive kit for CCSs—and to estimate the quantity of these needed items. The package included cycle beads, subcutaneous DMPA (Sayana Press), the oral combined pill, the progestogen-only pill, and female and male condoms. With MTaPS advocacy, UNFPA started supplying HFs with FP products, and another FP commodities order was processed with USAID/procurement and supply management (PSM).

MTaPS collaborated with Action Damien (AD) to support DPS and the provincial TB Program in Ituri to organize mini awareness raising campaigns for active detection of TB and adherence to TB treatment in two selected HZs (Bunia and Nizi) with low TB case notification rates and high rates of TB default and losses to follow-up. During these campaigns, 41 sputum samples tested TB positive out of 248 sputum samples collected, or 16.5% in Bunia HZ. In Nizi HZ, out of 634 suspected cases referred to the screening center (CSDT), 77 tested TB positive, including 4 cases of TB/HIV co-infection.

In addition to disseminating 16 protocols and job aids to all 166 MTaPS-supported HFs in Nord Kivu and Ituri, MTaPS helped the MOH update the EML to include other MNCH products, such as heat-stable carbetocin and tranexamic acid. MTaPS also supported the national MNCH program (DSFGS/D10) to develop treatment protocols and job aids for the use of oxygen, heat-stable carbetocin, tranexamic acid, and folic acid in collaboration with the USAID/IHP project. The workshop also validated amoxicillin dispersible tablets (DT) dispensing job aids that were developed by PATH in 2015 and updated by MTaPS in 2020.

Workshop participants included members of the National Acute Respiratory Infections Control Program (PNIRA), National RH Program, the NMRA (DPM), anesthesiologists and resuscitators from the University of Kinshasa, the DRC national president of gynecologists and obstetricians, and IPs. To date, protocols and job aids for the use of medical oxygen, heat-stable carbetocin, tranexamic acid, and folic acid, as well as updated and validated amoxicillin DT dispensing job aids are available and disseminated in collaboration with the DPS of Nord Kivu and Ituri. In each province, 20 participants attended a 2-day dissemination meeting, from the DPS, PNSR, PRONANUT, HZs supported by USAID-MTaPS, in these 2 provinces. MTaPS distributed the protocols and job aids to HZs team, DPS and PNSR for dissemination and for the use and administration of heat-stable carbetocin, tranexamic acid, and folic acid, as well as amoxicillin DT in HFs.

QUARTER 3 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PHARMACEUTICAL SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.3: Improve the functioning of provincial TWGs on medicines in Nord Kivu and Ituri

MTaPS helped DPS to conduct provincial TWG meetings on April 7 in Ituri and on June 7 in Nord Kivu. MTaPS supported the RH subgroup in Ituri province to hold its thematic meeting, focused on updates on RH interventions. Representatives from WHO, UNFPA, OCHA, Save the Children, PPSSP, Solidarité féminine pour la paix et le développement intégral (SOFEPADI), and the provincial RH program, as well as civil society members attended the meeting. Participants provided updates on their RH interventions and information on security alerts, ongoing projects, perspectives, and evaluations carried out and/or planned. The mapping of post-exposure prophylaxis (PEP) kits and data on maternal deaths in Ituri were also updated by participants under the RH program coordination. In Nord Kivu, participants included representatives from partners (such as UNICEF, MSF, CORDAID, IMA, Save the Children, UNFPA, MEDAIR, PPSSP, SANRU, ASRAMES, etc.); DPS; specific program members, including TB, malaria, RH, and HIV programs; and civil society members. Key achievements consisted of approval of the distribution plans for malaria, HIV/AIDS, TB, and COVID-19 PPE for Q2 of 2022.

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

Activity 5.1.2: Improve the availability of commodities needed for iCCM for treating children at the community level in selected HZs (MNCH-specific activity)

In April and May 2022, MTaPS collaborated with DPS, HZs, and HFs in Nord Kivu and Ituri to train the RECOs and HCPs on MNCH product at the iCCM level, needs requirements, distribution planning, and MNCH commodities management and use. The training focused on the use of new tools for CCSs, the management of the reduced package of FP commodities at the community level, the projection of annual needs for amoxicillin DT 250 mg, ORS-Zinc kits, and paracetamol for CCSs, and development of a distribution plan. Participants identified challenges that hinder the availability of health commodities in the two provinces: a lack of training for RECOs since 2016, the low availability of new tools in the CCSs; and a shortage of MNCH and FP products in CCSs.

Activity 5.1.3: Support DPS in collecting contraceptive consumption information from the private sector to determine the contraception information gap

MTaPS supported the MOH to conduct a survey on contraceptive consumption in the private sector in Nord Kivu and Ituri provinces. The survey collected FP commodity data in the private sector, including private pharmacies providing FP services. The data collection aimed to estimate the private sector's contribution to the CYP in Ituri and Nord Kivu provinces.

Key findings include:

- Low private healthcare institutions' data in the national health information system
- Lack of support to the private institutions in the two provinces visited
- High availability of male condoms and oral contraceptives
- Low availability of implants
- Condoms and oral contraceptives represent more than 80% of modern contraceptive methods distributed in the private institutions
- Male condoms and oral contraceptives are mainly distributed in the private sector and less in the public sector

MTaPS also collaborated with Pathfinder to support the Direction de la Santé de la Famille et de Groupes Spécifiques (DSFGS/D10) to organize the workshop of the TS of the National SR-MNEA-Nut Platform to review technical documents for operationalizing and integrating the package of FP commodities, including DMPA-SC, in pharmaceutical dispensaries.

Two key activities took place during the workshop:

- Review and adoption of the survey results on the consumption of contraceptives in the private sectors in HZs supported by MTaPS in the two provinces (Ituri and Nord Kivu)
- Adoption of the results of the selection and forecasting of the reduced package of FP commodities to be introduced at the community level, carried out with MTaPS technical and financial support in the HZs under support in Ituri and Nord Kivu

Activity 5.2.1: Support DPS to strengthen MNCH healthcare capability by disseminating updated MNCH treatment protocols and related job aids to HFs and training HCPs on their appropriate use (MNCH-specific activity)

In April and May 2022, MTaPS supported the DSFGS/D10 in organizing an endorsement meeting of the newly developed protocols and job aids for the use of heat-stable carbetocin, tranexamic acid, and folic acid.

Following group discussions and a plenary session, participants endorsed the protocols and job aids for the use of heat-stable carbetocin, tranexamic acid, and folic acid.

MTaPS supported the printing of the corresponding protocols and job aids for dissemination in HFs. In May 2022, MTaPS supported DSFGS/D10, in collaboration with DPS of Nord Kivu and Ituri, to organize dissemination of the protocols and job aids for use and administration of heat-stable carbetocin, tranexamic acid, and folic acid by HF staff.

Twenty participants in each province from DPS, PNSR, and PRONANUT in the HZs supported by MTaPS attended the two-day meeting,

MTaPS supported the establishment of the pool of extension workers in the two provinces (Pool des Vulgarisateurs Provinciaux). The protocols and job aids have been distributed to HZ teams, DPS, and PNSR for dissemination and for the use and administration of heat-stable carbetocin, tranexamic acid, and folic acid, as well as amoxicillin DT in HFs.

BEST PRACTICES/LESSONS LEARNED

- Regular meetings with MOH staff (at the national and provincial levels) are the best platforms for discussions and sharing experiences, and lead to greater coordination and trust among stakeholders.
- Working in collaboration/synergy with other IPs strengthens the impact of MTaPS interventions in the field as well as government ownership.
- Although the commitment of DPS is important for success, it is also important to identify and collaborate with resource persons at the lowest levels to accelerate progress.
- When a tool meets the needs of users, they take ownership of it in a sustainable way.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activities in the new work plan still under USAID review for approval	July–September 2022

Table 11. Quarter 3, FY22, Activity Progress, DRC – MNCH

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.3: Improve the functioning of provincial TWGs on medicines in Nord Kivu and Ituri **Activity description:** Continue improving the functionality of the provincial medicines TWGs and related sub-groups. The thematic subgroups (MNCH, FP, and TB) meet monthly to discuss and present their specific issues and suggest corrective measures during the quarterly provincial medicines TWG meetings. Support the TWGs in developing action plans and building the capacity of the TWGs and subgroups in data analysis and decision-making.	1.1, 3.2, 5.1		1.1	MTaPS continues supporting medicine TWGs and the related subgroups. The visibility of medicines stock level and quarterly distribution remains a key topic during the TWG meetings. In Q3, in Ituri, the mapping of PEP kits and data on maternal deaths were updated. In Nord Kivu, a key topic was the approval of distribution plans for malaria, HIV/AIDS, TB, and COVID-19 PPE for Q2 of 2022.
Activity 1.1.3: Improve the functioning of provincial TWGs on medicines in Nord Kivu and Ituri **Activity description:** Continue improving the functionality of the provincial medicines TWGs and related subgroups. The thematic subgroups (MNCH, FP, and TB) meet monthly to discuss and present their specific issues and suggest corrective measures during the quarterly provincial medicines TWG meetings. Support the TWGs in developing action plans and building the capacity of the TWGs and subgroups in data analysis and decision-making.	5.1		1.1	MTaPS supported the MOH to conduct a survey on contraceptive consumption in the private sector in Nord Kivu and Ituri provinces. The survey collected FP commodity data in the private sector, including private pharmacies providing FP services. The data collection exercise aimed to estimate the contribution of the private sector to the CYP in Ituri and Nord Kivu provinces.
Activity 5.1.2: Improve the availability of commodities needed for iCCM for treating children at the community level in selected HZs (MNCH-specific activity) **Activity description:** Continue with the advocacy efforts to other partners, especially those providing child health commodities, to address the underlying causes and critical issues identified in the previous year to allow the delivery of the full iCCM package at the community level, thereby reducing unnecessary referrals of children from community level to HFs, especially in the context of insecurity and poverty in eastern DRC.	5.2, 5.1, 3.2, 2.2		5.1	MTaPS collaborated with DPS, HZs and CCSs in Nord Kivu and Ituri to train RECOs and HCPs on MNCH product needs requirements, distribution planning, and MNCH commodities management and use. The training focused on the use of new tools for CCSs, the management of the reduced package of FP commodities at community level, the projection of annual needs for amoxicillin DT 250 mg, ORS-Zinc kits, and paracetamol for CCSs, as well as the development of a distribution plan. Participants identified that RECOs have not trained since 2016, there is a low availability of new tools in the CCSs, and there is a shortage of MNCH and FP products in CCSs.
Activity 5.2.1: Support DPS to strengthen MNCH health care capability by disseminating updated MNCH treatment protocols and related job aids to HFs and training HCPs on their appropriate use (MNCH-specific activity)	5.2		5.2	MTaPS supported DSFGS/D10 to organize an endorsement meeting of the newly developed protocols and job aids for the use of heat-stable carbetocin, tranexamic acid, and folic acid. After the endorsement, MTaPS assisted DSFGS/D10 to

Activity description: In addition to disseminating many protocols and job aids, MTaPS will support the MOH in updating the EML to include many essential medicines, including heat-stable carbetocin and tranexamic acid. MTaPS will also collaborate with the MIHR and MSSFPO projects and will continue to assist the DPS to improve the availability of missing MNCH treatment protocols and job aids at the HF level.				print the corresponding protocols and job aids for dissemination in HFs. DSFGS/D10, in collaboration with the DPS of Nord Kivu and Ituri, disseminated the protocols and job aids through a two-day meeting in each province for 20 participants from the DPS, PNSR, and PRONANUT in HZs supported by MTaPS.

F. ETHIOPIA

OVERVIEW

Ethiopia is one of the countries selected to implement AMR prevention and containment interventions through funding from the GHSA. The goal of MTaPS Ethiopia's GHSA portfolio is to build the capacity of government stakeholders to effectively combat the development and spread of AMR. MTaPS provides targeted technical assistance to Ethiopian stakeholder institutions in three result areas of the AMR action package: effective MSC, IPC, and optimizing use of antimicrobial medicines through effective implementation of AMS programs. These interventions are meant to support the country on its pathway toward improving its JEE scores to meet the priorities of the GHSA compared 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 MOH and RHBs to implement priority actions of WHO benchmarks for IHR capacities in MSC, AMS, and IPC. In MSC, MTaPS' support contributed to the completion of 3 of 4 (75%) capacity level 2 and level 3 actions, and 2 of 4 (50%) level 4 actions by the end of PY2 (FY20). Over PY1 and 2, MTaPS supported the revision of the National OH AMR action plan and established an AMR unit within MOH. To strengthen the operational capacity of the NAMRAC, MTaPS facilitated its restructuring including updating of membership to ensure broader stakeholder/partner involvement and revision of its TOR as well as development of TORs for its IPC and AMS TWGs.

In the area of AMS, MTaPS supported the practical implementation of AMS interventions at selected referral hospitals, and the revision of the national EML and national STG for general hospitals based on the WHO AWaRe categorization of antibiotics for the first time. MTaPS' support contributed to improving AMS as shown by the completion of 3 of 6 (50%) level 3 and 1 of 7 (14%) level 4 GHSA benchmark actions. Facility-level support to further improve the scores continued this year.

As part of improving the country's capacity in IPC, MTaPS supported the revision and launch of the national IPC guideline and IPC training materials. The program also built the capacity of IPC focal persons at the national, regional, and facility levels by providing training to more than 2,500 HCPs. MTaPS also supported MOH in identification of gaps in the national IPC program using WHO's IPCAT2 and in the design of a central-level improvement plan. Moreover, MTaPS provided technical support to HFs to improve their IPC performance using WHO's IPCAF tool. An initial group of 21 hospitals conducted IPCAF self-assessments with support from MTaPS. A later assessment conducted at four of these hospitals showed substantial improvement in their IPCAF score. One hospital progressed from an inadequate IPC score to the higher end of the basic level score, the second progressed from the basic to intermediate level. and the other two hospitals maintained their IPC levels but improved their IPC score by 20–25%. MTaPS' support contributed towards improving Ethiopia's progress toward achieving higher JEE scores in IPC by supporting 3 of 5 (60%) level 2, and 5 of 6 (83%) level 3 GHSA benchmark actions. MTaPS has continued supporting national- and facility-level IPC interventions to date.

QUARTER 3 ACHIEVEMENTS & RESULTS

In Q3, the MTaPS Ethiopia portfolio accomplished the following key results:

- Supported MOH and Ethiopian Pharmaceutical Association (EPA) to colorfully celebrate the 10th AMR Day**.** The event was attended by 70 participants (21.4% female). The event provided an excellent opportunity for exchange of ideas and experiences among participants, securing commitment from stakeholders, and creating awareness in the community.
- Coordinated with the national AMR secretariat of MOH and organized the 39th meeting of the OH NAMRAC. Evaluation of the six-month performance report of AMR stakeholders was one of the key agenda items. The reports from stakeholders indicated substantial progress in the implementation of the national AMR strategic plan across various stakeholders, particularly at the national level. However, many implementation gaps remain at the regional and HF levels.
- Supported the provision of TOTs on IPC and AMS to 28 (4 female) and 24 (25% female) health professionals, respectively. This training helped to create a pool of well-trained professionals to further cascade basic training. They will also serve as focal points for the IPC and AMS program implementation at regional and facility levels.

AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support MOH and national AMR MSC stakeholders to develop sector-specific and regional operational plan based on the revised national AMR strategic plan

In this quarter, MTaPS supported MOH and EPA to celebrate the 10th AMR Day on June 15, 2022, an event organized since 2013 with the objective of increasing awareness about AMR among policy makers, government officials, health professionals, and the public. This year's event was marked with the theme "Coordinated Efforts Towards Antimicrobial Stewardship." A total of 70 (15 female) participants attended the event. Technical presentations, moderated panel discussions, and a press release were part of the event. The event provided an excellent opportunity for exchange of ideas and experiences among participants, helped secure commitment from stakeholders/partner participation, and improved awareness in the community. The event also attracted significant media coverage and was aired by more than six media outlets.

Activity 1.1.2: Continue to support PMED to organize effective MSC through regular meetings of AMR stakeholders

Participants of the 39th OH NAMRAC meeting, May 31, 2022. Photo credit: Joney W/Gabriel

In coordination with the national AMR secretariat of MOH, MTaPS supported the 39th meeting of NAMRAC, which was attended by 26 (4 female) NAMRAC members and invited guests. The agenda

focused mainly on the implementation status of the MPTF project and the six-month performance report of AMR stakeholders. Ethiopia was one of five countries that was granted the AMR-MPTF project based on a proposal submitted with support from MTaPS in 2020. The national AMR stakeholders' performance reports indicated substantial progress across various stakeholders, specifically at the national level.

RESULT AREA 2: IPC

Activity 2.2.1: Update and finalize IPC training materials for HCWs and support staff

In Q3, MTaPS supported training of IPC TOTs (April 27-May 8, 2022) for 28 professionals (4 female) drawn from MOH, regional and zonal health bureaus, and hospitals (public and private). Of the target (40) planned for PY4 (MEL indicator – IP 2), this represents a 70% achievement. The purpose of the training was to create a pool of well-trained professionals and use them to further cascade basic training on IPC. The trained professionals will also serve as focal points at regional and zonal levels. MTaPS also supported MOH to finalize a draft IPC training manual for health centers. The IPC participants' manual, facilitator's guide, course syllabus, participant assessment questions, and training materials were finalized and submitted to MOH for design and formatting.

Activity 2.3.1: Continue to support MOH and RHBs to monitor IPC improvement in selected health care facilities by using IPCAF and national IPC monitoring tool

Early in Q3, MTaPS assisted MOH to finalize the national "facility-level IPC assessment tool" (IPC-FLAT). The tool is designed for health care facilities to assess their IPC program and practices and it is aligned to the WHO guidelines. The tool is currently deployed in MTaPS-supported HFs to conduct IPC baseline assessment. In addition, MTaPS helped MOH conduct a repeat national-level IPC program assessment using the WHO IPCAT2. The findings of the assessment are being compiled by MTaPS. Once completed, recommendations on areas for improvement will be provided to MOH.

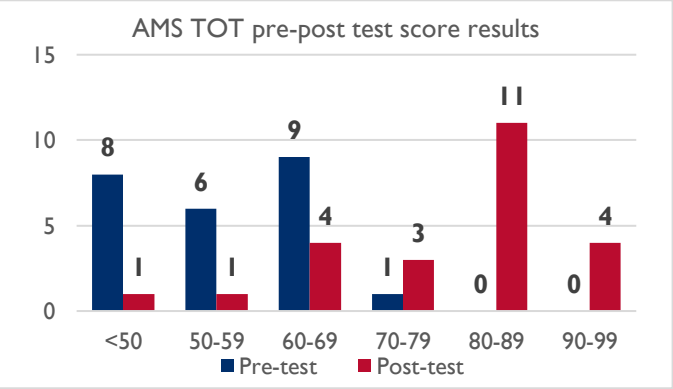
RESULT AREA 3: OPTIMIZE USE OF ANTIMICROBIAL MEDICINE IN HUMAN AND ANIMAL HEALTH AND AGRICULTURE

Activity 3.1.1: Support the finalization and dissemination of the revised STGs and EML

In Q3, MTaPS—in collaboration with MOH/PMED—organized a workshop to review AWaRe categorization in the revised STGs for general hospitals developed in PY2 with MTaPS' support. The review of STGs found no significant deviation from the WHO 2021 AWaRe categorization principles. Hence, the review recommended printing of the STGs for distribution to end users.

3.2.1: Continue to support training of HCPs on AMS

In collaboration with MOH/PMED, MTaPS organized a workshop to prepare AMS training materials for HCPs. At the end of the workshop, a training package consisting of participant manual, trainers' guide, and PowerPoint presentations was developed. The training package was tested in a TOT where 24 health professionals (25% female) drawn from hospitals and RHBs participated. At the end of the training, participants



developed draft action plans. The feedback from participants and the pre- and post-test results indicated the TOT was highly effective. More than half of the trainees (62.5%) scored 80% or above on the post-test.

BEST PRACTICES/LESSONS LEARNED

During PY2, MTaPS provided support to MOH and targeted hospitals to introduce the use of WHO's IPCAF tool. In PY4, the tool was further reviewed to align it with the national IPC reference manual. Consequently, MOH adapted and used the IPCAF as a national facility-level IPC assessment tool to identify gaps in IPC and develop and implement interventions. This decision also indicates the recognition and gradual uptake of MTaPS recommendations by MOH, which is a key contributor to sustainability and continuous improvement of IPC program/practices through evidence-based practices.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Support MOH and national AMR MSC stakeholders to develop sector-specific and regional operational plan based on the revised national AMR prevention and containment strategic plan, including M&E framework	July 2022
Activity 1.1.2: Continue to support PMED to organize effective MSC through regular meetings of AMR stakeholders, including animal health and environmental protection	August 2022
Activity 2.2.1: Update and finalize IPC training materials for HCWs and support staff based on revised IPC guidelines	August 2022
Activity 2.3.1: Continue to support MOH and RHBs to monitor IPC improvement in selected health care facilities by using IPCAF and national IPC monitoring tool	July–September 2022
Activity 3.1.1: Support the dissemination of the revised STGs and EML	July 2022
Activity 3.2.1: Continue to support onsite training of HCPs on AMS at the five public and private HFs	August 2022
Activity 3.5.1: Strengthen AMS implementation in the five targeted HFs	July–September 2022

Table 12. Quarter 3, FY22, Activity Progress, Ethiopia

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.2: Continue supporting PMED to organize effective MSC through regular meetings of AMR stakeholders, including animal health and environmental **Activity Description:** Provide technical support to strengthen the NAMRAC and its AMS and IPC TWGs and to strengthen the capacity of six RHBs through review of their action plans	5.4	1.1		MTaPS provided technical support in a "national One Health AMR stakeholders' engagement and communication strategy workshop" organized by the OIE, supported organization of the 39th OH NAMRAC meeting, and helped PMED/MOH conduct its annual performance review meetings.
Activity 2.2.1: Update and finalize IPC training materials for HCWs and support staff based on revised IPC guidelines **Activity Description**: Following the revision of the national IPC reference manual, with support from MTaPS, MOH has planned to revise the corresponding IPC training materials	5.4	2.2		MTaPS provided TA to finalize the IPC training manual and materials. Accordingly, the IPC training participants' manual, training facilitator's guide, course syllabus, training participants' assessment questions, and training materials (PPTs) were finalized and submitted to MOH for design and formatting.
Activity 2.3.1: Continue to support MOH and RHBs to monitor IPC improvement in selected HFs by using IPCAF and the national IPC monitoring tool **Activity Description**: MTaPS, during PY2, supported MOH and selected HFs to improve IPC practice by identifying gaps and designing improvement plans. In PY4, MTaPS is continuing to support IPC improvement activities	5.4	2.3		MTaPS provided TA to MOH to finalize the "facility-level IPC assessment tool" designed to be used by health care facilities to assess their IPC program and practice. The tool is aligned to WHO's guidelines on the core components of an IPC program at a health care facility level and the revised national IPC guideline.
Activity 3.1.1: Support finalization and dissemination of revised STGs and EML **Activity Description:** Support dissemination of the STGs and STGs implementation manual after technical review, design, and printing	5.4	3.1		MTaPS supported review of AWaRe categorization of the revised STGs which indicated consistency with the 2021 WHO AWaRe classification. MTaPS also helped PMED/MOH conduct its annual performance review meeting where AMR was discussed as one of the key agenda items.

G. INDONESIA

OVERVIEW

The overall goal of MTaPS in Indonesia is to build Indonesia's pharmaceutical systems by strengthening their ability to institutionalize transparent and evidence-based decision-making, build their capacity to use robust information to define and cost pharmaceutical coverage, promote pharmaceutical expenditure tracking to improve purchasing value, and strengthen pharmaceutical sector governance.

CUMULATIVE PERFORMANCE TO DATE

MTaPS Indonesia received approval from USAID on May 18, 2022, and MOH on June 3, 2022, for the revised workplan for the period from June 2022 to May 2023. During this quarter, under Objective 1, MTaPS Indonesia reached three primary research milestones, finalized a literature review, and provided recommendations for interventions to improve the HTA topic selection process. For Objective 2, MTaPS compiled a pharmaceutical expenditure report for 1,630 pharmaceutical wholesalers in Indonesia (about 70%).

QUARTER 3 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)

After a request from the MOH, MTaPS Indonesia conducted a literature review and documented recommendations from stakeholders on the HTA topic selection process. A total of 64 people (42 female, 22 male) from the MOH, the HTA committee, universities, and health professional organizations participated in the research through activities that included an online survey, FGD, and interviews. Results from the research showed that stakeholders trusted and accepted decisions made by the MOH-commissioned panel of academia, which comprises experts from various fields. However, internally, the panel had challenges in reaching consensus due to a lack of operational definition criteria and a lack of scoring indicators for topic prioritization. Furthermore, simplifying topic proposal requirements and increasing access to wider parties so that stakeholders are empowered is necessary to improve the quality of HTA proposals. From these findings, the recommendations to strengthen the HTA topic selection process were as follows:

1. Improve the HTA topic selection process using MCDA
2. Submit HTA proposals digitally through the Pusjak PDK, MOH website
3. Increase publication and transparency

Support to implement these recommendations was incorporated into the MTaPS work plan for year 2 of the activity (June 2022–May 2023). A meeting to submit the results was held on April 28, 2022. Based on discussion of findings from MTaPS' literature review of other countries' experiences, an important outcome was that it is necessary to review and revise the assessment of topic selection category in the MOH Regulation No. 51/2017.

Pusjak PDK facilitated a coordination meeting between Pusjak PDK, MTaPS, and the WB on June 10, 2022. The three organizations agreed to collaborate on the revision of Permenkes 51/2017 regarding HTA and to include the guidelines which are annexes to the Permenkes. The WB team is focusing on finalizing the HTA guide as a whole and ensuring that the HTA guide contains requirements for a disbursement-linked indicator (DLI). MTaPS will support technical writing for the principles that must be included in the HTA guide, especially in the topic selection and appraisal section. MTaPS will continue to support the manual process of HTA topic selection as the timeline for developing the MCDA tool is short. However, MTaPS expects that its efforts from May 2022 to July 2022 will mean that pre-assessment criteria, operational definitions, and scoring can be ready in August 2022 and can be used for the HTA topic selection process in September 2022.

Activity 1.1.2: Build capacity of key stakeholders on HTA methods

MTaPS conducted a demand survey and found that among the main interests of the Indonesian participants—represented by government, academia, and NGO stakeholders—are RWE and MCDA. Therefore, MTaPS has been carrying out several activities as follows:

- **Capacity building in HTA on the use of Transtuzumab for early breast cancer.** MTaPS provides hands-on learning support to Pusjak PDK, InaHTAC, and researchers on completing HTA using advanced methods of MCDA and RWE. This is achieved through collaboration on research proposal design, analysis, and the final report. MTaPS proposed to Pusjak PDK to organize a meeting with MTaPS, Pusjak PDK, and an HTA study team on the use of Transtuzumab for early breast cancer. An MCDA/RWE exercise for an HTA study on Transtuzumab drug use for early breast cancer need not wait for the research team (University of Gajah Mada) to finalize the protocol. The exercise can be an analysis conducted by a different Pusjak PDK team. MTaPS will work with Pusjak PDK to develop their own protocol for an MCDA/RWD rapid review of Trastuzumab to support the research team.
- **Webinar on Deep Dive of HTA supported by CGD/WB with MTaPS.** MTaPS co-hosted this event with WB, CGD, and iDSI.

As CGD had expressed interest in co-hosting RWE capacity-building activities, MOH requested that CGD deliver a two-hour workshop on RWE for HTA on June 14, 2022. This was a targeted capacity-building event focused on MOH, InaHTAC, HTA agents, potential research agencies, and HTA users, including the national health insurance company (BPJS), and so and will not be publicly livestreamed.

RWE was selected as the key topic of interest by Indonesian participants. About 50 participants attended from the MOH, BPJS, the HTA committee, HTA agents, and others. Materials can be found at this link: https://drive.google.com/drive/folders/10ZpU4d7ZnM91G-blOb5yplqFD_rgmwZP?usp=sharing

Activity 1.1.4: Strengthening the appraisal for the HTA committee, InaHTAC

In Indonesia, appraisals are used to review a study, while in other countries an HTA appraisal is used to select the health technology to be used. It is thus necessary to deepen the need for HTA appraisals in Indonesia. To this end, an initial discussion on the HTA appraisal landscape was held on April 20, 2022. A result of the discussion was that MTaPS will follow up on the needs and scope of the HTA appraisal with Pusjak PDK. According to MOH Regulation 51/2017, the HTA appraisal process is conducted after an HTA study is implemented. In the Indonesian context, the HTA appraisal is carried out in several

steps until a decision by Pusjak PDK is issued that the results of an HTA study can be accepted. Pusjak PDK then issues a memorandum of policy recommendation to the Minister of Health. MTaPS was asked to help Pusjak PDK and InaHTAC review the HTA appraisal process and provide recommendations to improve the process until it is arranged. The MTaPS team will conduct a literature review and document recommendations regarding HTA appraisal through interviews with Pusjak PDK and InaHTAC.

Activity 1.1.5: Writing the HTAsiaLink Digest and Publication

MTaPS supported MOH to implement the 9th HTAsiaLink Conference from October 11 to 13, 2021, in Indonesia. The follow-up activities included preparing a digest and publication on the event to submit to academic journals. MTaPS is also working on its literature footprint in the Asia region, especially in Indonesia. In June 2022, Pusjak PDK asked MTaPS to finalize the digest of the 9th HTAsiaLink Conference. MTaPS plans to print and digitize it in July/August 2022 to distribute to stakeholders. MTaPS is also working with partners to develop articles to submit to scientific journals on HTA issues. One article is on cooperation among HTAsiaLink member countries in the form of regional hubs for mutual learning and information sharing. Another will be about countries' cooperation in the implementation of HTA studies and advocacy so results of HTA studies can help improve health policies. A writing team was formed consisting of MTaPS, Pusjak PDK, and the University of Indonesia.

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

Activity 2.1.2: Support the HA team to compile secondary pharmaceutical expenditure data at the national level

Pharmaceutical expenditure tracking activity was conducted in Indonesia for the first time. MTaPS was the first organization to help the government in this regard. At the end of June 2022, MTaPS finished initial calculations of a pharmaceutical expenditure data set of finished medicines distribution. The data set was derived from the e-report pharmaceutical wholesalers (PBF) data set which includes about 70% of wholesalers in Indonesia in 2021. From this information system, it was found that around IDR 154 trillion (USD 10.2 billion) of medicines were distributed by wholesalers to several levels of distribution points ranging from the Health Office, hospitals, pharmacies, drug stores, clinics, and health centers. In addition, the team entered generic data into the pharmaceutical expenditure database through manual identification according to each Drug Distribution License Number (NIE) code. Later, the NIE can be classified into the Anatomical Therapeutic Chemical (ATC) code to identify disease classification. As a follow-up, MTaPS will calculate the overall pharmaceutical expenditure through various approaches and consultations with experts to:

- Identify amount of drug distribution in the 30% of PBFs who have not reported to PBF's e-report
- Estimate pharmaceutical expenditures at the consumer level through a margin calculation in accordance with the highest retail drug prices policy; MTaPS will also continue to analyze three data sets from the e-licensing information systems, e-bpom and e-was, as material to complete data cleaning and triangulation of pharmaceutical expenditure.

The MTaPS team has not been able to compile the aggregate figure for national pharmaceutical spending up to 100% as of the end of June 2022. This is due to the limited time the program had to work on the calculation; the receipt of the first data set was on May 13, 2022, giving the program only six weeks to complete the calculation of pharmaceutical expenditure. Furthermore, the data set received by the team

is extremely large with up to 12,000 NIE codes and about 1.6 million rows. The size of the data set presents several challenges, especially in the data cleaning process, given the differences in the number of packages (volume) and price differences, which can vary greatly for the same drug. Thus, the data cleaning process takes time for clarification from Ditjen Farmalkes and/or reference materials. At a meeting with Pusjak PDK, MTaPS was asked to compile a brief report on the progress achieved, to be submitted to the Head of Pusjak PDK the first week of July 2022. The report will include a follow-up plan and timeline for finalizing aggregate figures for pharmaceutical expenditure. MTaPS expects it will be able to complete the total aggregate pharmaceutical expenditure calculation by the end of July 2022.

BEST PRACTICES/LESSONS LEARNED

- MTaPS introduced new methods and approaches to MOH, namely, the use of MCDA for HTA topic selection and pharmaceutical expenditure tracking. Previously these had only been discussed in Indonesia. MTaPS Indonesia brought in experts in the field and started to use these advanced approaches. Its efforts were welcomed, although it took about five months for the buy-in process from program implementers and leadership at the MOH, InaHTAC, and the national HA (NHA) team.
- Original work plan versus new MOH needs. Entering 2022, there was a change in the nomenclature at the MOH, one of which was the change of the PPJK institution to Pusjak PDK. In addition, several priority shifts in the MOH's agenda have meant additional needs for technical assistance from development partners, including MTaPS. There is a new requirement for MTaPS, namely, to develop manuals for HTA topic selection and HTA assessment and to scale up capacity building in pharmaceutical expenditure from one district to the national level. It is challenging to manage the changing demands based on existing MTaPS resources. However, USAID, Pusjak PDK, and MTaPS ultimately agreed on activities in accordance with MOH needs and stated it in the approved work plan revision. USAID/Indonesia approved the MTaPS Indonesia work plan revision on May 18, 2022. The MOH approved the revised work plan on June 3, 2022.
- A small country team is a unique challenge in implementing the MTaPS work plan activities. Issues that the team supports are large and there are strategy problems requiring activities that involve many people and institutions. Technical collaboration can run well through frequent communication between the MTaPS home office and the country team. In addition, management support from the home office for program management, finance, procurement, and HR has enabled the program implementation to run optimally.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
OBJECTIVE 1	
MCDA tool, populated with weights and operational definition as agreed by stakeholders	September 30, 2022
HTA topic selection input to the WB-led revision process of the HTA guidelines	September 30, 2022
Report of findings from HTA appraisal landscaping activity, literature review, and interviews	September 30, 2022
HTA appraisal input to the WB-led revision process of the HTA guidelines	September 30, 2022
HTAsiaLink conference digest	August 30, 2022
A maximum of three topics from the HTAsiaLink conference to be submitted for publication in scientific journals	September 30, 2022

OBJECTIVE 2	
Completed compilation of pharmaceutical spending data at the national level and preliminary aggregate results	July 30, 2022

Table 13. Quarter 3, FY22, Activity Progress, Indonesia

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Strengthen the topic selection process for InaHTAC	5.4.1, 5.4.2		N/A	Delphi kickoff for developing HTA topic selection using MCDA on June 29, 2022. The meeting was attended by InaHTAC members, representatives from BPJS, Directorate General of Farmalkes, Pusjak PDK, MTaPS, and USAID. Presentation from MTaPS regarding the planned use of the Delphi method. Delphi is a technique for gathering information and exploring opinions from a group that has various perspectives through staged surveys and focused discussions. InaHTAC and Pusjak PDK agreed that this approach should be implemented immediately.
Activity 1.1.2: Build capacity of key stakeholders on HTA methods	5.4.1			MTaPS proposed to Pusjak PDK on April 20, 2022, to organize a meeting between MTaPS, Pusjak PDK, and an HTA study team on Transtuzumab for early breast cancer. MTaPS co-hosted an event with WB/CGD/iDSI on June 14, 2022. This was a targeted capacity-building event focusing on the MOH, InaHTAC, HTA agents, potential research agencies, and HTA users, including BPJS, so it will not be publicly livestreamed.
Activity 1.1.3: Support HTAsiaLink 2021	5.4.1, 5.4.6, 5.4.7		N/A	Activity completed in October 2021
Activity 1.1.4: Strengthen the appraisal process for the HTA committee, InaHTAC			N/A	The initial discussion on the HTA appraisal landscape was held on April 20, 2022, and the result was the MTaPS team needs to follow up on the needs and scope of HTA appraisal with Pusjak PDK. Based on MOH Regulation 51/2017, the HTA appraisal process is conducted after an HTA study is implemented.
Activity 1.1.5: Writing the HTAsiaLink conference digest and publications				In June 2022, Pusjak PDK asked MTaPS to finalize the digest of the 9th HTAsiaLink Conference. It is planned for printing in July/August 2022. It will be distributed to stakeholders, including in electronic form. Related to the writing of articles to be published in scientific journals, articles are being developed regarding cooperation among HTAsiaLink member countries in the form of regional hubs for mutual learning and sharing of information, and cooperation in the implementation of HTA studies and advocacy so that the results of HTA studies can help change policies in the health field for the better. A writing team has been formed consisting of MTaPS, Pusjak PDK, and the University of Indonesia.
Activity 2.1.1: Landscaping of pharmaceutical expenditure tracking data sources				Activity completed in previous quarter(s).

Activity 2.1.2: Support the HA team to compile secondary pharmaceutical expenditure data at the national level				As of the end of June 2022, MTaPS finished compiling the initial calculation of pharmaceutical expenditure from the data set of finished medicines distribution from the e-report PBF data set, which includes about 70% of 2,459 wholesalers in Indonesia in 2021.
Activity 2.1.3: Organize, map, and analyze national-level pharmaceutical expenditure data				To be completed in November 2022
Activity 2.1.4: Build capacity of the HA team to compile pharmaceutical expenditure data				To be completed in May 2023

H. JORDAN

FIELD SUPPORT

OVERVIEW

MTaPS Jordan's overall goals are to improve pharmaceutical-sector governance, institutional capacity for pharmaceutical management and services, patient safety, and AMR. To address the needs of the pharmaceutical sector in Jordan, MTaPS adopted USAID's PSS approach. The method shows how governments, providers, and community members all play important roles in reinforcing key system functions and how the entire strategy must be guided by evidence-based decision making to achieve its objectives.

CUMULATIVE PERFORMANCE TO DATE

MTaPS Jordan has conducted rapid IPC assessments of 30 MOH and private hospitals, built the capacities of nearly 1,300 HCPs, and developed an eLearning module on COVID-19 and national COVID-19 IPC guidelines to increase accessibility during the pandemic. With strong leadership from local counterparts, MTaPS provided technical and logistic support, culminating in legislative and institutional reform governing procurement practices. MTaPS successfully expanded program activities, not only to include supply chain, but also to engage RMS in IPC/AMR interventions. Technical support to ongoing COVID-19 VSS resulted in several timely reports and recommendations to MOH.

QUARTER 3 ACHIEVEMENTS & RESULTS

Through Q3, four comprehensive technical reports covering COVID-19 VS were completed and submitted to MOH's National Pharmacovigilance and Covid-19 Vaccines Adverse Events Monitoring Committee (NPVC). The supply chain assessment initial report was drafted and presented to counterparts for feedback and finalization, and procurement activities are progressing with the Comprehensive Procurement Training Curriculum. MTaPS engaged RMS and developed a comprehensive AMS program (ASP), and implementation will commence in Q4.

OBJECTIVE 1: STRENGTHEN PHARMACEUTICAL-SECTOR GOVERNANCE

Activity 1.1.1: Coordinate technical discussions among stakeholders enabling legislative and regulatory reform for vaccine procurement

Although the committee was not reformed after changes in MOH's organizational chart, MTaPS continued working with its TWGs on implementing the program's procurement activities.

Activity 1.2.1: Develop implementation guidelines for the framework agreement

Several rounds of technical discussion with stakeholders were needed in Q3 to fully integrate their feedback and the local context into the guidelines and to bring the document to the appropriate technical level for the intended audience.

The FAIG were due in Q2. The program is late in its delivery because of the lack of appropriate technical resources as discussed with USAID Jordan. Steps forward have been planned with completion of the guidelines and training material in Q4.

Activity 1.2.2: Develop instructions for the procurement negotiation

In collaboration with GPD, a draft document was prepared and will be further discussed as part of the training curriculum material with the GPD director in Q4.

Activity 1.3.1: Support legislative reform to facilitate market entry and increase the number of suppliers competing for pharmaceutical tenders

In Q3, MTaPS drafted an assessment report on the procurement of WHO-prequalified pharmaceuticals, including vaccines, that are not registered in Jordan. The draft was submitted to GPD for further discussions during which MTaPS proposed two potential scenarios to facilitate market entry. A technical workshop with all relevant stakeholders will be organized in Q4 to discuss the draft and develop implementation steps.

Activity 1.3.2: Improve the monitoring of fair competition in medicine and vaccine procurement

With the Competition Directorate of the Ministry of Industry and Trade leading, and in collaboration with the GPD, MTaPS continued development of the "fair competition practices" manual and training material in Q3. The training material will be finalized and integrated into the comprehensive training curriculum, and the Competition Directorate will participate in training the target audience.

Activity 1.3.3: Build the capacity of stakeholders on procurement best practices

The MTaPS Comprehensive Procurement Training Curriculum includes three modules:

- Module I: Public Procurement Best Practices
- Module II: GPB Overview
- Module III: Focused training on implementation of FAs, negotiation skills, and fair competition

Module I will cover the pillars of procurement best practices, including planning and strategy, market intelligence, selection of procurement methods, and contract award and management.

Currently, the GPD provides some orientation to its staff on the GPB, and they requested support in expanding the training with MTaPS support. Accordingly, the GPD will lead the training of module II with support from MTaPS, and all the resulting material will be used by the GPD in future trainings.

The third module will cover training in selecting and implementing FAs and negotiation skills will be conducted using practical examples and local resources. Ensuring fair competition will be conducted in coordination with the Competition Directorate. Because the material was developed with their full participation, counterparts will be able to use the training material in the future and will have the capacity to update the material as needed. Training is expected to start in Q4.

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

Activity 2.1.1: Improve MOH's ability to provide essential medicines and family planning commodities during national emergencies

The related MOH counterparts have changed this activity and it will be removed from the work plan.

Activity 2.2.1: Strengthen supply chain in MOH for pharmaceuticals and vaccines

In Q3, MTaPS completed gathering data and information for the supply chain assessment in coordination with PSD leadership, technical departments, distribution points, and HFs. Initial findings were prepared and summarized by MTaPS, and presented for discussion, feedback, and guidance in a technical workshop held on June 16, 2022. Full attendance from the PSD was recorded, including its leadership, and USAID attended as well.

Results from the workshop's technical discussions are being integrated into the draft supply chain assessment report. In Q4, MTaPS will discuss and finalize the report with PSD counterparts, prioritize technical recommendations, and prepare implementation plans. Based on the success of the technical workshop, USAID Jordan requested MTaPS present the initial findings of the assessment to the mission. A meeting will be coordinated in Q4.

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

Activity 3.1.1: Assess funding sources and modalities for vaccine procurement (continuation from FY21)

Activity will commence in Q4.

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

Activity 4.1.1 Improve the rational use of antibiotics at select health facilities according to the National Action Plan on AMR (NAP-AMR) (continuation from FY21)

With technical guidance from MTaPS, MOH decided that hospital-level work will focus on developing protocols for surgical prophylaxis—hernia, appendectomy, and cesarean section—in only two hospitals. For the primary health care center (PHC) level, work will focus on developing protocols for upper respiratory tract infections and urinary tract infections.

During Q3, MTaPS developed and submitted a technical proposal for the comprehensive ASP for Al Hussein Hospital ICU to USAID Jordan. USAID approved the proposal and initiated official communication with RMS informing them of the collaboration. The core clinical interventions outlined in the proposal include reviewing, updating, and/or developing protocols for early differentiation between infection and colonization, optimal microbial culture specimen collection and transportation, and treatment of specific ICU infections, including sepsis workup. Technical workshops to implement the ASP are scheduled for Q4.

In Q3, MOH re-established the AMR Steering Committee and invited MTaPS to attend the committee's first introductory meeting. The MOH national AMR focal point then requested MTaPS' support in reviewing the committee's TOR. MTaPS reviewed the TOR and provided feedback.

Activity 4.1.2 Support the AMS committee in conducting a study of the effect of the COVID-19 pandemic on antimicrobial use in tertiary hospitals

In finalizing the study, MTaPS requires technical input and explanation of data from OH counterparts; this feedback is still pending.

Activity 4.2.1 Improve governance and organizational capacity of the multisectoral Advisory Committee for Infection Prevention and Control (ACIPC) (continuation from FY21)

In collaboration with the head of the IPC Department at MOH, MTaPS provided technical support to committee members to develop a National Policy to Combat Multi-Drug Resistant Organisms (MDROs). The head of the IPC Department asked MTaPS to support the orientation and training of IPC focal points across all sectors (MOH, RMS, and private) on the policy, and MTaPS is currently recruiting a consultant to conduct the training in Q4.

Activity 4.2.2 Support the multisectoral ACIPC in overseeing the implementation of IPC interventions according to the NAP-AMR (continuation from FY21)

Based on recommendations from the ACIPC, and to standardize IPC training across all health sectors, MTaPS, in coordination with the MOH IPC Department, collaborated with HCAC to provide a certified IPC course for IPC focal points from MOH hospitals and HADs. MTaPS is finalizing the contractual steps with HCAC, and the training is scheduled to start at the end of July.

Activity 4.3.1 Support MOH in raising awareness on AMR and rational use of antibiotics (new)

MTaPS received official approval from MOH and the Ministry of Education on the planned Communication and Awareness Intervention for School Students (CASS). MTaPS then developed materials for CASS based on the latest evidence and created posters for students and information pamphlets for parents to be distributed during AMR awareness sessions. In Q4, MTaPS will coordinate with MOH School Health Directorate (SHD) to nominate health educators from HADs at each governorate to deliver the sessions at the selected schools.

Activity 4.3.2 Support MOH in raising awareness and promote reporting of ADRs, including COVID-19 vaccine safety

This activity will be cancelled.

As reported in previous quarterly reports, the main counterpart for this activity–the JFDA–is conducting similar activities with WHO. Therefore, this activity will be cancelled for Y4, and opportunities will be considered in the next work plan.

Activity 4.4.1 Support the national surveillance of AEFIs with COVID-19 vaccines (continuation from FY21)

MTaPS developed, submitted, and presented to NPVC a comprehensive and cumulative report for the safety surveillance data from August 2021 to March 2022. NPVC agreed on disseminating key findings from the safety surveillance in the form of health communication messages to encourage vaccine uptake pending approval from the minister of health. In preparation, MTaPS has drafted key messages to be shared with NPVC in Q4.

BEST PRACTICES/LESSONS LEARNED

Planned AMR activities with MOH were significantly delayed because of perceived duplication with other agencies, in this case WHO. Continuous dialogue with all stakeholders is essential to ensure that all contributors understand the technical support and its dynamics at the implementation level. In Q3, MTaPS continuously supported diligent understanding of implementation to ensure complementarity

instead of duplication. MOH counterparts eventually realized that these opportunities exist and are now continuing AMR activities with MTaPS.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Conduct the RMS technical workshops for the comprehensive ASP for Al-Hussein Hospital ICU	July - August 2022
Conduct the HCAC certified IPC course for IPC focal points from MOH HFs	July - September 2022
Conduct a TOT for trainers at HADs on the developed communication and awareness materials for CASS	September 2022
Prepare all IEC materials for the CASS program	August 2022
Conduct orientation and training sessions on the National Policy to Combat MDROs for IPC focal points from all health sectors (MOH, RMS, and private)	July – September 2022
Complete and submit the supply chain assessment report	August 2022
Initiate training for the MTaPS Comprehensive Procurement Training Curriculum	September 2022

Table 14. Quarter 3, FY22, Activity Progress, Jordan – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity: Improve the rational use of antibiotics at selected HFs according to the NAP-AMR. **Activity Description:** Update antimicrobial prophylaxis and treatment guidelines for selected hospitals and pilot health care centers.	4.1		NA	MTaPS will conduct technical workshops for the RMS ASP in Q4. MTaPS will meet with the PCPD to follow up on its technical recommendations for the RUA program at MOH facilities.
Activity: Improve governance and organizational capacity of the multisectoral ACIPC. **Activity Description:** Update the ACIPC TOR and support committee meetings.	4.2		NA	MTaPS continued its technical, logistic, and administrative support to the ACIPC sub-committee and will follow up on the re-establishment of the ACIPC next quarter.
Activity: Support the multisectoral ACIPC in overseeing the implementation of IPC interventions according to the NAP-AMR. **Activity Description:** Develop the national IPC program with implementation plan.	4.2		NA	MTaPS facilitated two meetings (June 9 and June 26, 2022) to review and discuss the drafted National Policy to Combat MDROs. MTaPS is finalizing contractual steps with HCAC to provide certified IPC training for MOH and RMS IPC focal points.
Activity: Support the MOH HCAD in raising awareness on AMR and rational use of antibiotics. **Activity Description:** Conduct AMR awareness sessions for school students.	4.3		NA	MTaPS will coordinate with MOH SHD to nominate health educators from HADs and conduct a TOT session for the selected health educators in preparation for delivering the AMR awareness sessions.
Activity: Support MOH in raising awareness and promoting reporting of ADRs, including COVID-19 vaccines safety. **Activity Description:** Raise awareness on safety of COVID-19 vaccines.	4.3		NA	This activity will be cancelled.
Activity: Support the national surveillance of AEFIs with COVID-19 vaccines. **Activity Description:** Produce comprehensive COVID-19 VSS reports.	4.4		NA	MTaPS submitted two reports, one for January to March 2022. The second one was a cumulative report for August 2021 to March 2022.

I. KENYA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

MTaPS' goal in Kenya is to slow the emergence of AMR and prevent the spread of resistant infections. To achieve this goal, MTaPS Kenya is supporting three result areas in the AMR action package: optimizing the use of antimicrobials through AMS, strengthening IPC practices, and strengthening MSC on AMR through the NASIC and CASICs OHP.

The activities for PY4 are built on the work done in PY1, PY2, and PY3. MTaPS will focus on strengthening the core governance structures for AMR stewardship at the national level (through the NASIC and its IPC and AMS TWGs), county level (through focus county AMS and IPC TWGs), and HFs at different levels (through HF-based AMS and IPC committees in MTaPS-supported facilities) with membership drawn from the public, private, and faith-based sectors. Use of a structured CQI approach with ongoing mentorship ensures that national, county, and HF plans are implemented as envisaged. MTaPS works through champions already identified at the national level and in counties to package and disseminate the standardized AMS and IPC interventions, promote cross-fertilization of ideas, and support sharing of best practices. Targeted capacity building to address county- and facility-specific gaps, implemented activities jointly prioritized by counties and HFs, and a CQI approach ensure that sustainable AMR programs are built at the HFs for control of HCAIs, AMR containment, and improved patient safety.

CUMULATIVE PERFORMANCE TO DATE

Through its PY1, 2, and 3 work plans, MTaPS helped counterparts improve the country's JEE score by supporting 50% (31/62) of the benchmark actions. In improving the JEE score for MSC/AMR, MTaPS supported 75% (3/4) of capacity level 2, 50% (2/4) of capacity level 3, 100% (4/4) of capacity level 4 and 20% (1/5) of capacity level 5 actions. MTaPS is supporting these activities at both the national level and at the subnational/county level in its focus counties. Strengthening of the MSC structures at national (NASIC) and county (CASIC) levels, development and dissemination of standardized AMR communiques and bulletins to OH stakeholders, as well as development of the AMR NAP M&E framework are key activities supported by MTaPS. During PY4 Q2, the second NASIC AMR bulletin highlighting the WAAW 2021 activities was compiled and disseminated.

To help improve JEE scores for IPC, MTaPS supported 80% (4/5) of capacity level 2, 83% (5/6) of capacity level 3, 60% (3/5) of capacity level 4, and 0% (0/5) of capacity level 5 actions. MTaPS mainly focused on strengthening of IPC governance structures at national and county levels, development/review of the IPC guidelines in human health, application of IPC assessment tools, training of HCWs and monitoring implementation of IPC and WASH activities using a CQI approach in focus counties and HFs. 100% (20/20) of target HFs are implementing CQI to improve their IPC while 100% (20/20) can monitor their performance using standardized IPC tools to inform improvements. MTaPS IPC activities in Kenya are only within the human health sector. During PY4 Q2, a high-level IPC communique was developed and launched to give standard guidance on IPC activities at all levels of

implementation, and MTaPS supported IPNET Kenya to train HCPs in infection control using the online Extension for Community Healthcare Outcomes (ECHO) platform.

To help improve JEE scores for AMS, MTaPS supported 75% (3/4) of capacity level 2, 67% (4/6) of capacity level 3, 14% (1/7) of capacity level 4, and 14% (1/7) of capacity level 5 actions. MTaPS AMS interventions mainly focused on strengthening of AMS governance structures at the national level and in focus counties and HFs; review of the Kenya Essential Medicines List (KEML) to incorporate AWaRe categorization of antibiotics; development and dissemination of national AMS guidelines; development and dissemination of regulatory guidance to HCWs and the general public on optimal use of antimicrobials; development and implementation of 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 focus counties and HFs. MTaPS AMS activities in Kenya are also within the human health sector only. During PY4 Q2, MTaPS supported finalization of the Kenya National Medicines Formulary (KNMF.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

During Q3, in MSC, MTaPS supported finalization of the draft Kisumu CASIC work plan in a review meeting that had representation from the Agriculture, Irrigation, Livestock and Fisheries, and Environment departments and supported the first quarterly review meeting of Murang'a CASIC.

RESULT AREA 2: IPC

IPC activities supported by MTaPS included the revision of national IPC 2015 guidelines, development of MOH Patient and Health Care Worker Safety (PHCWS) division system indicators, training of TOTs on M&E system indicators, and the completion of costed CIPCAC action plans in two focus counties. For awareness and to support the integration of OSH activities within the IPC program, OSH sensitization was provided in Nyeri as well as CIPCAC quarterly meetings and key IPC, OSH, and WASH activities in focus HFs. Midterm assessments were conducted in four HFs in two counties to assess the effectiveness of IPC CQI interventions implemented after training, mentorship, and supportive supervision. To build human resource capacity, IPC CQI refresher training (54 participants: 32 female, 22 male), and 3 CMEs on surgical care bundle were conducted.

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

MTaPS supported two national AMS TWG meetings that saw the validation of a national PPS tool and supported Kisumu CASIC to incorporate AMS activities in its CASIC work plan. Furthermore, strengthening of AMS governance structures through MTC/AMS refreshers, PPS data collection, and an AMC/AMU sensitization training session were conducted in focus counties and HFs. In-service AMS CPD was provided in collaboration with IPNET-Kenya and the Pharmaceutical Society of Kenya (PSK). Midterm assessments on implementation of AMS CQI action plans were conducted in Murang'a County. Finally, MTaPS provided onsite mentorship to 16 hospitals and 2 community pharmacies in 3 focus counties (Kisumu, Murang'a and Nyeri) during supportive supervision visits. This will continue development of COEs for AMS through implementation of CQI and mentorship activities.

BEST PRACTICES/LESSONS LEARNED

- The OH approach is helpful in motivating the human health, animal health, and environmental sector players to address their priority activities. The CASIC review meeting held in Murang'a county showed that the human health sector was far ahead, which motivated the other sectors to try fast tracking their activity implementation as identified within their CASIC work plan.
- To build sustainable capacity, in-service AMS CPD training through professional associations is useful. This and other activities promote gender equity and inclusiveness as evidenced by increasing female participation in medical education and training activities.

ACTIVITIES & 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 Provide technical support for AMS TWGs and CASIC review meetings; support implementation of AMR NAP M&E tools; finalize Kisumu CASIC work plan; initiate support for the revision of the NAP-AMR; disseminate the CASIC orientation package to focus counties; support the launch of an annual AMR conference in Kenya	July–September 2022
Activity 2.1.1: Continue strengthening governance bodies for IPC at the national, county, and facility levels Support development of HAI training materials for national use; support dissemination and implementation of the National IPC M&E framework; support National IPC TWG and National IPC Advisory Committee (NIPCAC) meetings; disseminate IPC documents through various fora; continue technical support to CIPCACs and HF IPC committees	July–September 2022
Activity 2.2.1: Scale up a CPD- and re-licensure-linked in-service IPC training course through the relevant professional associations Conduct IPC CME training through professional associations to HCWs; support assessment of HCWs trained through virtual IPC/CPD courses; carry out targeted IPC refresher training based on identified gaps	July–September 2022
Activity 2.5.1: Continue support to county, sub-county, and facility-level IPC, OSH, and WASH activities Conduct quarterly supportive supervision and mentorship sessions in target HFs; conduct virtual performance review meeting with counties; provide TA during review of facility IPC CQI action plans; develop/review and distribute IPC, OSH, WASH SOPs and job aids in target HFs; lobby for support of facility IPC programs through the hospital management teams	July–September 2022
Activity 3.1.1: Continue strengthening AMS governance structures at national and county level Support the roll out of the validated national PPS tool; support implementation of AMS M&E tools to assess NAP-AMR; finalize development of the national AMC/AMU data collection tool	July–September 2022
Activity 3.1.2: Continue strengthening institutionalization of AWaRe categorization of antibiotics Printing, launch and dissemination of the KNMF; finalize development of AWaRe implementation guide; implement and disseminate National AMS training in-service curriculum	July–September 2022
Activity 3.2.1: Continue to strengthen and scale up health care human resource capacity for AMS through pre- and in-service trainings Continue to conduct quarterly online CPD session with professional associations; support the embedding of the pre-service AMS curriculum in learning institutions	July–September 2022
Activity 3.5.1: Continue support to county, sub-county, and facility-level AMS activities for sustainable capacity Conduct quarterly AMS supportive supervision and mentorship sessions; provide support to Kilifi County Referral Hospital to update and finalize their formulary list; ongoing support in monitoring AMS interventions in focus HFs; support focus HFs in collecting and analyzing PPS data	July–September 2022

Table 15. Quarter 3, FY22, Activity Progress, Kenya – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Continue strengthening the NASIC's capacity for coordination, policy direction, and M&E of the national AMR plan **Activity Description:** Support NASIC in implementing the AMR NAP M&E framework; support CASICs in four target counties	5.4	1.1		Supported two National AMS TWG meetings. Provided TA in the development of the OH Kisumu CASIC work plan in a review meeting with representation from the Agriculture, Irrigation, Livestock and Fisheries, and Environment departments with 11 participants (7 female, 4 male). Provided technical support to Murang'a CASIC to conduct their first quarterly review meeting attended by 22 participants (13 female, 9 male).
Activity 2.1.1: Continue strengthening governance bodies for IPC at the national, county, and facility levels for sustainable capacity **Activity Description:** Support development /review and dissemination of IPC documents; support to national IPC TWG, NIPCAC and CIPCAC activities; support establishment of IPC management and coordination structures at county, sub-county, and facility levels	5.4	2.1		Supported review of 2015 IPC guidelines. Provided technical assistance in development of MOH PHCWS Division indicators, and training of TOTs on IPC/AMS and M&E pilot for the PHCWS indicators. Supported finalization of costed CIPCAC action plans for Kilifi and Murang'a Counties to guide resource mobilization and implementation for their IPC programs. Fourteen participants (8 female, 6 male) attended the Nyeri CIPCAC meeting that included sensitization on OSH. Supported 10 HFs' IPC committee meetings in 2 counties.
Activity 2.2.1: Continue providing technical assistance to scale up a CPD- and re-licensure-linked in-service IPC training course through relevant professional associations **Activity Description:** Continue to roll out the IPC CPD course in collaboration with National Nurses Association of Kenya (NNAK) and other health professional associations	5.4	2.2		Provided technical assistance in training 29 trainers (19 female, 10 male) on IPC for re-licensure.
Activity 2.5.1: Continue support to county, sub-county, and facility-level IPC, OSH, and WASH activities for sustainable capacity **Activity Description:** Continue supporting the review and implementation of CQI IPC action plans by the counties and health care facilities	5.4	2.5		Technical support was provided for an assessment of Kilifi County's IPC and COVID-19 activities in two target HFs. Conducted supportive supervision, and onsite mentorship sessions reaching 80 HCWs (44 female, 36 male) in 10 HFs to monitor progress in IPC CQI action plan implementation. IPC midterm assessment completed in 4 HFs in Kilifi and Murang'a Counties. WASH-Facilities Improvement Tool (WASH-FIT) and OSH assessments done in 10 HFs in 4 counties (and 1 county-level assessment) to provide a baseline to measure future improvements.

Activity 3.1.1: Continue to strengthen national and county AMS governance structures **Activity Description**: Contribute to strengthening the monitoring system for AMC/U; offer technical assistance to national and county AMS TWG teams in implementing the AMS component of the NAP-AMR M&E framework	5.4	3.1		AMS/MTC refresher training was done in Malindi SCH (6 female, 4 male) and KNH (13 female, 9 male). PPS data collector training for Gertrude's Children Hospital (GCH) and Malindi SCH and a PPS sensitization training in Kilifi County were completed. A meeting with Kisumu CHMT was held to align support by MTaPS to its focus HFs in the county's action plan, provide feedback, and advocate for support for the identified gaps.
Activity 3.1.2: Continue to strengthen institutionalization of AWaRe categorization of antibiotics **Activity Description:** Develop and disseminate a national medicines formulary and practical guide on implementation of AWaRe categorization of antibiotics at national and county levels	5.4	3.1		Initiated support for the development of an AWaRe implementation practical guide for HFs.
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 delivery of the pre-service AMS curriculum and engage professional associations to roll out in-service AMS trainings	5.4	3.2		MTaPS facilitated an AMS webinar in collaboration with IPNET-Kenya and PSK. The training introduced diagnostic stewardship and its role in AMS (56 participants [30 female, 26 male] in the IPNET session, and 471 [220 female, 251 male] in PSK session). Facilitated the training of newly appointed MTC members in Malindi SCH and KNH, sensitizing the teams on the core components of MTC/AMS functions and highlighting key activities for the committee.
Activity 3.5.1: Continue to support county, sub-county, and facility-level AMS activities. **Activity Description:** In target counties and HFs, provide technical assistance in implementation of priority AMS interventions including monitoring AMU.	5.4	3.5		Supported 16 HFs and 2 community pharmacies in monitoring AMS CQI action plan implementation, through regular mentorship and supportive supervision with county AMS focal persons and MTC/AMS teams. Supported AMU/AMC data collection and AMS interventions in select HFs. Ongoing support to KNH Surgical Prophylaxis Guidelines. Facilitated Maragua SCH AMS poster development and IEC material dissemination in Kilifi County. Supported GCH AMS team in their first PPS and Malindi SCH in conducting a pilot PPS.

J. MALI

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

MTaPS Mali's strategy bases program implementation on guidance from WHO benchmarks for IHR capacities and other published best practices. The strategy seeks to collaborate with partners at the global, regional, and country levels to embed a monitoring and knowledge sharing element into planning and implementation 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 national MSC body on AMR and its IPC and AMS TWGs. In Mali, this MSC body is GCMN-RAM. MTaPS' AMR activities in Mali span the national, facility, and community levels.

CUMULATIVE PERFORMANCE TO DATE

During FY20, FY21, and FY22, MTaPS worked with GCMN-RAM to develop its TOR as well as those for its IPC and AMS TWGs. GCMN-RAM organized 6 coordination meetings out of the 12 initially planned to monitor progress on implementing Mali's NAP-AMR. During the MTaPS-supported GCMN-RAM meeting held on March 2, 2022, the AMR national focal point reported that three out of six of GCMN-RAM's TWGs were functional, including the two TWGs supported by MTaPS. The IPC TWG organized one meeting in 2021 to complete the WHO IPCAT2. The assessment results showed that Mali had a score of greater than or equal to 50% on four of the six IPC components assessed at the national level in 2021. During FY21, the AMS TWG also organized a meeting to assess AMS core components at the national level by using the checklist of essential national core elements for AMS programs in LMICs from the WHO practical toolkit for AMS programs in health care facilities in LMICs.[8] On March 2, 2022, this TWG held a meeting to review the implementation of activities listed in the NAP-AMR to optimize antimicrobial use. These coordination activities have enabled progress on the indicator "# of AMR-related in-country meetings or activities conducted with multisectoral participation," which is currently at 7 out of 8 meetings or activities planned for the current fiscal year.

MTaPS support in IPC has been focused on both the human and animal health sectors. In FY20, FY21, and FY22, MTaPS supported GCMN-RAM and DGSHP to train IPC committees in 16 HFs to use the WHO IPCAF, WHO HHSAF, and the COVID-19 scorecard tool. The IPC toolkit (IPC guidelines, training manual, job aids, videos, and SOPs) and the IPC committees' TOR are now available in the 16 facilities supported by MTaPS. Supervisory visits in FY22 Q1 and a virtual meeting carried out in Q2 with the facilities showed progress in the implementation of their action plans. The IPCAF tool found that three facilities reached the advanced level for IPC. In addition, MTaPS supported the establishment of an eLearning platform at three local training institutions. From October 2021 to March 2022, 108 participants were registered, and 12 obtained their course completion certificate from the eLearning platform. In the animal health sector, MTaPS collaborated with the National Directorate of Veterinary

[8] AMS program in health-care facilities in low- and middle-income countries. A practical toolkit. Geneva: World Health Organization; 2019.

Services (DNSV) and GCMN-RAM to develop IPC guidelines and an action plan for animal health using the results from the rapid assessment of hygiene and IPC in the animal health sector.

To support AMS in Mali, MTaPS supported DPM and ANEH to conduct DTC supervision visits to six MTaPS-supported HFs (Mali Gavardo Hospital, Dermatology hospital of Bamako, Hospital of Sikasso, Hospital of Segou, CSRéf of Bougouni, and CSRéf Koutiala) in FY22 Q2. Also, MTaPS supported DPM in holding a virtual meeting with 14 facilities. These monitoring activities have contributed to progress on the indicator "# and % of MTaPS-supported health facilities implementing CQI to improve AMS in the reporting period" which is currently at 88%. In addition to supporting the public health sector, 2 of the 16 facilities supported by MTaPS are from the private sector.

QUARTER 3 ACHIEVEMENTS & RESULTS

MTaPS supported GCMN-RAM in holding its quarterly meeting in June 2022. During the meeting, GCMN-RAM decided that Mali should achieve level 4 for the AMR technical area by the next JEE. This objective was set based on the results of the self-assessment carried out in 2022 by the IHR Secretariat in Mali. Additionally, MTaPS supported GCMN-RAM and DGSHP in using IPCAT2 for the third time to assess the IPC component at the national level. This assessment showed that the score of two components (multimodal strategies and monitoring/auditing of IPC practices, feedback, and control activities) improved since the assessment in 2021. This has contributed to progress on the indicator "IP4: Has the country improved performance in core IPC components at national level from baseline to follow up?"

MTaPS assisted GCMN-RAM and DGSHP in organizing a virtual meeting to monitor the implementation of IPC activities at 16 MTaPS-supported HFs. Additionally, MTaPS supported supervision visits to the HFs. The monitoring showed that the implementation rate of the facilities' IPC action plans varied from 20% to 90%, depending on the facility.

MTaPS supported DPM and ANEH in conducting DTC supervision visits to ten HFs (University Hospital Center of Point G, University Hospital Center of Gabriel Touré, the Hospital of Mali, Luxembourg Mother and Child Hospital, University Hospital Center of Kati, Hospital of Kayes, CSRéf of Kenieba, CSRéf of Yelimane, CSRéf of Kalabancoro, and CSRéf of Kangaba). Supervision visits revealed that the implementation rates of facility action plans varied from 11% to 80%. This activity has contributed to progress on the indicator "# and % of MTaPS-supported health facilities implementing CQI to improve AMS in the reporting period," which increased from 88% in FY22 Q2 to 100% in FY22 Q3.

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Provide technical and operational support to the National Multisectoral AMR Coordination Working Group (GCMN-RAM) and its two subcommittees (IPC and AMS).

MTaPS provided technical and financial support to GCMN-RAM to organize its quarterly meeting on June 30, 2022. Representatives from the key sectors of human health, animal health, agriculture, and environment attended the meeting.

MTaPS supported GCMN-RAM and DGSHP to hold a meeting for the IPC-TWG on June 24, 2022. During the meeting, IPCAT2 was used to assess the IPC component at the national level, which showed that two of the six components improved since the 2021 assessment and four components remained

the same. The assessment showed that component surveillance for HAI has remained consistently low because several aspects essential for surveillance are not defined by the national system: the national surveillance objectives, priority HAI for supervision, and monitoring methods. Also, there is no mechanism in place to collect and analyze the information and provide timely feedback to all stakeholders. The results of the assessment are shown in figure 2.

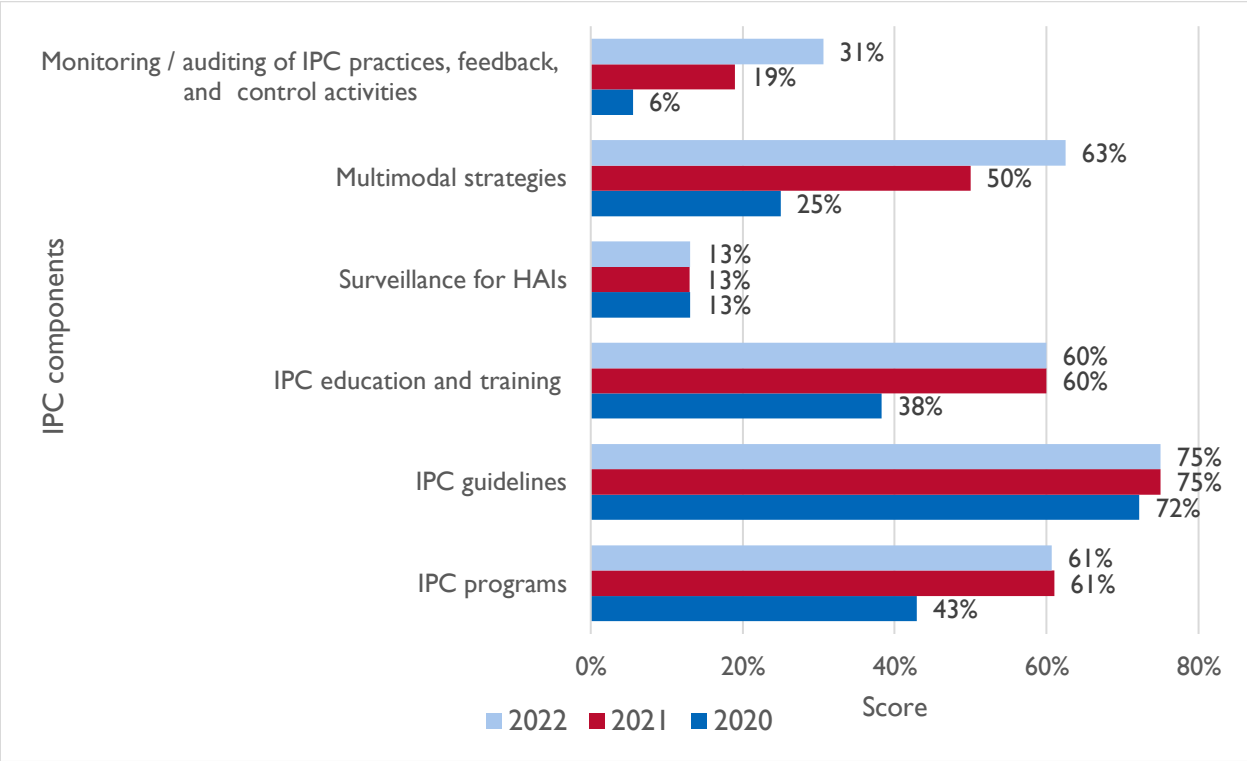


Figure 2. Results of IPCAT2 use

RESULT AREA 2: IPC

Activity 2.5.1: Support GCMN-RAM and DGSHP in monitoring implementation of IPC practices at HFs

Table 16. IPC supervision visit results

Number of assessments as recommended by WHO according to score	Score range	Capacity level	Number of health facilities		
			Baseline (July 2020 and Feb 2021)	Repeat assessment	
				Supervision visit (Sept 2021)	Supervision visit (June 2022)
Once a day	Score<50%	Inadequate	0	0	0
Two or three per week	50%<Score < 75%	Basic	8	2	0
Once a week	75%<Score	Advanced	8	13	16

During FY22 Q3, MTaPS supported the IPC-TWG through DGSHP to conduct supervision visits to 16 HFs. All the assessed facility IPC committees meet regularly and use the WHO scorecard for rapid assessments to monitor their IPC compliance on a weekly basis. Table 16 shows that 16 facilities were

assessed at the advanced level in FY22, compared to 13 facilities during the September 2021 supervision visit (15 total were assessed as 1 was inaccessible because of road conditions) and 8 facilities in the baseline assessment.

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

MTaPS continues to support the 3 selected training institutions to manage their eLearning platforms. So far, 121 participants are registered, and 16 have obtained their course completion certificate on the eLearning platform.

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

Activity 3.5.2: Support the GCMN-RAM, DPM, and ANEH in monitoring the functionality of DTCs in 16 facilities

MTaPS supported DPM and ANEH in preparing and conducting DTC supervision visits to 10 MTaPS-supported HFs. The supervision revealed that 3 out of the 10 facilities prescribed at least 60% of antibiotics under the access category of the WHO AWaRe categorization of antibiotics.

BEST PRACTICES/LESSONS LEARNED

- Friendly competitions can boost practice and awareness in good HH. The Luxembourg Mother Child Hospital IPC committee organized an HH contest on May 5, selecting the staff and hospital wards that were most compliant with WHO recommendations and respected the five guidelines on HH. Three awardees won a prize for the quality of their work on HH. Additionally, the internal medicine ward received a prize for being the most compliant with the five HH guidelines.
- After establishing IPC committees and DTCs, it is important to follow up to reinforce their achievements. This work is especially necessary because the Malian health system is currently under great pressure due to insufficient staff and high staff turnover, which impedes the functioning of the whole health system.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Provide technical and operational support to the National Multisectoral AMR Coordination Working Group (GCMN-RAM) and its two subcommittees (IPC and AMS)	September 2022
Activity 1.1.2: Review the NAP-AMR and its M&E plan	September 2022
Activity 2.1.1: Support the GCMN-RAM in developing a national IPC action plan for the human health sector	August 2022
Activity 2.5.1: Support the GCMN-RAM and DGSHP in monitoring implementation of IPC practices at health facilities	August-September 2022
Activity 2.5.2: Strengthen capacity of three local training institutions to manage eLearning on IPC and AMS for pre-and in-service health care workers	September 2022
Activity 3.5.1: Support DPM in developing and disseminating the DTC training toolkit—reproduce the treatment guidelines for infectious diseases	July and September 2022
Activity 3.5.2: Support the GCMN-RAM, DPM, and ANEH in monitoring the functionality of DTCs in 16 facilities	September 2022

Table 17. Quarter 3, FY22, Activity Progress, Mali – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Provide technical and operational support to GCMN-RAM and its two subcommittees (IPC and AMS)	5	5.4		MTaPS Mali supported the AMR focal point and chairperson of GCMN-RAM and the IPC TWG to hold the following meetings: ■ One coordination meeting of GCMN-RAM with participants from human health, animal health, agriculture, and environmental sectors ■ Two meetings of the IPC TWG, the first on June 7 to validate the methodology to recruit a consultant to develop the national IPC strategic plan, with participants from the human health and environmental sectors; the second on June 24 to use IPCAT2 to assess IPC core components at the national level, with participants from the human health, animal health, agriculture, and environmental sectors
Activity 1.1.2: Review the NAP-AMR and its monitoring and evaluation plan—recruit a consultant to support review	5	5.4		MTaPS supported GCMN-RAM in organizing a workshop on June 29, during which the consultant's methodology to review the NAP-AMR and its M&E plan was validated. Participants from human health, animal health, agriculture, and environmental sectors attended this meeting.
Activity 2.1.1: Support the GCMN-RAM in developing a national IPC action plan for the human health sector—recruit a consultant for the development of the national IPC strategic plan	5	5.4		Participants at the IPC-TWG meeting on June 7 validated the consultant methodology and made the following recommendations: ■ The consultant recruited by MTaPS and the WHO IPC-WASH consultant must work in collaboration. ■ The timeline of consultant work should include a pre-validation workshop for the national IPC strategic plan. MTaPS collaborated with WHO and other partners during this activity.
Activity 2.5.1: Support the GCMN-RAM and DGSHP in monitoring implementation of IPC practices at health facilities	5	5.4		MTaPS supported GCMN-RAM and DGSHP to conduct a supervision visit to monitor the implementation of IPC activities at 16 MTaPS-supported HFs. Additionally, MTaPS collaborated with WHO on May 5, 2022, to support the first celebration of World Hand Hygiene Day in Mali. This event took place at the Luxembourg Mother Child Hospital of Bamako with the theme: "United for Security, Wash your Hands."
Activity 2.5.2: Strengthen capacity of three local training institutions to manage eLearning on IPC and AMS for pre-and in-service health care workers	5	5.4		MTaPS procured and installed an UPS inverter for the DGSHP server that hosts the eLearning courses MTaPS helped develop. Additionally, MTaPS routinely reminds participants of MTaPS-supported meetings and events about the eLearning courses and shares the link with them to access the courses.
Activity 3.5.1: Support DPM in developing and disseminating DTC training toolkit	5	5.4		From June 20 to 24, MTaPS supported GCMN-RAM and DPM to organize a workshop to develop a DTC training toolkit.

Activity 3.5.2: Support the GCMN-RAM, DPM, and ANEH in monitoring the functionality of DTCs in 16 facilities	5	5.4		From April 4 to 14, 2022, MTaPS supported DPM and ANEH to prepare and conduct DTC supervision visits at ten MTaPS-supported HFs. Supervisors made the following recommendations: ■ Review the composition of the respective committees to improve their functionality. ■ Organize sessions to share lessons learned among committee members to increase the committees' visibility and level of support within HFs. ■ Hold a quarterly assessment of indicators from sheets 2 (interviewing patients leaving pharmacy) and 5 (AMU in the HF) of the DTC data collection tool; share the data with the central level.

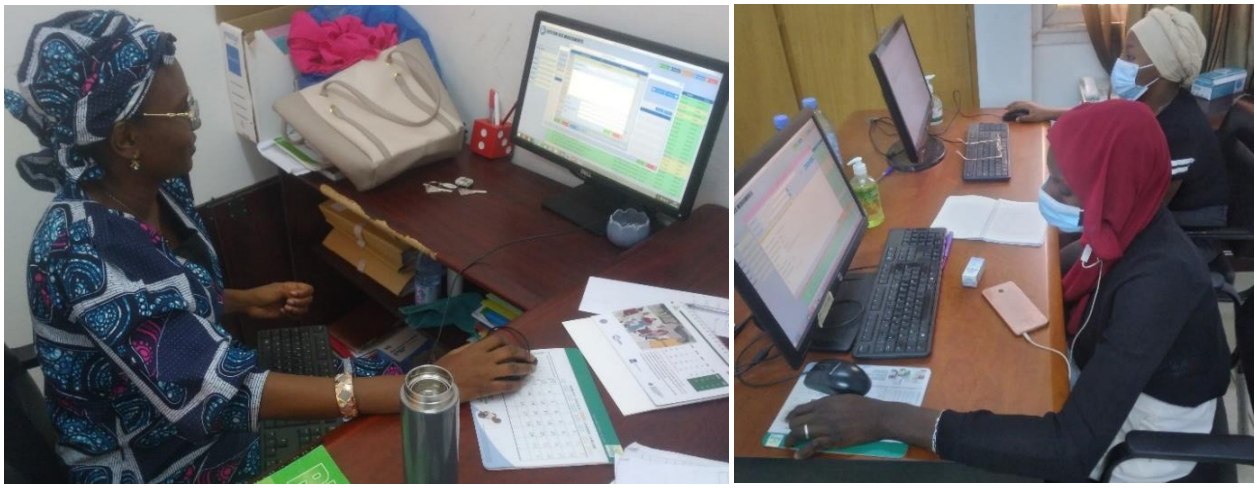
MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

OVERVIEW

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

CUMULATIVE PERFORMANCE TO DATE

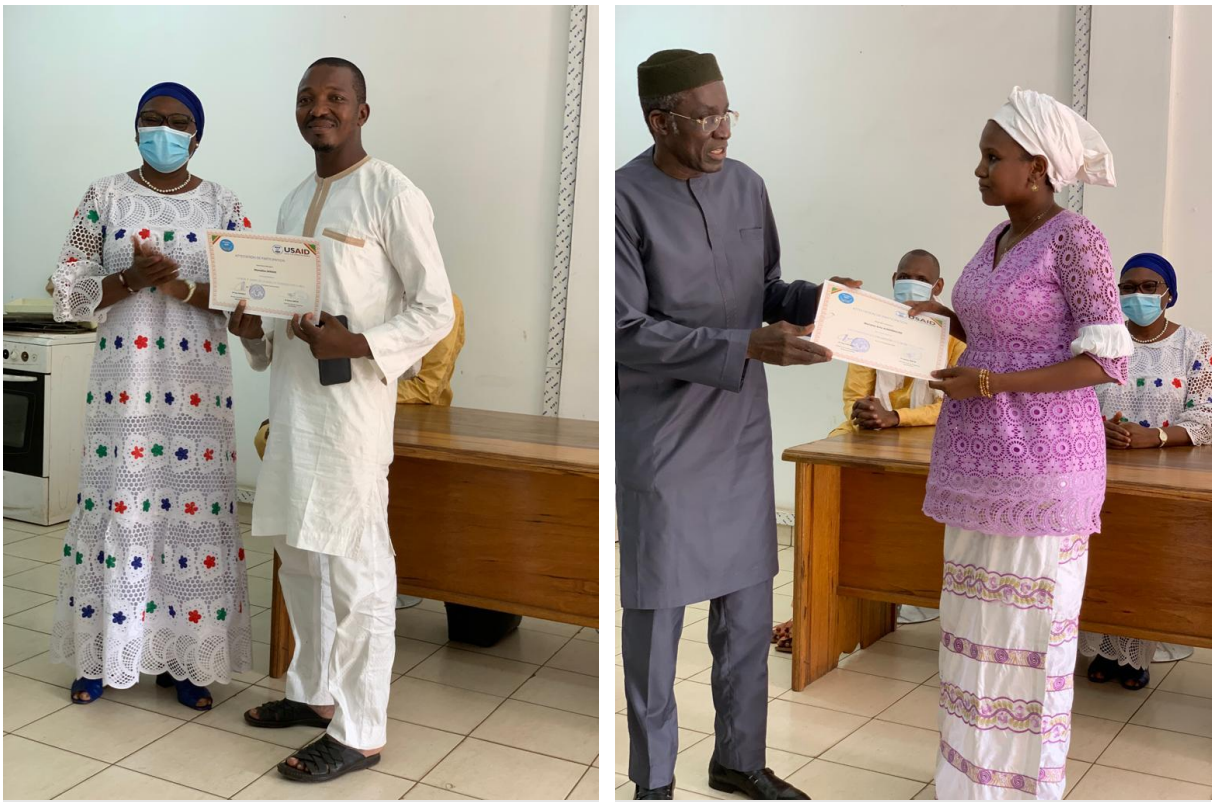
From December 2021 to March 2022, MTaPS supported DPM in conducting a three-day training session to build the capacity of the data entry team to use the PRO-E-MED data entry tool, which is DPM's platform for registering medications; 3,379 medication registration dossiers were completely recorded in the tool, representing a completion rate of 68% of the backlog of an estimated 5,000 unrecorded dossiers on hold since 2019.



Trainees entering data using the PRO-E-MED software. Photo credit: Youssouf Haïdara, MTaPS

QUARTER 3 ACHIEVEMENTS & RESULTS

Data from 5,518 medicine registration dossiers were entered into PRO-E-MED, representing a completion rate of 110% when compared to the target of 5,000 as more cases were discovered than originally estimated. Among these dossiers, 1,162 were renewals.



Safoura Berthe, MTaPS Country Project Director in Mali (right) and Yaya Coulibaly, Director of the DPM (left) delivering certificates to data entry officers. Photo credit: Mariam A. Kone

OBJECTIVE 1: PHARMACEUTICAL SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.1: Support the Pharmacy and Medicines Directorate (DPM) to operationalize the Marketing Authorization Commission

In May 2022, MTaPS helped DPM organize a session of CNAMM in Mali. The report of this session is currently being prepared.

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

Activity 3.1.6.1. Assist the DPM in updating and disseminating the directory of registered medicines and medical products

After the update of the directory of registered medicines and medical products in Mali (May 2022 edition), 3,606 different medications listed by form, dosage, and presentation were registered in Mali. Figure 3 shows the number of currently registered MNCH products in Mali.

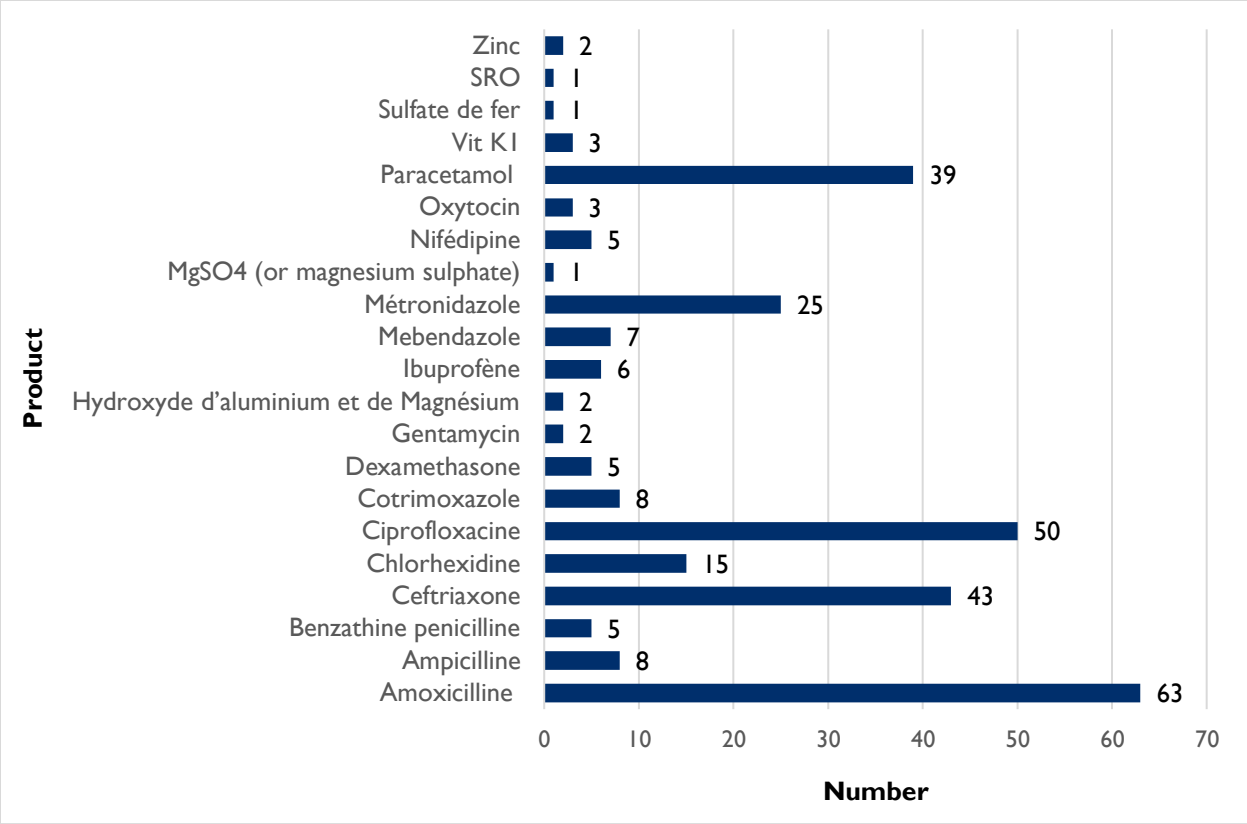


Figure 3. Currently registered MNCH products in Mali

BEST PRACTICES/LESSONS LEARNED

- The training on using the PRO-E-MED tool taught new data entry agents how to correctly enter information on medicines registered in Mali into the tool. The training also strengthened the abilities of users already experienced with PRO-E-MED.
- A daily briefing allows data entry agents' findings and suggestions to be considered, helps remind them of data entry instructions, and allows for feedback to be shared on errors observed during the daily data quality check.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Support the Pharmacy and Medicines Directorate (DPM) to operationalize the Marketing Authorization Commission	September 2022
Activity 1.1.2: Streamline registration of essential medicines, including MNCH products	September 2022
Activity 3.1.6.1: Assist the DPM in updating and disseminating the directory of registered medicines and medical products	September 2022
Activity 3.1.6.2: Assist the DPM in setting up an operational website	September 2022

Table 18. Quarter 3, FY22, Activity Progress, Mali – MNCH

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Support the Pharmacy and Medicines Directorate (DPM) to operationalize the Marketing Authorization Commission	1		1.1	MTaPS supported DPM in organizing a quarterly meeting of CNAMM. The following took place during the meeting: ■ Development of the technical note ■ Technical evaluation of the files by CNAMM members ■ A plenary session of the CNAMM ■ Consolidation and development of the session report
Activity 3.1.6.1: Assist the DPM in updating and disseminating the directory of registered medicines and medical products	3.1		3.1	MTaPS supported the update of medicine registration data in the PRO-E-MED database through: ■ Entering marketing authorization files into PRO-E-MED ■ Data quality control ■ Holding a daily briefing to remind data entry agents about instructions and provide feedback on any inaccuracies observed during data quality checks ■ Holding a meeting to clean up the database at the end of the data entry and determine the next steps During this activity, the DPM team updated PRO-E-MED and inserted new features, taking into account the proposals of the DPM and MTaPS teams. A sustainability plan was also developed. MTaPS also supported DPM in preparing quarterly meetings to orient key stakeholders on the use of the directory of registered medicines and medical products.
Activity 3.1.6.2: Assist the DPM in setting up an operational website	3.1		3.1	The DPM team developed and finalized specifications for an operational website with MTaPS support. Based on these needs, MTaPS developed TOR to subcontract with a company to design the website.

K. MOZAMBIQUE

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 sectors to contain the emergence and propagation of AMR. This goal is consistent with USAID's strategic objective on slowing the emergence of resistant bacteria and preventing the spread of resistant infections and with the goal of Mozambique's NAP on AMR. Controlling the global hazard of AMR relies on robust pharmaceutical systems worldwide that address access to and appropriate use of 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 on 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).

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 activities. There was no baseline score on MSC because this indicator was not present in the WHO JEE 1.0 tool used in 2016. The MSC indicator was included in the revised 2018 JEE 2.0 version. In PY3, in MSC, MTaPS supported two of four (50%) benchmark actions in capacity level 2 and two of four (50%) benchmark actions in capacity level 3. MTaPS collaborated with the Ministry of Health (MISAU), National Institute of Health (INS), and other members of the AMR MCC to draft the TOR for the MCC and its secretariat and the TORs for the AMS and IPC TWGs. In PY3, three AMR MCC meetings were held as well as two IPC TWG and two AMS TWG meetings, to review priorities of the NAP-AMR and activities by implementing partners and to refine the draft TORs. In Q1 of PY4, MTaPS worked with the Government of Mozambique and other partners to organize the 2021 WAAW that showcased the AMR MCC's accomplishments. A TOR for the KAP TWG was drafted.

On IPC, MTaPS supported the DNAM's IPC team to complete four of five (80%) benchmark actions for capacity level 2 and four of six (66%) benchmark actions for capacity level 3. In FY20 and FY21, COVID-19 funds from USAID were leveraged for IPC training in all provinces to bolster the IPC response to the pandemic, and seven HFs were targeted for focused support in the use of standard tools for monitoring IPC and informing programmatic improvement. MTaPS also supported the national IPC program in identification of gaps using the WHO's IPCAT2. The program also helped the seven selected HFs improve their IPC performance using WHO's IPCAF tool. In PY4 Q1, MTaPS trained 44 master trainers (21 female, 23 male) on IPC to strengthen capacity of provincial IPC teams and conducted a repeat IPCAT2 with the central-level IPC team.

On AMS, in PY3, MTaPS supported two out of four (50%) benchmark actions for capacity level 2. In preparation for hospital AMS activities, MTaPS identified staff from the seven priority HFs who were trained on AMS in February 2020. Given the COVID-19 pandemic, instead of in-person visits, MTaPS facilitated virtual meetings targeting five of the seven hospitals. MTaPS found an established AMS

committee with TORs in all but three. The three that were not functional at the time of the meetings cited issues with COVID-19.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support the governance and organizational capacity of the AMR MCC
MTaPS supported the MCC secretariat in organizing a three-day AMR MCC meeting from June 13 to 15, 2022, in Maputo City. This meeting brought in 42 participants (23 female, 19 male) from the human health, animal health, and environmental sectors. The MCC, its secretariat, and the TWG TORs were validated and approved, the stakeholder mapping was updated, and the implementation status of AMR-NAP activities was assessed. A reporting process for the TWGs and the MCC was discussed and established. The MCC discussed and was oriented on the process to develop an AMR NAP monitoring framework with MTaPS support.

RESULT AREA 2: IPC

Activity 2.2.1: Support the national IPC TWG in IPC oversight and management
With MTaPS support, the IPC TWG held a meeting on June 16, 2022, with nine participants (four female, five male). Participants discussed the results of IPCAT2 and revised the TWG's action plan.

Activity 2.5.1: Support implementation of prioritized IPC interventions in selected HFs
MTaPS supported DNAM to implement in-person supervision visits to Tete, Xai-Xai, and Inhambane provincial hospitals from May 23 to 27, 2022. A repeat IPCAF HH assessment and introduction of CQI were performed. Key findings, such as poor AMR surveillance data collection, no record of infections associated with devices such as catheters, administrative staff lacking IPC training, and others, were used to revise the three hospitals' IPC facility action plans with the respective facility IPC committees and the nine-person supervision team comprising DNAM, Jhpiego, and MTaPS. The findings were shared with the provincial directorates, leading to discussion of possible TOT and stepdown IPC training activities at the provincial level.

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

Activity 3.5.1: Support design and implementation of AMS interventions in priority HFs
MTaPS continued supporting the MISAU Department of Hospital Therapeutics (DTH), ANARME, PI, and AMS TWG in the implementation of AMS interventions in priority HFs. With MTaPS support, on May 23, 2022, DTH undertook an in-person visit to Inhambane provincial hospital. The implementation status of the HF's action plan was assessed during the visit through an FGD with the AMS subcommittee and hospital management. A baseline assessment was performed using an AMS assessment tool adapted from the WHO practical toolkit on AMS programs. The hospital officially assigned members of the active DTC to the AMS subcommittee, which has an approved TOR, and regularly meets every month with documented minutes. MTaPS provided technical support on how to organize the AMS subcommittee meetings effectively. Antibiotic consumption was analyzed for the medicine, pediatrics, and obstetrics/gynecology wards and via review of the prescriptions for outpatients and the inpatient files. Among the findings were that the use of antibiotics was not based on laboratory diagnosis and the treatment protocols for the most common infections were not available in four wards: pediatrics,

orthopedics, surgical and urology, but were available in the medicine and obstetrics/gynecology wards. Ceftriaxone, Ampicillin, Gentamicin and Amoxicillin suspension are the most used antibiotics in pediatrics. Noncompliance in four of six wards (67%) on the limitation of ceftriaxone use (a watch group antibiotic) indicated poor practice according to WHO AWaRe categorization. Therefore, it was recommended that the six wards develop their treatment protocols based on the local disease profile and WHO AWaRe categorization.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Support the governance and organizational capacity of the AMR MCC Support the AMR MCC secretariat in organizing regular meetings	July–September 2022
Activity 2.2.1: Support the national IPC TWG in IPC oversight and management At the central level, provide active technical support to the IPC TWG	July–September 2022
Activity 2.5.1: Support implementation of prioritized IPC interventions in selected HFs ■ Support the national IPC TWG in oversight of IPCAF in additional HFs in various provinces ■ IPC TWG annual plan consolidation workshop (July 3) ■ Stepdown IPC trainings at HFs as follow-on to the TOT (July 18–August 20) ■ CQI training to provincial IPC focal points and CQI committees (July 26–28) ■ CQI provincial committee training (virtual); CQI monitoring at the HFs ■ IPC and HHSAF action plan monitoring and technical assistance to IPC committees in MTaPS-supported provincial hospitals (August 15–19)	July–September 2022
Activity 3.1.1: Support development of AMS policies at the national level ■ Initiate development of a provision on appropriate use of antimicrobials ■ Initiate development of the draft regulation on prescription-only sales of key antibiotics	July–September 2022
Activity 3.5.1: Support the design and implementation of AMS interventions in priority HFs ■ In collaboration with DTH, provide support to MTaPS-supported HFs by reviewing their progress on AMS action plans and providing advice on specific identified interventions. ■ Conduct a baseline assessment in the supported remaining two of three provincial hospitals (Xai-Xai, Tete) ■ Undertake virtual technical support to the three supported HFs on AMS interventions; CQI monitoring	July–September 2022

Table 19. Quarter 3, FY22, Activity Progress, Mozambique – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Support the governance and organizational capacity of the AMR MCC **Activity Description:** Strengthen AMR MCC processes and systems to facilitate decision-making and NAP operationalization among stakeholders; facilitate updated mapping of AMR stakeholders and activities; organization of regular meetings	5.4	1.1		With MTaPS support, stakeholder mapping was undertaken in the latest AMR-MCC meeting of June 13–15 in a group exercise. 42 multisector participants (23 female, 19 male) present. MCC, secretariat, and TWG TORs were approved. Implementation status of AMR-NAP activities assessed. The reporting process of the TWGs and the MCC was established. The MCC discussed and was oriented on the process to develop an AMR NAP monitoring framework with MTaPS support.
Activity 2.5.1: Support implementation of prioritized IPC interventions in selected HFs **Activity Description:** Support the IPC Committees in developing detailed implementation plans for specific activities and provide technical assistance on selected IPC interventions for the seven intervention hospitals	5.4	2.5		With MTaPS support, a nine-person supervision team comprising DNAM, Jhpiego, and MTaPS undertook supportive supervision, IPCAF and HH assessment at supported HFs. Focus was on observation on IPC compliance, e.g., waste management monitoring, HH practice, IPC medical commodities management. Gaps included lack of IPC activities supervision plan. The gaps and improvement actions were discussed with HF management, facility action plans were updated, and the findings and plans were shared with the provincial health directorates.
Activity 3.1.1: Support development of AMS policies at the national level **Activity Description:** Undertake AWaRe classification and develop a draft provision on appropriate use of antimicrobial and regulation of prescription-only sales of key antibiotics	5.4	3.1		Engagement of consultant to draft regulation on prescription-only sales of key antibiotics and provision on appropriate use of antimicrobials finalized. Development to start next quarter.
Activity 3.5.1: Support the design and implementation of AMS interventions in priority HFs **Activity Description:** In collaboration with DTH, implement a CQI approach to conduct a baseline assessment and AMS interventions at priority HFs	5.4	3.5		MTaPS collaborated with DTH to provide technical support to the Inhambane AMS subcommittee via an onsite visit. The HF's DTC and AMS subcommittee are functioning. Antibiotic consumption was analyzed for the medicine, pediatrics and obstetrics/gynecology departments and via review of prescriptions for outpatients and the inpatient files. Six of seven wards were not complying with AWaRe categorization of ceftriaxone; hence, a need to develop their treatment protocols. Xai-Xai and Tete provincial hospitals will be visited in Q4.

FIELD SUPPORT ACTIVITIES

OVERVIEW

In PY4, MTaPS continues to provide technical assistance to strengthen the active PV systems to enable the NRA, ANARME, PI, and the HIV/AIDS and TB programs to systematically monitor AEs related to the use of TLD ARV therapy regimen and TPT regimens. MTaPS also supported the adaptation and use of the electronic PViMS for use in active surveillance of TLD.

CUMULATIVE PERFORMANCE TO DATE

In PY2, the National Bioethics Committee on Health approved the protocol for implementation of ASM of the dolutegravir-based TLD regimen. ANARME, PI and the HIV program, with support from MTaPS, conducted training of HCWs on the protocol and on proper data collection. Following the training, 9 of the 10 selected HFs commenced enrolling HIV/TB co-infected patients on TLD, and patients transitioned from nevirapine-based regimens to TLD, into the cohort in April 2020. The tenth facility was being used as a COVID-19 treatment center so it did not enroll patients.

In PY3, further support included patient enrollment and follow-up and quarterly onsite and virtual supervisions by ANARME, PI and HIV program to the nine study sites. The supervisions enabled MTaPS to continuously mentor and support site HCPs to implement the protocol, identify challenges, develop action plans, and undertake corrective actions. As of December 2020, about 3,000 patients had been enrolled into the cohort as per manual records. As of March 2022, their unique patient records had been entered into PViMS. MTaPS supported ANARME, PI in a data cleaning exercise to improve the quality of data collected during follow-up visits of the enrolled patients. The number of patient follow-up visits stood at 8,366 in March 2022, with 95 AEs reported, and no severe AEs. During Q2 of PY4, MTaPS supported ANARME, PI to physically visit the study sites to advise on how to close the active surveillance activity and to complete and hand over their data forms for final analysis to ANARME, PI at the central level.

WHO guidance recommends use of 3HP for the treatment of latent TB infection in HIV patients. In Mozambique, the use of 3HP for TPT is being implemented in addition to continued use of INH preventive therapy. In PY3, MTaPS built upon the ongoing support to ANARME, PI 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, PI and the national HIV and TB programs, with support from MTaPS, developed a study protocol, SOPs, and training materials. The protocol was approved by the National Bioethics Committee on Health and given administrative approval by the Minister of Health. During Q1, MTaPS worked with ANARME, PI and the TB program to address feedback on the study protocol from Centers for Disease Control (CDC) Mozambique and US CDC headquarters prior to CDC approval on March 31, 2022. Other activities in PY4 included periodic engagement with different stakeholders including ANARME, PI, the NTP, CDC and its implementing partners (*Centro de Colaboração em Saúde* [CCS] and Elizabeth Glaser Pediatric AIDS Foundation [EGPAF]), and the Aurum Institute, to plan for implementation. MTaPS procured some of the hardware (tablets) required for facility level data collection and management.

QUARTER 3 ACHIEVEMENTS & RESULTS

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

Activity 3.1.1: Provide technical assistance to establish an active (medicines safety) surveillance system for newly introduced medicines in national HIV and TB programs

During Q3, MTaPS continued supporting ANARME to finalize entry of incomplete data into and data cleaning in PViMS. Preparations for final data analysis were made, including internal capacity building of MTaPS staff on TLD causality assessment through the PViMS. Provision of capacity building on causality assessment, risk factor analysis, and incidence rate analysis for the ANARME PV core team is planned for Q4.

Activity 3.1.2: Develop and implement an active PV program for safety monitoring of TPT scale-up in Mozambique

During Q3 MTaPS held a coordination meeting with ANARME and TB and HIV programs that resulted in agreement on the dates of the TOT, training of HCWs, and piloting of the data collection forms in a selected HF (Mavalane in Maputo City). With MTaPS support, the TOT was conducted from April 19 to 20, 2022. The TOT provided participants with the skills, knowledge, and attitudes necessary to help other HCWs conduct active safety monitoring of patients treated with a TPT regimen. The 10 participants (4 female, 6 male) included 8 ANARME staff (among them the principal investigator and co-investigators), 1 CCS, and 1 EGPAF staff. Training authorization was granted by ANARME for the training of the HCWs from the five study sites. The PViMS platform will be used by the study site HCWs for TPT active safety monitoring data entry. Updating of PViMS is ongoing; the latest version has an upgrade that includes new features and enhancements, such as providing alerts related to data quality. Also, the creation of a dashboard for monitoring of key performance indicators is under way.

BEST PRACTICES/LESSONS LEARNED

Use of a PV online data management platform (i.e., PViMS) made it possible to have patient data entered and synchronized at the facility level so that the data were available to the central level for monitoring and decision-making in a timely manner.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 3.1.1: Provide technical assistance to establish an active surveillance system for newly introduced medicines in HIV and TB programs	
■ Support ANARME, PI and HIV program team to complete entry of missing HF data into PViMS, review, clean and analyze the data ■ Causality assessment training for ANARME PV staff ■ Development of final TLD reports, including lessons learned and recommendations	July–September 2022
Activity 3.1.2: Develop and implement an active PV program for safety monitoring of TPT scale-up in Mozambique	
■ Support ANARME, PI to conduct training of HCW from the five study sites on the approved protocol, SOPs, data collection forms and checklists, piloting of data collection forms at one selected health facility in Maputo City	July–September 2022

- Finalize updates to PViMS, including configuration and acceptance testing of the TPT dashboard; discuss with ANARME and the National Institute of Electronic Governance (INAGE) plans to move the upgraded PViMS to a live environment
- Support ANARME, PI and the TB and HIV programs to cascade training to the five HFs; start patient enrollment and data collection at the five study sites
- Prepare a quarterly report on progress of TPT active surveillance implementation, including supervision of personnel and data analysis, training of ANARME and TPT staff of participating sites

Table 20. Quarter 3, FY22, Activity Progress, Mozambique - FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 3.1.1: Provide technical assistance to establish an active (medicines safety) surveillance system for newly introduced medicines in national HIV and TB programs **Activity Description:** Support ANARME, PI and HIV team to complete the one-year follow-up of enrolled patients; meet with the HFs to share progress report; manage the data on PViMS; develop the final active surveillance report with recommendations to inform further decisions on the continued safety of the TLD regimen in the population.	5.3		N/A	Draft TLD study report developed; shared with ANARME, PI focal person for review. Entry of incomplete data into PViMS and data cleaning via data clerks initiated, addressing elements such as medicine names, patient age, and AEs. Internal training on causality assessment on PViMS undertaken for MTaPS staff. Capacity building on causality assessment, risk factor analysis, and incidence rate analysis for the ANARME, PI core PV team is planned for Q4.
Activity 3.1.2: Develop and implement an active PV program for safety monitoring of TPT scale-up in Mozambique **Activity Description:** Train ANARME, PI and NTP staff on the protocol; support them to cascade the training to focal HCWs at the five selected sites; and to undertake monthly/ quarterly supervision of implementing sites to provide guidance and mentor the teams to ensure compliance with the study protocol	5.3		N/A	Conducted TOT that explained the importance of PV in identifying, assessing, understanding, and preventing AEs of medicines; the roles and responsibilities of the various stakeholders; practical skills in the identification and recording of AEs; and training study site HCWs on correctly conducting ASM of patients on TPT regimens. Expected support and responsibilities of various IPs in this study (CCS, EGPAF, MTaPS), ANARME, PI, HIV/TB programs, provincial and HF focal persons was discussed with the USAID mission and CDC Mozambique.

L. NEPAL

FIELD SUPPORT ACTIVITIES

OVERVIEW

To improve the country's pharmaceutical system, MTaPS Nepal aims to strengthen the health system by bolstering the pharmaceutical sector and medicine regulation in close collaboration with MOHP and DDA. MTaPS Nepal supports policy, legislative, and system revision and implementation at DDA and in the private and public sectors. There are many interlinked challenges, and the selected implementation strategies focus on evidence-based prioritized problems and WHO best practices operationalized by multipronged interventions that are implemented with broad stakeholder involvement, including the private and public sectors.

CUMULATIVE PERFORMANCE TO DATE

Approaching the end of PY4 for the MTaPS Nepal program, most deliveries are nearing completion or have been completed. Only a few deliverables have been pushed for completion in PY5. Advocacy for implementation of the new Drug and Health Product Act and the proposed reorganized structure with increased DDA staffing norms has continued. MTaPS organized a meeting in June 2022 with the parliamentarians from the Education and Health Committee of the House of Representatives to explain the need for approving the new drug act. The act is fundamental to the future development of the pharmaceutical sector. Increasing DDA's regulatory maturity level to take on new roles and responsibilities will also be important under the new law.

Hon. Jaypuri Gharti, Chair, Health & Education Committee of the House of Representatives, inaugurating the opening session on the draft drug act. The session was organized by MTaPS Nepal on June 24-25, 2022. Photo Credit: Sushmita Manandhar

MTaPS Nepal staff, Anish Dhodari demonstrating Pharmadex during user training for DDA staff during a workshop on June 3-4, 2022. Photo Credit: Prabin Tamang

The draft Drug and Health Product Act was developed based on a gap analysis and after numerous discussions and inputs from DDA leadership and the legal committee. The draft act was forwarded to the cabinet secretariat for approval along with a concept note justifying the needed revision.

MTaPS continued revising and drafting new regulations, guidelines, and codes in line with the new drug act. The Code on Sale and Distribution (including GPP and GSDP) regulating pharmacies, wholesalers,

and importers was drafted, presented to stakeholders, and now awaits approval by the Drug Advisory Committee.

Led by the MOHP high-level TWG, work on updating the NMP from 1995 has progressed well. The policy option analysis has been drafted after stakeholder discussions with the international consultant, Dr. Hans Hogerzeil, and meetings in the thematic groups in year 4. The analysis formed the basis for a new draft policy that will be ready for circulation and finalization next quarter. The revised NMP will guide developments in the pharmaceutical sector so that the people of Nepal can have sustainable access to safe, good quality, effective, and efficient medicines and supplies.

The concept note on medicine price regulation was drafted and shared with MOHP and DDA. With support from pricing consultants (one international and one local) that are being hired, the regulation guidelines will be updated. In addition, MTaPS supported DDA in developing a price adjustment procedure to address existing issues. The updated regulations will bring clarity and detail to the interpretation of the law and align it with WHO best practices to improve health care provision.

To strengthen DDA's regulatory ML, an ML action plan was developed and regularly updated using WHO GBT institutional development indicators. Critically important for increasing ML is the legislative and structural update that will position DDA to take on new roles and responsibilities and implement a strong quality assurance system. The DDA QMS manual was finalized and is ready for signoff and operationalization along with SOPs of all DDA tasks and activities in preparation for ISO 9001:2015 certification.

Alignment with WHO best practices has progressed well. Guidelines and inspection tools for GPP and GSDP and their implementation strategies were developed and presented to stakeholders. Scripts for e-learning materials for GPP and GSDP implementation have been developed and a tender prepared for the development of community GPP awareness strategies.

MTaPS supported DDA in developing a new and better medicine regulatory body MIS, Pharmadex. MTaPS also assisted with UATs for the pharmacies and wholesalers' registration modules, making them ready for implementation. Modules for manufacturer and product registration are being customized. A security audit of Pharmadex was done in order to host Pharmadex on the government server. The Pharmadex medicine and medical device registration module facilitates WHO dossier review and supports initiation of medical device regulation in Nepal, in line with MTaPS' proposed implementation strategy. To support good practices in product registration, MTaPS drafted TOR for the registration committee and its internal and external advisors.

MTaPS assisted in strengthening PV reporting, in line with WHO best practices to increase regulatory maturity in PV. In collaboration with DDA, MTaPS drafted PV regulations and guidelines. The roles and responsibilities of provincial centers were defined and their capacity built, in collaboration with WHO. Safety studies for new molecules were reviewed, and the ADE reporting form revised. TOR for hospital DTCs to promote PV reporting were prepared, and new DTCs were formed to increase PV awareness and reporting.

To strengthen medicine management at government HFs, a concept note and an implementation and impact assessment strategy were developed for a pilot study of SPARS by government staff and trained

MMSs. The first batch of 30 MMSs were trained in a two-week training by Kathmandu University, followed by a five-day practical in-service training. Implementation of the SPARS pilot study has started in 3 provinces, within which 12 randomly selected districts were also included.

QUARTER 3 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.1: Finalize DDA competency mapping report and training plan and implement selected training. MTaPS finalized the competency mapping report and prepared to present the findings to DDA with a proposed training plan. Job descriptions were developed for the remaining DDA sections.

Activity 1.2.1: Finalize drug act, Code on Sales and Distribution, selected and prioritized regulations and guidelines. MTaPS organized a meeting with 25 parliamentarians to advocate for the legislative revision, structural reorganization, and expansion of DDA. The new draft bill on the Drug and Health Product Act was finalized and prepared for wide stakeholder presentation and submission to the Council of Ministers. MTaPS supported DDA in developing a procedure for price adjustment, which was required to address pricing issues on pharmaceutical products. MTaPS initiated hiring of an international and a local consultant to provide support in revising price regulations.

Activity 1.2.2: Policy options analysis and draft NMP. A steering committee chaired by the MOHP special secretary requested that MTaPS develop a rapid response initiative action plan for 100 days to finalize the draft NMP. Drafting of the policy option analysis progressed well. It was informed by inputs from thematic group meetings and a situational analysis of the 1995 Nepal NMP.

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

Activity 2.2.1: Implement regular MALAP updates toward maturity level 2. The ML action plan (MALAP) was updated and shared with PQM+, WHO, and DDA. The updated report was drafted with a focus on ML 1 and 2 indicators and progress in MALAP.

Activity 2.2.2: Finalize strategy for products registration, update SOP, and implement revised practices. The DDA staff learning visit to an Indonesian regulatory body was shifted to August 2022. Customization of the Pharmadex product registration module progressed well. The module is expected to be ready for implementation next quarter, along with finalized product registration guidelines and TOR for the registration committee.

Activity 2.2.3: Organize a stakeholder meeting, develop standard specifications of selected medical devices, and finalize draft registration guidelines in line with Pharmadex. The medical device registration guideline, situation analysis, and implementation plan were drafted and ready for presentation to stakeholders. MTaPS prepared and presented the "Medical Device Regulation in Nepal" during the global MTaPS biweekly meeting.

Activity 2.2.4: Conduct streamlining meeting for PV reporting and finalize SOP with associated tool to increase maturity level. The MTaPS PV specialist who supports DDA with data cleaning of ADR reports for entering into Vigiflow drafted and shared with the regional PV centers, the technical

document for PV regulations and guidelines for ADE reporting, as well as the format and SOPs for PV reporting into Vigiflow. A checklist for dossier evaluation was finalized and is now being implemented. IEC materials started being developed to increase awareness and knowledge of PV.

Activity 2.2.5 and 2.2.6: Develop GPP and GSDP e-learning course and initiate implementation of GPP and GSDP strategy. Guidelines, inspection tools, and the implementation strategy on GPP and GSDP were finalized and presented to stakeholders and await approval by the Drug Advisory Committee. GPP and GSDP strategy implementation is ongoing with development of e-learning material for entity owners and IEC material for increased public awareness on GPP. MTaPS assisted DDA in reorganizing inspection files and storing them in cabinets. Self-inspection checklists for GPP and GSDP were developed and integrated into Pharmadex as a registration and renewal requirement.

Activity 2.2.7: Update good hospital pharmacy practices (GHPP) directive and guidelines and develop GHPP capacity building strategy. MTaPS assisted in a situation analysis and assessment of the existing directive on GHPP.

Activity 2.2.8: Finalize QMS manual and SOP for ISO 9001-2015 certification. The DDA QMS manual and SOPs were finalized and await signoff by DDA management prior to being put into practice.

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

Activity 3.1.1: Finalize and implement Pharmadex registration module. UAT of the pharmacy and wholesale registration module was completed. All identified concerns were resolved, including the shift in payment procedure and installation of a secure sockets layer certificate on DDA's primary domain. The DDA assessors' training in pharmacy and wholesale registration was completed. The system is ready for DDA to notify users and to shift registration, renewal, and modification to Pharmadex. This process will be supported by the newly established help desk. Finalization of modules for manufacturers and product registration is ongoing for UAT in Q4.

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

Activity 5.1.1: Implementation of SPARS in selected districts. Following the initial 2-week medicine management training implemented by Kathmandu University, MTaPS completed practical training for the first batch of 30 MMSs from 6 pilot districts. Data from the initial SPARS supervisory visits and medicine management assessment were entered in the SPARS database for quality assurance, feedback, and report generation. Procurement of recognition items and medicine management tools needed for SPARS implementation in all 12 pilot districts is ongoing, in close coordination with the Department of Health Services and the Curative Services Division and in adherence to the assessment protocol.

Activity 5.3.1: Hire STA-AMR and implement situation analysis and support revision of national plan. STA-AMR was hired to start on August 1, 2022.

BEST PRACTICES/LESSONS LEARNED

- Legislative and political interventions are challenging. Advocacy paired with the engagement of parliamentarians improves the feasibility of interventions.

- Overcoming very limited DDA staffing and constant leadership changes requires a high degree of flexibility, productive meetings with clear agendas, detailed implementation plans, and reinforcement of decisions as reflected in talking points or minutes.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Present DDA competency mapping report and training plan and implement learning visit	July 31, 2022
Activity 1.2.1: Approval of Code on Sales and Distribution; draft updated medicine price regulation; update/replace drug and health product registration regulation	September 15, 2022
Activity 1.2.2: Finalize NMP and high-level policy conference	September 30, 2022
Activity 2.2.1: Implement regular MALAP updates toward maturity level 2	September 15, 2022
Activity 2.2.2: Implement UAT for product registration in Pharmadex	September 30, 2022
Activity 2.2.3: Initiate medical device registration and UAT in Pharmadex	September 30, 2022
Activity 2.2.4: Increase maturity level for PV	September 30, 2022
Activity 2.2.5: Finalize GPP e-learning material and GPP IEC material	September 30, 2022
Activity 2.2.6: Finalize GSDP e-learning material and train DDA inspectors	September 30, 2022
Activity 2.2.7: Update GHPP directive and guidelines and develop GHPP capacity-building strategy	September 30, 2022
Activity 2.2.8: Implement QMS manual and SOP toward ISO 9001-2015 certification and internal audit	September 30, 2022
Activity 3.1.1: Finalize and implement Pharmadex registration module	September 30, 2022
Activity 5.1.1: Train 30 MMSs and implement SPARS in all 12 selected districts	September 30, 2022
Activity 5.3.1: Implement situation analysis and support revision of national plan	September 30, 2022

Table 21. Quarter 3, FY22, Activity Progress, Nepal – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Assist DDA in organizational restructuring **Activity Description**: Finalize DDA competency mapping report and training plan and implement selected training	1.1	N/A	N/A	Job descriptions finalized for all DDA sections facilitated by the now-dedicated MTaPS senior technical advisor, in collaboration with the appointed DDA focal person. The competency mapping was completed, and a presentation prepared but is awaiting DDA availability to present. Training needs are many, competency is weak, and the most critical training needs must be prioritized. This is not an easy process lying ahead for next quarter.
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	N/A	N/A	The new drug act now awaits approval by the Council of Ministers. The advocacy meeting with parliamentarians was important to advocate for the approval and create the needed government commitment. The Curative Services Division is waiting for the Drug Advisory Committee to review and approve, which is important for the pharmaceutical sector and GPP and GSDP guidelines implementation. MTaPS held advocacy meetings with the associations to ensure commitment to the introduction of the new guidelines.
Activity 1.2.2: Revise and update the NMP **Activity Description:** Perform policy options analysis and draft NMP	1.2	N/A	N/A	The involvement of the special secretary for health was critically important for MOHP's commitment to revising the NMP and formulation of thematic groups that ensure stakeholder involvement. MTaPS in collaboration with MOHP, DDA, and WHO and assisted by international and local consultants have drafted the NMP and prepared the policy option analysis to meet the 100-day deadline set by MOHP.
Activity 2.2.1: Strengthen regulatory capacity and maturity **Activity Description:** Implement regular MALAP updates toward maturity level 2	2.2	N/A	N/A	Having a two-year DDA MALAP with the first year targeting maturity level 2 is an important strategy to coordinate and manage efforts to increase maturity level. However, the resource limited DDA is challenged with improvements not easily achieved. Reaching level 2 will require legislative and organizational changes to be implemented. The MALAP offers a tool that allows for impact assessment in all eight areas.
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	N/A	N/A	The learning visit to Indonesia was postponed but it will be important for DDA to establish collaboration with a regulatory body of a higher maturity level. Pharmadex product registration is progressing well, and the stronger product registration workflow and role of the registration committee will improve best practices in dossier review and product registration.

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 Pharmadex	2.2	N/A	N/A	Following the interest expressed by parliamentarians to regulate medical devices, DDA now prioritizes putting the regulation of medical devices in place. The guideline on medical device registration was drafted along with an implementation strategy and the customization of Pharmadex for medical device registration has started. The MTaPS biomedical expert will assist DDA in initiating the notification system and introducing Pharmadex in medical device registration.
Activity 2.2.4: Strengthen PV at the national and provincial levels **Activity Description:** Conduct streamlining meeting for PV reporting and finalize SOP with associated tool to increase maturity level	2.2	N/A	N/A	The PV specialist joined MTaPS as a full-time employee in June 2022 and started working with DDA. The specialist is evaluating the safety profile of new molecules and developing guidelines, PV formats, and SOPs for an increased maturity level in PV. MTaPS support is critical for establishing PV regulation and strengthening collaboration with regional PV centers, public health programs, and WHO.
Activity 2.2.5: Strengthen GPP **Activity Description:** Develop GPP e-learning course and initiate implementation of GPP strategy, including community awareness	2.2	N/A	N/A	The story board for GPP e-learning materials to train pharmacy owners was finalized and filming is ready to start. With support from the USAID communication team, possible providers were identified to take part in the tendering process for development of community IEC material. The material will be completed next quarter. Self-audit tools were developed and integrated into Pharmadex registration and renewal module.
Activity 2.2.6: Strengthen GSDP **Activity Description:** Finalize GDP guidelines, inspection tool, and e-learning material to train wholesalers	2.2	N/A	N/A	The GSDP guidelines and inspection tool were finalized and presented to stakeholders and is now awaiting approval by the drug registration committee. It is hoped that the powerful committee will support approval of the GPP and GSDP guidelines. MTaPS has organized several advocacy meetings. The material for training inspectors is being developed for training implementation next quarter.
Activity 2.2.7: Strengthen GHPP **Activity Description:** Update good hospital pharmacy practices (GHPP) directive and guidelines and develop GHPP capacity building strategy	2.2	N/A	N/A	MOHP has already revised GHPP directives. From the MTaPS situation analysis, further revision is needed. The situation analysis is in the process of being finalized.
Activity 2.2.8: Assist DDA in developing a QMS **Activity Description:** Finalize QMS manual and SOP for ISO 9001:2015 certification	2.2	N/A	N/A	The QMS manual and SOPs for all DDA sections have now been finalized by the QMS TWG. The setup of the DDA QMS now awaits signing by the DDA director general. Recruitment of a consultant to train staff for implementation of an internal quality audit is ongoing. A challenge is DDA having time to take part in the training.
Activity 3.1.1: Implement pharmaceutical management information system, Pharmadex, for registration, inspection, importation and exportation, and PV **Activity Description:** Finalize and implement Pharmadex registration module	3.1	N/A	N/A	Pharmadex implementation has progressed well with two successful UATs and identified issues addressed. DDA users are trained in the pharmacy and wholesale registration module. The manufacturer registration workflow is finalized and will be the next module to be implemented followed by the product registration module. Critically important is the consent to Pharmadex by powerful stakeholders. A meeting will be organized soon prior to implementation of Pharmadex.

Activity 5.1.1: Strengthen medicine management in government-sector health facilities **Activity Description:** Implement SPARS in selected districts	5.1	N/A	N/A	Based on MOHP requests, the number of pilot districts was doubled. The first batch of MMSs finalized their training and initiated SPARS implementation. Procurement of items needed by facilities and MMSs is challenged by individual needs and requirements. Close collaboration with the Department of Health Services and Curative Services Division is important in optimizing needs. Interest and commitment are strong and very promising for successful SPARS implementation.
Activity 5.3.1: Improve antimicrobial resistance containment **Activity Description:** Hire a senior technical advisor (AMR), implement situation analysis, and support revision of national plan	5.3	N/A	N/A	This activity was previously put on hold by DDA, but the newly appointed director general of DDA requested MTaPS recruit a senior technical advisor to support AMR activities. The advisor will begin on August 1, 2022, and will prepare a situation analysis.

Participants from DDA, National Medicines Laboratory, Department of Health Services and Health Insurance Board taking part in OHT training organized by USAID/Asia Bureau, facilitated by MTaPS. Photo Credit: Prabin Tamang, Senior Finance and Administrative Assistant

Orientation of SPARS practical training session at Shivanagar Primary Health Care Center, Chitwan. Photo Credit: Jeevak Shakya, SPARS Specialist

M. NIGERIA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

PORTFOLIO GOAL

The GHSA-related goal of MTaPS Nigeria is to support AMR containment by slowing 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, and use of AMS. The country-level result areas align with MTaPS' overall GHSA portfolio-level results areas. The 2015 WHO GAP on AMR and Nigeria's NAP-AMR include IPC and AMS as two key strategic objectives and MSC as a key approach.

MTaPS Nigeria's approach includes supporting the country to improve its JEE scores in all three result areas. In this regard, our capacity strengthening approach is targeted at providing the necessary skills to members of the AMR TWG at the national and state levels and to facility teams and committees. In addition, MTaPS is supporting the AMR TWG Secretariat to reinforce the multisectoral OH approach to tackling AMR containment challenges in the country. At the facility level, MTaPS is supporting the establishment of IPC and AMS programs with the required structures to ensure that IPC and AMS interventions are effective, sustainable, and coordinated by the established facility structures.

In FY22, MTaPS Nigeria is expanding the IPC and AMS programs to additional facilities while ensuring that the established AMS and IPC programs in the supported facilities are consolidated and matured to address AMR-related challenges at the facilities.

CUMULATIVE PERFORMANCE TO DATE

From PY1 (FY21) to date, MTaPS supported the completion of 7 of the 62 total WHO IHR benchmark actions (11%): 3 contributing to MSC/AMR, 2 to IPC, and 2 to AMS. Five other benchmark actions are at various stages of completion. MTaPS' goal of supporting the benchmark actions is to help the country move up to the next JEE level across the three result areas.

The country remained in capacity level 2 for MSC despite completing all 4 benchmark actions in level 2 and 2 benchmark actions in level 3. MTaPS, in collaboration with the AMR TWG Secretariat, supported the remaining 50% (2/4) of benchmark actions in capacity level 3 and 25% (1/4) of benchmark actions in capacity level 4 for MSC. MTaPS' support contributed to the completion of 100% benchmark actions in level 4 of the MSC result area. The country is on track, with MTaPS' support, to completing 80% of level 5 benchmark actions by the end of FY23 (PY5). IPC and AMS subcommittees were revitalized with TORs and work plans developed. MTaPS also supported the establishment of a state-level committee in Enugu mirroring the federal committees with a TOR and state plan. As a result of MTaPS' support to the national AMR TWG, there has been improved regularity of quarterly subcommittee meetings. In addition, the strengthening of the governance structure through MTaPS' support to the AMR TWG at the national subcommittee level has fostered an improved working relationship between the human and animal health sectors.

MTaPS supported the AMR TWG Secretariat to develop the national IPC strategic plan, a capacity level 3 benchmark action. Though the baseline JEE level 2 for IPC has not changed, MTaPS' support is helping to move the country closer to the JEE score of 3, with MTaPS contributing 20% of the level 2 benchmark actions. MTaPS also supported the AMR TWG Secretariat to review the 2013 national IPC policy and national IPC SOPs for facility level use. Both documents are ready for dissemination to guide the planning and implementation of IPC programs and practices at the various levels of healthcare services in the country. At the state level, MTaPS—in collaboration with NCDC— supported the development of the Enugu State IPC plan. MTaPS' key achievements at the facility level include the establishment of IPC programs in all three supported facilities in Enugu state. Key outcomes include baseline assessments conducted using WHO IPCAT2 to assess the state-level program and IPCAF/HH tools to assess facility-level programs. Guided by the results of the baseline assessment, MTaPS supported the facilities to develop improvement plans with a CQI approach for monitoring improvements. State and facility IPC committees and teams were inaugurated in collaboration with the state MOH and facility management. Through a face-to-face training approach, the capacity of members of the three facility teams was built in key technical, managerial, and leadership components for effective coordination and management of the IPC program across the state. Capacity building included the use of WHO assessment tools to self-assess and develop improvement plans. As a result, step-down training was conducted by the facility teams for about 300 facility staff. MTaPS provides ongoing monitoring of these programs remotely and through mentoring visits to the facilities.

From FY21 to date, MTaPS has supported the country's AMR TWG Secretariat to implement 2 capacity level 2 benchmark actions 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 achieving 100% completion of level 2 benchmark actions by FY23 and positioning the country for JEE level 3 capacity.

At the state level, AMS programs were established in Enugu state and across three selected health care facilities. Following the establishment of the AMS program at these facilities, AMS/IPC hybrid committees were established. The hybrid committees are to ensure regular meetings and effective oversight of IPC and AMS activities in the facilities and avoid the pit falls of multiple and ineffective committees. The functionality of the facility AMS and IPC teams has been enhanced by the active hybrid committee model established at the facilities. 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. Local formularies were not in use in any of the supported facilities before MTaPS' support. The laboratories at these facilities have commenced the development of hospital antibiograms to assist in streamlining antibiotics prescription in the facilities and guide empirical prescribing of antibiotics at the health care facilities.

A critical step in establishing an AMS program in a country is the development of an AWaRe categorization of essential antibiotics used in the country to help control the misuse of life-saving antibiotics. In this regard, MTaPS collaborated with WHO and the DFDS of the Federal MOH to constitute an ad hoc AWaRe TWG that will be responsible for the categorization of antibiotics in Nigeria based on WHO AWaRe guidelines.

The national OH AMS plan has been developed through MTaPS' support to the country's AMR TWG. This document will provide strategic direction for AMS activity design and implementation across the health care levels in both the human and animal health sectors in Nigeria.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Activity 1.1.1: Support the national AMR Secretariat to review the implementation of 2017-2022 NAP-AMR, including costing of revised plan

MTaPS supported the AMR TWG Secretariat to initiate the review of the performance of the 2017-2022 NAP-AMR with the engagement of a consultant. The outcome of this review, which is ongoing, would provide necessary guidance and lessons from implementation lapses that should be taken into consideration in the development of a new NAP-AMR for the country.

Activity 1.1.2: Continue to strengthen governance, MSC, and functionality of the AMR-TWG and its subcommittees

Two multisectoral meetings were held in the quarter. An AMS TWG sub-committee meeting with stakeholders from the animal health sector, human health sector, and the environment sectors was held on April 6. The committee made contributions to the national AMS strategic plan and ratified the national document. The first meeting of the AMR coordinating committee (CC) in FY22 was held on April 12 with a decision taken on the plan for commencing development of a new NAP-AMR for Nigeria.

RESULT AREA 2: IPC

Activity 2.2.1: Strengthen capacity of HCPs to implement IPC guidelines (NAP activity 3.1.3)

IPC programs commenced in two private health care facilities in Enugu and four public health care facilities in Kebbi state. IPC training sessions have concluded in one of the six facilities while the final round of training has been scheduled for the remaining five facilities. Baseline assessments of the core components of an IPC program using the IPCAF tool were carried out in all six facilities. The result of this assessment and the SWOT analysis will inform the development of facility action plans.

In Q3, 42 HCPs were trained in IPC (24 female, 18 male): 12 people (10 female, 2 male) from Mother of Christ Specialist Hospital Enugu have undergone the entire suite of IPC training and the IPC committee and team have been inaugurated in the facility, and 30 HCPs from 4 public HFs in Kebbi state have been scheduled for the last round of IPC training.

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

Activity 3.1.1: Strengthen AMS in human and animal health sectors (NAP objective 4.3)

MTaPS supported the development of the first OH national AMS plan that covered the human health, animal health, and environment sectors. This national document was handed over to the AMR TWG Secretariat by the consultants engaged by MTaPS in June 2022 after broad stakeholder reviews and inputs. The document will be made available for consultation in guiding AMS program designs and

interventions in the country after the AMR TWG Secretariat finalizes the expansion of the M&E components of the document.

MTaPS engaged a consultant to support the AWaRe TWG in collating and analyzing AMR/sensitivity data from across the country and from grey literature. The analyzed data will assist the AWaRe TWG in categorizing antibiotics in Nigeria based on local patterns of sensitivity and resistance of essential antibiotics to priority disease conditions in Nigeria.

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

MTaPS, in conjunction with the AMR TWG Secretariat, trained 54 HCPs (32 female, 22 male) in 6 hospitals in Kebbi and Enugu state—22 HCPs (18 female, 4 male; potential members of the AMS team) from two private faith-based HCFs in Enugu completed the AMS training course and inaugurated their facility teams and committees. Baseline assessment of the core elements of the AMS program at the facilities were assessed using the WHO check list. All six facilities' scores ranged from 2% to 33%. Their facility workplans have been developed and both facility AMS teams are preparing to carry out PPS with technical support from MTaPS and NCDC.

BEST PRACTICES/LESSONS LEARNED

The engagement of private-sector hospitals in the AMR program support to the country is seen as a right step in ensuring that AMR containment practices are promoted in the private health sector, which according to estimates accounts for about 60% of service provision to the Nigerian population.[9]Two private faith-based HCWs were engaged in the AMR containment program in Q3. The management of both facilities were excited by the selection of their facility to participate in the program and have demonstrated commitment to supporting the program to succeed at their facilities with the participation of the CMDs at the IPC and AMS training sessions.

The training program implementation design for the public sector did not fit perfectly for the private-sector facilities. The training programs had to be redesigned to accommodate the peculiarities of the private sector as it relates to workload demand and performance requirements of staff in the private sector. Facility-based trainings with shorter training sessions were adopted for the private sector. This also required a longer period of engagement to go through the training modules.

This new training design allowed room for participation of the selected private hospital staff and the management staff of the HCFs at the training sessions. The tailored training provided the opportunity for facilitators to better understand the real environment where the programs would be implemented. It also allowed hospital management to gain first-hand knowledge of what is required to support successful facility program implementation.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
WHO PPS at seven supported facilities	July–August 2022
Continuation of AWaRe categorization workshop by the AWaRe TWG	July–September 2022

[9] WHO Country Strategy at a Glance, 2016.
https://apps.who.int/iris/bitstream/handle/10665/136785/ccsbrief_nga_en.pdf;sequence=1

Supportive supervision at MTaPS-supported facilities	August 2022
Follow-up assessment of program implementation	September 2022
IPCAF and IPCAT2 repeat	August–September 2022
IPC training session for one faith-based facility in Enugu and concluding IPC and AMS training sessions for Kebbi state facility teams	July 2022

Table 22. Quarter 3, FY22, Activity Progress, Nigeria – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1: National AMS plan review workshops **Activity Description:** Organize stakeholder workshops to review and adopt the draft national AMS plan developed by the human and animal health consultants engaged by MTaPS	5.4	3.1, 1.1		Two stakeholder workshops were organized in April to ratify the draft national plan developed by the consultants engaged by MTaPS based on the rapid assessments carried out. Following the last workshop, comments and inputs from stakeholders were sent to the consultants to update the draft. The final draft of the plan has been submitted to the AMR TWG CC for ratification by required government authorities.
Activity 2: Establishment of AMS and IPC programs and training at supported facilities in Enugu and Kebbi state **Activity Description:** Support capacity strengthening of IPC and AMS teams through training sessions	5.4	2.5,3.5		AMS and IPC programs commenced in four public facilities in Brinin Kebbi and two private facilities in Enugu state. AMS training sessions have been concluded at the two private facilities while the basic AMS training has been concluded in all supported facilities in Kebbi state. Intermediate training on AMS is ongoing in Kebbi state. The final session on IPC training in one of the private facilities in Enugu and the four supported facilities in Brinin Kebbi commences on July 6 and 14, respectively.
Activity 3: Development of workplace reminders for IPC and AMS practices for HCF use **Activity Description:** MTaPS to support NCDC in developing job aids, work reminders, and posters at the supported facilities to improve adherence to best IPC and practices by HCPs and the patients	5.4	2.5		MTaPS is collaborating with USAID partner Break Through Action Nigeria (BAN) and NCDC to develop workplace reminders for IPC and AMS practices for facility use. BAN developed design briefs on AMS and IPC which are currently being reviewed by the risk communication unit in NCDC. If the samples are accepted, the briefs will be used to develop sensitization materials that will be presented in a larger stakeholder's workshop supported by MTaPS later.
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 profile of the antibiotics to disease conditions of public health importance	5.4	3.1		The meetings of the AWaRe TWG have been on hold due to a technical issue. The issue has been escalated to the USAID/Nigeria and DFDS for guidance and way forward. Nonetheless, MTaPS has engaged a consultant to support the evaluation of sensitivity and resistance data on AMR across HCFs in the country. He has been formally introduced to key stakeholders to aid his data gathering from HCFs involved in antimicrobial surveillance programs in the country.
Activity 5: WHO PPS at MTaPS-supported facilities **Activity Description:** This includes a two-day training course for focal persons from the AMS teams in the supported facility, followed by a five-day survey at the selected facility with technical support to the facility AMS team by experts from the AMR TWG	5.4	3.5		The PPS survey scheduled for June 2022 did not take place due to the delay in the delivery of AMS training for members of the AMS teams in the supported facilities. The AMS training will be concluded at the selected facilities by the third week in July. The training for the PPS comes up after the AMS

				training and this will be followed by the PPS at the facility level. The PPS will conclude in August.
Activity 5: Supportive supervision and monitoring of IPC and AMS programs at ESUTH **Activity Description:** Quarterly physical visit of the AMR national technical team to the facility to provide support to the IPC and AMS teams responsible for IPC and AMS programs at the facility	5.4	2.5, 3.5		This activity was not held in ESUTH as scheduled in Q3. The AMR TWG and MTaPS agreed that the supportive supervisory visit should be carried out for all three in Enugu to optimize human resources from our principal partner NCDC who would lead the visit. The supportive supervisory visits have been rescheduled for August. This is to ensure that all the supported facilities have commenced the implementation of AMS and IPC programs and interventions at their facilities before the visit.

N. PHILIPPINES

FIELD SUPPORT ACTIVITIES

OVERVIEW

The MTaPS Philippines program aims to establish and institutionalize an integrated health supply chain and an effective pharmaceutical system 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. To reach this goal, MTaPS Philippines provides technical assistance and capacity building to DOH to achieve the following objectives:

- 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 of health commodities

MTaPS meets these objectives by identifying and addressing supply chain bottlenecks in the regular provision of TB, FP, and HIV services to increase access; supporting DOH's central offices in redefining its PSCM-related roles in the context of a devolved health system; professionalizing the PSCM and PV workforces; supporting DOH to set up necessary information systems; enabling DOH and LGUs to optimize PSCM resources; and supporting DOH and the Philippines FDA to enhance regulatory systems related to product registration and patient safety.

CUMULATIVE PERFORMANCE TO DATE

Governance and system design: MTaPS conducted a rapid diagnostic of the PSCM system and helped DOH develop a three-year strategy with key interventions. MTaPS analyzed the draft UHC implementing rules and regulations (IRR) and suggested addition of articles to ensure legal support for supply chain reforms at central and LGU levels into the IRR. MTaPS helped DOH design and develop a PSCM roadmap for the central, regional, and local government levels in support of the UHC law implementation. MTaPS has been assisting DOH to develop a PSCM reform plan and institutionalize a fully functional PSCM governance mechanism with clarifications of roles among different units of DOH's central office, CHDs, and LGUs to ensure uninterrupted access to and appropriate use of health commodities.

Workforce development: MTaPS supported DOH to assess the PSCM and PV workforce needs and develop a PSCM and PV workforce development plan which was used by DOH in hiring new staff, developing and offering e-learning modules to train the workforce, and developing the concept of LTAPs to implement PSCM systems at the LGU level.

Information system: MTaPS supported DOH to identify technical requirements for an end-to-end eLMIS and develop a roadmap for its implementation across the Philippines. MTaPS engaged a commercial off-the-shelf eLMIS solution provider and has been providing technical assistance to DOH to implement the eLMIS solution for greater visibility of PSCM data and more efficient management of the

health commodity supply chain, including COVID-19 vaccines. MTaPS also upgraded the PViMS software to version 2 and completed 87 software enhancements, including interoperability with Vigiflow, as requested by DOH for setting up active drug safety monitoring of TB medicines. MTaPS has been supporting DOH and Philippines FDA to roll out PViMS and monitor its use at targeted TB facilities.

Financing and resource management: MTaPS supported DOH to develop guidelines for FAs and design and pilot a strategic procurement mechanism with demand aggregation, price negotiation, and FAs to ensure efficient procurement operation, economy of scale, and quality of health commodities. MTaPS has also worked with USAID's ReachHealth, DOH, and LGUs to test innovative use of a digital platform to facilitate information exchange, cross referral, and cost reimbursements among the members of local HCP networks to integrate public and private providers into local health systems.

PSCM and PV services: MTaPS helped DOH and POPCOM update and finalize a warehouse operation manual. MTaPS supported the long-term estimation of quantity and budget requirements for TB and FP commodities in 2019-2022. MTaPS also worked with FDA to update the national PV policy and optimize the product registration system. MTaPS joined other USAID IPs to help the Bangsamoro Autonomous Region in Muslim Mindanao MOH develop a PSCM action plan for the autonomous region.

QUARTER 3 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.1. Support DOH in implementing PSCM roadmap as part of implementing UHC law: MTaPS is supporting DOH in implementing components of the roadmap, such as the finalization of the master stock keeping unit (SKU) list which is 86% complete (836 SKUs standardized out of 967 SKUs data received) to date. The finalized master SKU list will be used in DOH's eLMIS and, once utilized appropriately, will help ensure uniform and standard product profiles across the system, promote end-to-end visibility, track inventory utilization and history, and streamline operations across the system by establishing common means for data collection from the final point of care to the DOH central level.

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

Activity 1.2.1. PSCM and PV HWDP: As the Philippines transitions to a more devolved health system, MTaPS has been supporting DOH to update the PSCM and PV HWDP in line with the transition. MTaPS met with FDA to discuss the PV workforce. In line with the devolution and the human resource augmentation, FDA plans to advocate for strengthening the reporting of AEs in Vigiflow at the LGUs. MTaPS will finalize and seek endorsement of the HWDP from DOH in Q4.

Activity 2.1.1 eLearning course on PV: MTaPS and FDA co-developed the course, "Pharmacovigilance Principles and Reporting." It introduced PV general principles and concepts, discussed the AE reporting systems in the Philippines, and encouraged reporting by HFs to improve the safety profile of health commodities in the country. MTaPS and FDA delivered the course as a webinar to 196 attendees (including 119 female, 47 male) from DOH, FDA, CHDs, LGUs, and community-based organizations (CBOs) to ensure its readiness and quality prior to its upload to the DOH eLearning Academy.

Activity 1.2.2. Local Technical Assistance Providers Scheme (LTAPS): MTaPS organized a consultative workshop on LTAPS with 94 participants (72 female, 22 male) from DOH, CHDs, other

USAID IPs, and the Department of Interior and Local Government (DILG). Workshop results will be used to improve the design and approach on the development, implementation, and sustainability of LTAPS.

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

Activity 1.3.1. eLMIS Implementation: MTaPS organized an eLMIS UAT when 39 participants (25 female, 14 male) from DOH, CHDs, LGUs, and other government agencies were introduced to the system. After a comprehensive review of participants' feedback and eliminating duplicates, responses were trimmed down to 255 unique feedbacks. By the end of Q3, 154 (60%) of them had been addressed.

After the UAT, in partnership with Global Fund (GF) recipient Pilipinas Shell Foundation, Inc., MTaPS helped DOH conduct an eLMIS TOT attended by 26 DOH participants (15 female, 11 male). The participants served as master trainers/facilitators for a follow-on end-users training, organized in partnership with GF recipient Philippines Business for Social Progress (PBSP) and attended by 71 participants (40 female, 31 male) from DOH, CHDs, other government agencies, and IPs. The prerequisite activities and checklist to ensure site readiness prior to the eLMIS rollout were presented, including physical inventory count and consultation on the eLMIS rollout plan. MTaPS and DOH visited the CHD warehouses and DOH third-party logistics provider to assess the readiness and determine the strategy on how the eLMIS can be implemented in these settings. DOH supply chain management services, with MTaPS support, demonstrated the eLMIS to the Secretary of Health.

Activity 1.3.2. Quarterly Data Analysis: MTaPS has been working with DOH PD for the past three Qs to process and analyze the quarterly inventory data of ODH priority health commodities including FP, TB, and HIV/AIDS commodities. In Q3, MTaPS organized a learning session on data processing and endorsed the inventory data analysis presentation template to transfer the knowledge to two PD staff to help PD become more independent in processing raw inventory data for analysis. After the session, PD processed the data needed for the January to March 2022 inventory analysis and, with MTaPS facilitation, collected warehouse data for more comprehensive analysis in their regular quarterly report.

Activity 2.4.1. PViMS Implementation: With MTaPS support, PD developed the monitoring tool for PViMS. MTaPS and PD conducted supportive supervision on the use of PViMS in four PMDT sites in CHD region three, where two of them were using PViMS. The other two were using the paper-based FDA suspected adverse reaction (SAR) form due to an erroneous email shared in the PViMS webinar on usernames and passwords. Through the Department Memorandum # 2022-0087 which supports the PViMS implementation, PD reiterated to PMDT facilities that PViMS should be used in reporting AEs for patients enrolled in aDSM. Proper monitoring of aDSM data reporting through PViMS will help build the safety profile of second-line TB commodities to improve patient safety.

PD submitted nine reports generated from PViMS to FDA using the electronic to business (E2B) file—the international standard for sharing AE reports between database systems—that can be generated by PViMS. FDA welcomes the interoperability of PViMS and Vigiflow, as receiving an E2B file helps FDA to be more efficient in performing their regulatory functions and eliminates the need for FDA to encode and validate the completeness of the data reported.

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

Activity 1.4.2. PIES: MTaPS launched a request for proposals and selected a digital provider to support the PIES implementation. The provider has a digital solution that will be provided to the LGUs to connect and streamline the information from different health providers or facilities, public or private, that are part of their HCP network. A kickoff meeting with USAID's ReachHealth and the provider was held to agree on the plans for the PIES implementation.

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

Activity 1.5.1. Quantification of selected commodities: MTaPS assessed the availability of data relevant to quantification of FP and TB commodities. Assessment results will determine the most suitable quantification for DOH to use.

Activity 1.5.2. Capacity Building of POPCOM on Warehouse Management: POPCOM conducted warehouse inspections in their five regional hubs using the warehouse inspection tool included in the warehouse operations manual (WOM) developed with MTaPS support. MTaPS participated in one of the inspection visits to further provide practical technical guidance in using the warehouse inspection tool.

Activity 3.2. Gender and Development (GAD) Modules: DOH Health Policy Development and Planning Bureau (HPDPB) and MTaPS conducted "The Planners' Network Session 8," attended by 272 participants (including 208 female, 63 male) to orient and update DOH planners on 3 upcoming GAD capacity building modules co-developed by HPDBP and MTaPS that will be available in the DOH eLearning Academy. The modules aim to capacitate different health professionals on sex and gender aspects and how to mainstream GAD concepts in pharmaceutical service delivery and health planning. MTaPS will be supporting HPDPB by converting the modules into an e-learning self-paced module to help DOH policy makers adopt gender-sensitive policies.

BEST PRACTICES/LESSONS LEARNED

- Preparatory strategies must be in place to mitigate the impact of a large-scale national event (such as national election) on program implementation. It was critical for MTaPS to designate a governance focal person to closely monitor the situation in the government, particularly leadership changes. Active communication is also vital to ensure that all MTaPS staff are well-informed of any changes or possible changes.
- Face-to-face meetings and activities are still valuable. There are still unyielding benefits in conducting face-to-face capacity building and technical assistance activities compared to webinars, although the latter has proven benefits especially when quarantine restrictions are in place. However, participants who were staff at facilities had competing priorities in webinars as they needed to perform their duties while trying to participate in the webinar. Such conditions and competing priorities do not support a facilitative and effective learning environment.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Conduct webinar on PSCM Overview, Warehouse Management as part of continuous support to provide free access to quality training relevant to supply chain	July 2022
Quantification webinar and exercise	July 2022
MTaPS Year 5 co-development workshop	August 2022
FDA competency mapping exercise	August 2022
Pre-test PCM-PV readiness assessment tool in USG-supported UHC sites as one of key support activities to facilitate development of LTAPS tool kit	August 2022
Facilitate IPC and HCWM TOT for CHDs	August 2022
eLMIS roll out activities and launching ceremony	September 2022
FDA PV and facilitated registration pathway SOP writing workshop	September 2022

Table 23. Quarter 3, FY22, Activity Progress, Philippines – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Support DOH in implementing PSCM roadmap as part of implementing UHC law	1.2		N/A	The DOH DPCB has taken the lead in the finalization of the administrative order (AO) on "Governing Policy on PSCM System Design and Implementation Reforms" and expressed that no further support from MTaPS is needed in this task.
Activity 1.2.1: Support DOH in implementing the PSCM workforce development plan for institutional capacity building of DOH and LGUs	2.1		N/A	MTaPS is working with the DOH to convert the existing modules on PSS, PSCM overview, and warehouse management overview into a self-paced e-learning format. These courses will be uploaded to the DOH eLearning Academy for wider reach and sustainability.
Activity 1.2.2: Capacitate a pool of LTAPs to support institutional capacity building of LGUs for PSCM functions	2.2		N/A	Design of the LTAPs scheme and development of the toolkit is underway.
Activity 1.3.1: Support DOH in implementing the roadmap for an end-to-end eLMIS	3.1		N/A	eLMIS UAT and training has been organized and implementation of eLMIS is underway. eLMIS phase 1 implementation will focus on 4 targeted regions and national-level warehouses, while phase 2 will focus on the remaining 13 regional warehouses and POPCOM warehouses. Phase 3 will focus on eLMIS rollout in USAID-supported UHC implementation sites at targeted LGUs. Before the rollout, MTaPS is working with DOH and PBSP in securing the eLMIS web hosting prior to DOH taking over this task in 2023. MTaPS is also working with DOH and other IPs to apply the eLMIS site readiness assessment tool for the warehouses and HFs at the regional level.
Activity 1.3.2: Support DOH in developing mechanisms and practices for regular data collection and analysis for programmatic and PSCM decision making and streamlining of workflows and processes	3.2		N/A	Practice of regular data collection, analysis, and presentation was established.
Activity 1.4.1: Support DOH and LGUs to institutionalize practices related to procurements through FA and PPM for FP and TB commodities	4.3		N/A	MTaPS has engaged with several potential consultants that will support this strategic procurement activity and has discussed with DOH offices how to further refine the implementation approach given recent changes in government priorities.
Activity 1.4.2: Conduct implementation research on using a digital platform to integrate public and private providers into a local HCPs' networks for information exchange, cross-referral, and cost reimbursements related to medical products and services to support UHC law implementation	4.1		N/A	A vendor of a digital platform provider was selected to start the implementation research with USAID's ReachHealth.

Activity 1.5.1: Support DOH to institutionalize a practice of evidence-based quantification and allocation of TB and FP commodities and to inform procurement, supply planning, and distribution	5.1		N/A	Preparations are underway to conduct capacity building on quantification.
Activity 1.5.2: Support the Commission on Population in implementing segmented subnational SCM of FP commodities	5.1		N/A	MTaPS is assessing whether the existing WOM of POPCOM needs to be complemented with additional SOPs to manage the FP commodities from other procurement entities such as the LGUs in accordance with the Department of Budget and Management approved Devolution Transition Plan (DTP) of DOH. In the DTP, procurement of FP commodities such as combined oral contraceptives (COC) pills and male condoms will be procured by LGUs by 2024.
Activity 2.1.1: Support DOH and FDA in strengthening national PV governance structure and processes for aDSM	5.2		N/A	MTaPS advocated to the FDA on the prioritization of revising the AO for the National Pharmacovigilance (AO 2011-0009). MTaPS shared with the FDA the suggested changes in the AO on PV and will further work with the FDA to improve the draft in the next Q. As the revision of the AO may take longer to be finalized, MTaPS is advocating with the FDA to parallelly develop SOPs on the different PV methods in support of DOH public health programs.
Activity 2.2.1: Support DOH and FDA in registering FP and TB products by optimizing and enhancing product registration process and by targeted support	5.2		N/A	To systematically respond to the FDA request of building their capacity in implementing facilitated registration pathways (FRPs), MTaPS will work with the FDA to conduct a competency mapping exercise. These capacity building activities were agreed with the FDA Director General on June 7, 2022. The FRP Implementing Rules and Regulation for Abridge and Verification Review Pathway (FDA Circular No. 2022-004) was signed on June 16, 2022.
Activity 2.3.1: Support HFs on improved practices on IPC and HCWM related to climate risk mitigation	5.3		N/A	MTaPS has been working with the Health Facilities Development Bureau (HFDB) to develop TOT materials relevant to IPC and HCWM. MTaPS has been working with DOH to organize a TOT on IPC and HCWM. Conducting the TOT and activities thereafter will help improve practices and compliance with IPC and HCWM standards in HFs.
Activity 2.4.1: Support DOH in rolling out active PV information system	5.3		N/A	PViMS is being rolled out to all PMDT sites. Monitoring on the use of PViMS with the PD in one region was completed. PViMS interoperability with Vigiflow was completed. The PD will further discuss with the DPCB and LCP training team the request of the PMDT sites for a face-to-face training, and how they can collaboratively address identified issues during the monitoring process.
Activity 3.1: Provide PSCM- and PV-related inputs to USAID partners	5.1		N/A	MTaPS is actively taking part in the UHC implementation planning with other USAID IPs.
Activity 3.2: Support gender equality and women's empowerment in PSS	5.2		N/A	MTaPS organized an orientation and advocacy session with key DOH and CHDs officials on gender in PSS. Development of an e-learning course on gender in PSS is underway.

PEPFAR ACTIVITIES

OVERVIEW

For PEPFAR-funded activities, MTaPS Philippines aims to accelerate progress toward controlling 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

PSCM: Pre-exposure prophylaxis (PrEP) and TLD were already included in the Philippine National Formulary (PNF) as of January 2022 and September 2021, respectively. MTaPS supported DOH on quantification activities relevant to the PrEP and viral load cartridges and facilitated the arrival of the previous PrEP and viral load cartridges donated by USAID in the country. MTaPS also engaged HIV/AIDS care stakeholders on eLMIS activities such as the end-users training and rollout planning.

Patient-centered care: MTaPS and FDA delivered a webinar on PV for HIV/AIDS care facilities in three USAID-supported regions (National Capital Region [NCR], 3, 4a). MTaPS supported DOH and FDA to orient the CBOs on PV reporting using the FDA's SAR form. MTaPS supported DOH to develop an IPC checklist tool applicable to HFs, such as HIV/AIDS outpatient care facilities. Using this IPC checklist tool, MTaPS conducted baseline assessments of IPC practices in 13 CBOs. MTaPS also assessed the current practices of these 13 CBOs on PV recording and reporting.

QUARTER 3 ACHIEVEMENTS & RESULTS

STRATEGIC OBJECTIVE 1: STRENGTHEN PSCM OF HIV/AIDS COMMODITIES

Activity 1.1: Support HTA of PrEP, TLD, and other necessary HIV/AIDS products and their inclusion in the PNF

Completed.

Activity 1.2: Support DOH in sustainable roll out of PrEP and aggressive implementation of TLD transition plan

MTaPS is engaging stakeholders concerning the TLD transition which is currently the preferred first-line treatment for HIV/AIDS in the Philippines. MTaPS clarified with the DOH Epidemiological Bureau and DPCB the criteria for clients who will transition to TLD. The criteria are critical for the quantification of the TLD and to help ensure the availability of this commodity in the country.

Activity 1.3: Support institutional practice of data-driven quantification and procurement planning

MTaPS has prepared the data collection template for the HIV/AIDS quantification exercise and consulted with DOH on the available data to be used for quantification of ARVs, PrEP, HIV test kits, and viral load cartridges.

Activity 1.4: Support DOH in using appropriate procurement mechanisms for addressing procurement-related bottlenecks for HIV/AIDS commodities

To address the issue of multiple bidding failures due to price limitation set by the Sexually Transmitted Disease/AIDS Cooperative Central Laboratory, MTaPS conducted a market analysis on the pricing of viral load cartridges. The market analysis outlines the variation in prices between the local supplier and international organizations such as Stop TB Partnership's Global Drug Facility (GDF). Based on the analysis, the unit price of the local supplier is around 127% higher than GDF's. The results of the market analysis identified that negotiated procurement through GDF is the recommended procurement option for viral load cartridges using government funds if the continuous availability of viral load cartridges is the top consideration for the procurement, and not the availability of after sales services, such as training of personnel and lending of a GeneXpert machine.

MTaPS submitted all the documentations required by DOH to facilitate the arrival of the USAID-donated viral load cartridges and PrEP in the country. For the viral load cartridges, MTaPS coordinated with DOH the accelerated certificate of product registration to FDA to allow entry of the product into the country. MTaPS is facilitating the engagement with DOH, FDA, and other IPs to respond to their needs for the successful arrival of these lifesaving commodities in the country, including an allocation list to HFs aimed to improve the availability nationwide.

Activity 1.5: Support DOH in strengthening the distribution and inventory management system for HIV/AIDS commodities

MTaPS visited one of the CBOs supported by PEPFAR, the HIV/AIDS Support House Inc (HASH - Quezon City), to better understand the flow of commodities from the facility to clients and how the facilities receive commodities from DOH Central and CHDs. Another purpose of the visit was to respond to the request of HASH in the tracking of their inventory (e.g., stock on hand and months of stocks) and management of their commodities. As DOH's long-term plan is to integrate the logistics management of HIV/AIDS commodities in the eLMIS, DOH invited the CBOs, CHDs, and HIV/AIDS IPs to participate in the eLMIS end-users training.

STRATEGIC OBJECTIVE 2: STRENGTHEN PATIENT-CENTERED PHARMACEUTICAL SERVICES FOR HIV/AIDS

Activity 2.1: Support DOH in developing and implementing a PSCM support plan for MMD and differentiated service delivery (DSD)

MTaPS agreed with the CHD of NCR, regions 3 and 4a in coordination with the USAID Meeting Targets and Maintaining HIV Epidemic Control (EpiC) project to engage the 13 sites currently implementing DSD to investigate the PSCM-related challenges and lessons learned in implementing DSD and MMD in their facilities. Results of the consultation along with the assessment of EpiC on DSD will help identify critical factors for developing and setting up effective DSD models of drug distribution and viral load testing in the Philippines.

Activity 2.2: Support DOH in the aDSM of TLD and PrEP through the implementation of the PViMS

MTaPS supported the DPCB, PD, and FDA to agree on the PV method for the TLD and PrEP, the new HIV/AIDS commodities for wider use in the country. As active surveillance is resource-intensive—and

due to the limited human resources capacity of DOH—DOH and FDA agreed to adopt the targeted spontaneous method for PV of TLD and PrEP.

HCWs from HIV/AIDS care facilities were among the participants of the PV webinar "Pharmacovigilance Principles and Reporting" conducted with FDA, aimed to build their capacity on PV. MTaPS further worked with CHDs to understand the capacity of selected CBOs and, through visits, mentored them in AE reporting using FDA's SAR form. Results of the mentoring visits were shared with the CHDs to further outline the activities needed to build the capacity of these CBOs on PV as well as the other HIV/AIDS care facilities. MTaPS will further support FDA and DOH to develop and implement guidelines on setting up targeted spontaneous reporting.

Activity 2.3: Support HIV facilities in strengthening practices for IPC

MTaPS worked with HFDB to develop an IPC checklist tool for HIV/AIDS outpatient care facilities and agreed with DOH and CHDs on the approach and activities to strengthen the IPC practices at these facilities. Using the IPC checklist tool, MTaPS, DOH, CHDs, and other IPs completed the IPC baseline assessment of 13 selected HIV/AIDS CBOs to help the facilities identify activities to strengthen their respective IPC practices and reduce the risk of COVID-19 transmission among HCWs and clients visiting the CBOs. The 13 CBOs are the same sites mentioned in activity 2.1. MTaPS shared the IPC baseline assessment results with DOH and CHD to collaborate further on how to support the improvement of IPC practices in other HIV/AIDS care sites. MTaPS further organized a webinar on IPC basic principles and their importance to HIV/AIDS outpatient sites which was attended by 86 participants (including 45 female, 38 male) from CBOs, hospitals, social hygiene clinics, and IPs based in the NCR and regions 3 and 4a.

BEST PRACTICES/LESSONS LEARNED

Building upon previous implementation of MTaPS activities and deliverables has helped expedite the delivery of PEPFAR activities. For example, the PEPFAR team was able to quickly complete the technical brief on the "Identification and implementation of appropriate procurement mechanisms for viral load cartridge" and the "Health Technology Assessment of TLD" by referring to previous technical reports developed by MTaPS.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Quantification orientation	July 2022
Quantification exercise	August 2022
Post-intervention evaluation and debriefing of selected PEPFAR sites on IPC activities	August 2022
Mentoring of additional PEPFAR site (social hygiene clinics) to strengthen IPC practices	August 2022
eLMIS site readiness assessment and orientation for PEPFAR sites	August 2022
Supportive supervision on strengthening PV reporting using the FDA SAR form	August 2022
Facility visit for implementation of DSD (focused on ARV distribution and viral load testing)	August 2022

Table 24. Quarter 3, FY22, Activity Progress, Philippines – PEPFAR

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1: Support HTA of PrEP, TLD, and other necessary HIV/AIDS products and their inclusion in the PNF	5.1	N/A	N/A	Completed.
Activity 1.2: Support DOH in sustainable roll out of PrEP and aggressive implementation of TLD transition plan	5.1	N/A	N/A	MTaPS has been engaging DOH to understand the PSCM considerations on the TLD transition plan in preparation for the quantification exercise.
Activity 1.3: Support institutional practice of data-driven quantification and procurement planning	5.1	N/A	N/A	MTaPS worked with DOH to conduct quantification of PrEP and viral load testing cartridges. A comprehensive quantification exercise is being planned to take place in August 2022. The team is supporting DOH to collect the needed data and identify the scope of quantification.
Activity 1.4: Support DOH in using appropriate procurement mechanisms for addressing procurement-related bottlenecks for HIV/AIDS commodities	5.1	N/A	N/A	MTaPS conducted a procurement mapping to identify bottlenecks and possible solutions to address them for procurement of HIV commodities through domestic funding. MTaPS developed the technical advisory document on viral load cartridges. MTaPS is coordinating with DOH to further understand the gaps of procuring HIV/AIDS commodities using government funds.
Activity 1.5: Support DOH in strengthening the distribution and inventory management system for HIV/AIDS commodities	3.2	N/A	N/A	MTaPS is coordinating with the PD and DPCB to align the data collected between the two offices. This alignment is relevant to the full eLMIS implementation along with engagement with different stakeholders relevant to the eLMIS. MTaPS is working with DOH to apply the eLMIS site readiness assessment tool to selected PEPFAR sites.
Activity 2.1: Support DOH in developing and implementing a PSCM support plan for MMD and DSD	5.2	N/A	N/A	MTaPS is reaching out to USAID EpiC and USAID DSD Project to harmonize and complement the PSCM component in the DSD implementation plan in the country.
Activity 2.2: Support DOH in the aDSM of TLD and PrEP through the implementation of the PViMS	5.3	N/A	N/A	MTaPS, DOH, and FDA agreed that implementing active PV is beyond their current resources and capacity. MTaPS is supporting them to build the capacity of the HIV/AIDS care facilities on PV reporting using the targeted spontaneous method for PV of TLD and PrEP.
Activity 2.3: Support HIV facilities in strengthening practices for IPC	5.3	N/A	N/A	MTaPS is supporting the visited CBOs to develop action plans to improve IPC practices in their HFs. MTaPS is working with DOH to further build the capacity of the HIV/AIDS outpatient care facilities to improve their IPC practices as well.

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, and related pharmaceutical services. As part of its support to Rwanda's MOH and Rwanda FDA, MTaPS focuses its technical assistance on both the public and private pharmaceutical sectors by continuing support to improve regulatory systems at Rwanda FDA, improving pharmaceutical-sector oversight and management by bolstering DTCs, and ramping up PV systems.

MTaPS' strategic approach to strengthening Rwanda FDA is to build their institutional capacity to address key areas of weakness and gaps identified in the WHO GBT assessments conducted in November 2018 and September 2021, by MTaPS in June 2021, and by the Tanzania Medical Devices and Drugs Authority in April 2022. MTaPS' approach also includes support to implement recommendations in related institutional development plans to assist the FDA achieve WHO GBT ML 3. 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 its regulatory IMS. MTaPS supports MOH in strengthening DTCs at HFs to monitor HF performance in pharmaceutical management, including for MNCH medicines.

CUMULATIVE PERFORMANCE TO DATE

Over the past three years, MTaPS has continued to provide PSS support to MOH and its institutions, including Rwanda FDA, the MCCH division, and RBC. Through support to Rwanda FDA, a four-year Strategic Plan (2021–2024), four regulations, and other pharmaceutical-sector regulatory documents (e.g., guidelines, manuals, SOPs) were developed. In PY4 Q2, the first medicine dossier assessment retreat was conducted. Rwanda FDA submitted 310 of 735 unassessed applications to the workshop. All 310 underwent a first screening. Of the 310 applications, 149 completed a first assessment and 102 completed a second assessment. However, only 2 of the 102 applications were recommended for peer review; the rest (100 of 102) are pending with queries to be addressed by the applicants. As part of implementation of a QMS at Rwanda FDA based on ISO 9001:2015 requirements, MTaPS supported an internal audit in June 2021. Also, a quality manual and corresponding SOPs were approved by Rwanda FDA's board in May 2021. MTaPS participated in Rwanda FDA's self-benchmarking assessment in September 2021, which assessed progress and remaining gaps on the journey to ML 3. MTaPS has contributed to strengthening five pharmaceutical regulatory enforcement mechanisms—the national regulatory system, vigilance, product registration and marketing authorization, licensing establishments, and regulatory inspection.

In information management, MTaPS supported Rwanda FDA in adapting PViMS for spontaneous reporting of AEs, including Ebola and COVID-19 vaccine AEFIs and for active safety monitoring of DTG-based ART regimens. From June 2021 to June 2022, 1,238 AEFIs (292 of which were serious AEs) were

reported to Rwanda FDA, who reported them to WHO. The use of PViMS will ensure that medicine safety monitoring reports are quickly received and analyzed by Rwanda FDA, enabling feedback to clients, patients, and health facilities in a timely manner. MTaPS is also providing technical assistance to replace the existing electronic regulatory IMS, the PRIMS, with the new IRIMS to increase the efficiency of Rwanda FDA's regulatory functions. The IRIMS test system was deployed on the local Rwanda FDA server. By PY4 Q2, 35 Rwanda FDA staff had been trained on the system.

To address the human resources capacity gap, MTaPS supported training in pharmaceutical management for 685 Rwanda FDA staff and other HCPs in MER, good manufacturing practices, good review practices, good reliance practices, PV, QMS, among other topics. As part of long-term sustainability of capacity building, MTaPS provided technical support to develop online eLearning courses in MER and PV, which are hosted on the Rwanda FDA server. In June 2021, during the annual NPC conference, MTaPS supported MOH and Rwanda FDA in disseminating information on pharmaceutical service accreditation standards and medicine safety to 440 participants (145 female, 295 male).

MTaPS provided technical support to MOH to categorize antibiotics per WHO recommendations according to AWaRe and to include them in the NEML to help prescribers use antibiotics more effectively for AMR containment.

In MNCH, guidelines on regulating medical gases were developed to ensure quality oxygen for managing hypoxic newborns and children as well as cases of COVID-19, where medical oxygen is an essential part of treatment. A rapid assessment of the supply, availability, and use of oxygen, equipment, and medical devices in the respiratory ecosystem was conducted, and MTaPS is supporting the development of a national roadmap on the supply and management of oxygen. MTaPS also supported MOH in a rapid assessment of the use of medicines for postpartum hemorrhage and eclampsia. As a result of the assessment, MTaPS supported the development of an implementation manual for cold storage of oxytocin to guide health centers and hospitals on procedures for correct storage and management.

To strengthen PV, MTaPS supported the development of a costed multi-year national implementation plan to guide the implementation of medical safety monitoring activities. MTaPS is working with MOH, RBC, and Rwanda FDA to conduct active surveillance of DTG-based regimens to determine DTG's safety. The study protocol, its implementation plan, SOPs, and a patient consent form were submitted to the Rwanda National Ethics Committee, which approved them on September 15, 2021. Implementation of the active surveillance study is ongoing at 20 HFs. MTaPS supported the RBC in conducting a situational analysis on ARV MMD and pack size, which facilitated the roll-out of a 6MMD using a recommended 90-pack size. MTaPS supported the development of a manual to improve pharmaceutical management in HFs via DTCs, now known as MTCs, which was validated with a group of 29 district hospitals, 5 referral hospitals, and 5 university teaching hospitals out of the 47 facilities involved in an earlier DTC functionality assessment survey. The MTC manual will guide their establishment in HFs and has tools and SOPs to guide health workers on monitoring medicines, including MNCH medicine use in the district and AE reporting.

QUARTER 3 ACHIEVEMENTS & RESULTS

In Q3, MTaPS supported Rwanda FDA in stakeholder validation of a comprehensive five-year Rwanda FDA Business Plan 2021–2026 to enhance financial capacity and mobilization of required resources to

sustain Rwanda FDA operations. In addition, a technical brief on the development process of the business plan was created to provide guidance in case of a future similar process in the country or elsewhere. The software consultant conducted hands-on training for 142 staff on managing and using IRIMS. Data migration and discussion on availing a hosting environment are ongoing.

As part of support to strengthen MTCs in hospitals and CQI for appropriate use of medicines, including those used in MNCH, MTaPS printed seed copies of the MTC manual and MNCH checklist. MTaPS also provided technical support in recrafting the national oxygen availability and management roadmap, which is still under review by MOH and stakeholders.

To continue strengthening the PV system, MTaPS conducted PV training for 12 members of the National Pharmacovigilance Advisory Committee (NPAC) and 7 staff of Rwanda FDA's Pharmacovigilance and Safety Monitoring division. This equipped the participants with the required PV knowledge and skills to play their advisory and technical roles and strengthen decision making based on evidence.

In the ongoing active surveillance of DTG-based regimens, more than 1,430 participants have been enrolled thus far, and only 2 AEs, i.e., mild skin rashes, have been reported.

BEST PRACTICES/LESSONS LEARNED

- To facilitate software installation, regular updates of and discussions on progress and challenges with the Rwanda FDA management team and focal persons are required, including clarifications on highly technical software requirements.
- MTaPS' advocacy to and the close engagement and involvement of top management are important for implementation of the IRIMS at Rwanda FDA. Top management's guidance and oversight on the implementation of activities has played a vital role in the activity's success.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
FS activity 1.1.1: Strengthen the capacity of Rwanda FDA in regulating pharmaceuticals used in HIV/AIDS, MNCH, and FP/RH programs ■ Review legislative framework for medical devices to include IVDs to ensure adequate regulatory provisions	July-August 2022
FS activity 1.2.1/ARPA activity 1.2.1: Support functionality of DTCs and enhance their capacity to manage medicines at facility level ■ Conduct training of DTCs in CQI and monitoring appropriate use of medicines, including management of MNCH and FP products and storage of oxytocin ■ Support MOH in integrating pharmaceutical services standards for accreditation into the package for roll out of hospital accreditation standards implemented by the Rwanda Integrated Health Systems Activity project	July-August 2022
FS activity 2.1.1: Support replacement of PRIMS with IRIMS for effective regulatory and PV functioning of Rwanda FDA ■ Provide customization and installation of IRIMS on Rwanda FDA server ■ Conduct second training of selected Rwanda FDA staff as master trainers in IRIMS system operations and external customers ■ Link IRIMS with the Rwandan Revenue Authority payment gateway, national product catalog, and electronic single-window system	July-August 2022

FS activity 3.2.1: Support establishment of a system for active surveillance of the new DTG-based regimens for HIV/AIDS treatment ■ Support ongoing implementation of the active surveillance system for DTG-based regimens at 20 study sites	July-September 2022
ARPA activity 3.1.2: Enhance the capacity of RBC to manage MMD of ARV medicines to ART patients ■ Support RBC in conducting a feasibility study on the proposed adjustment from monthly to bimonthly dispensing (2MMD) for adherent breastfeeding mothers and new clients on ARVs	July-September 2022
ARPA activity 3.2.1: Support strengthening the existing AE/AEFI spontaneous reporting system for medicines ■ Support PV training, including use of PViMS, for health care providers across programs and HFs	July-September 2022

Table 25. Quarter 3, FY22, Activity Progress, Rwanda – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
FS Activity 1.1.1: Strengthen the capacity of Rwanda FDA in regulating medical products, including those used in HIV/AIDS, MNCH, and FP/RH programs **Activity Description:** Develop separate guidelines for registering IVDs	1.2		N/A	Reference documents for developing guidelines for registering IVDs were gathered. The draft guidelines were developed and will be submitted for technical review.
FS Activity 1.1.2: Streamline registration of medical products (essential medicines, vaccines, medical devices), including those used in HIV/AIDS, MNCH, and FP programs (activity continuing from FY21) **Activity Description:** Support implementation of the designed eLearning module on MER in collaboration with the University of Rwanda, Rwanda FDA, and NPC	2.2		N/A	The MER and PV eLearning modules were uploaded to the Rwanda FDA server in October 2021. MTaPS is currently working to support the Rwanda FDA to include an electronic certificate in the modules. After this, the links will be shared with MOH and NPC. NPC has agreed to award continuous professional development points for the annual relicensing of pharmacists.
FS Activity 1.2.1: Support functionality of DTCs and enhance their capacity to manage medicines at facility level **Activity Description:** Conduct training of DTCs in CQI and appropriate use of medicines; support MOH's integration of pharmaceutical services standards	5.2		N/A	MTaPS printed seed copies of the MTC manual and MNCH checklist. On other MNCH activities, the implementation manual for cold storage of oxytocin was reviewed and approved by a joint MCH TWG and is pending final approval from MOH. It will be used for orienting HCWs on managing and storing oxytocin planned for Q4.
FS activity 2.1.1: Support replacement of PRIMS with IRIMS integrated with PViMS for effective regulatory and PV functioning of Rwanda FDA **Activity Description:** Support to customize and install IRIMS on Rwanda FDA servers; conduct training of selected Rwanda FDA staff as master trainers in IRIMS system operations	3.1		N/A	IRIMS internal user accounts were created. About 140 Rwanda FDA staff were given basic training on IRIMS use and management. Further training is planned and will also include external customers. Data migration was completed June 24. Currently, data is being processed and cleaned to obtain data sets to be uploaded into IRIMS. Negotiations on provision of a data hosting environment are ongoing. Going live is planned for Q4 of PY4.
FS WP Activity 3.2.1: Support establishment of a system for active surveillance of the new DTG-based regimen (activity continuing from FY21) **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		N/A	MTaPS continued to support the RBC and Rwanda FDA in supportive supervisory visits to the 20 selected HFs for active surveillance of DTG-based regimens. By the end of June, 1,432 participants had been enrolled across the 20 study sites. Only 2 AEs, i.e., mild skin rashes, have been reported.

EBOLA RESPONSE ACTIVITIES

OVERVIEW

The 2004 outbreak of EVD in West Africa was the largest, most severe, and most complex Ebola outbreak in history and required strategies to prevent the spread of the disease to other countries. Most cases occurred in DRC, Guinea, Sierra Leone, and Liberia. Without an effective early warning system, the virus can spread rapidly within the region, revealing the failures of the disjointed and under-resourced health care system in Africa. HCAIs are a major public health problem that impact morbidity, mortality, and quality of life as well as presenting a significant economic burden for the health system. However, a sizable percentage of these infections are preventable through effective IPC. IPC is also important to prevent the occurrence and spread of infections, thereby reducing the need for antibiotics and other expensive treatment measures. Lessons learned from outbreak measures from other countries have enabled Rwanda to think ahead and develop a NSP for preventing EVD, a national IPC policy, national IPC guidelines, and other documents through collaboration with public and private stakeholders. This early planning and availing of strategic documents are among the health system strategies put in place to ensure that an early preparedness and response team in the health sector is available to prevent EVD outbreaks and has response tools in case there is an EVD outbreak.

CUMULATIVE PERFORMANCE TO DATE

MTaPS Rwanda is one of the key stakeholders working with MOH and RBC to ensure that the documents developed on EVD prevention and control are reviewed by experts, validated, and disseminated to HFs for EVD preparedness. In May 2021, MTaPS engaged two consultants to develop and review key strategic documents for EVD prevention and control for MOH. The newly available IPC documents and NSP for EVD were reviewed by experts who provided tangible input to strengthen them. MTaPS also supported both MOH and RBC in developing IPC risk communication materials to ensure that IPC messages are communicated effectively to reduce and contain infections to an acceptable minimum level in the case of an outbreak.

MTaPS provided technical support to MOH, RBC, and its stakeholders in the review of the national IPC policy, NSP, contingency plan for EVD, and national IPC guideline. The national IPC guideline has been completed and is pending MOH sign-off. In addition, MTaPS supported development of the national Ebola IPC guidelines, training materials for EVD, 14 job aids, 15 tools, and 13 SOPs on Ebola IPC and the Ebola IPC compliance monitoring tool. The Ebola IPC compliance monitoring tool has been completed and piloted alongside the SOPs and IPC guidelines in Kibagabaga and Muhima District Hospitals as part of validation.

In Q2, the public health emergency response division of RBC and the MOH quality assurance unit proposed that the documents be reviewed by quality and standards experts and TWGs for additional technical input and to incorporate more national context before final validation and approval by MOH. They also proposed that an IPC training manual be developed.

QUARTER 3 ACHIEVEMENTS & RESULTS

The developed documents have been reviewed and the IPC training manual has been developed. A second review and validation are planned for Q4.

MTaPS procured equipment (50 remote temperature screening devices [thermoflash], 10 tablets, and 10 modems with 3G internet connection for 6 months] to facilitate entry/exit EVD screening and reporting at Rwanda's ports of entry. The equipment will also be utilized during the IPC simulation exercise at the points of entry. Handover of the procured materials to RBC was done on May 5, 2022.

BEST PRACTICES/LESSONS LEARNED

Constant engagement of key stakeholders during the development process is critical. After stakeholders validated the documents, MOH staff reviewed the validated them and requested changes in document formats to suit MOH requirements, which requires additional time for completion. MTaPS is engaging MOH regularly and involving them in review of the documents to expedite completion.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Conduct training of HCPs on the developed materials (IPC TOTs for the central level)	July–September, 2022
Undertake simulation EVD drills at selected ports of entry to test communication among health authorities, the nearest district hospitals, and the national surveillance system	July–September, 2022

Table 26. Quarter 3, FY22, Activity Progress, Rwanda - EBOLA RESPONSE

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1: Provide training using existing training packages **Activity Description:** MTaPS will support a second review of the updated IPC guidelines, SOPs and job aids and training HCPs on implementation of the developed documents together with the simulation exercise at country points of entry.				MTaPS supported procurement of IT equipment to support the field simulation exercise (50 thermometers, 10 tablets, and 10 modems, each with 6 months connectivity), which were handed over to RBC in Q3. Development of the IPC training manual was completed. The first review of developed IPC guidelines, SOPs, and guidelines to include additional technical input and more national context was completed. A second review by MOH and RBC is pending.

P. SENEGAL

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS Senegal is to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. This will be achieved 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 MOH and its partners, MTaPS continues to focus on interventions to support progress on the pathway 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 14 targeted hospitals and of the IPC and AMS national programs.

CUMULATIVE PERFORMANCE TO DATE

MTaPS has helped country counterparts make progress in MSC/AMR by supporting 3 out of 4 (75%) level 2 actions, 2 out of 4 (50%) level 3 actions, and 2 out of 4 (50%) level 4 actions, as established by the JEE v.2. MTaPS provided support to the PREVENTION/AMR TWG under the aegis of the OH Secretariat to develop and technically validate the national AMS plan, to support the regional development committee's (RDC's) ownership and implementation of its OH/AMR action plan, and to consolidate the 2021 AMR action plan and the multisectoral health security action plan by following the e-SPAR that was approved by the OH high council steering committee.

Senegal received a score of three, or "developed capacity," for IPC in the JEE assessment of December 2016. MTaPS has targeted its work toward eight specific facilities that scored below the level received by the country in general. To date, MTaPS has supported the implementation of the eight hospitals' IPC improvement plans. They developed the plans to address gaps identified using the WHO IPCAF. As a result:

- two hospitals improved their IPC capacity from inadequate to intermediate
- four hospitals improved their IPC capacity from basic level to intermediate
- one hospital improved its IPC capacity from basic level to advanced
- one hospital continued to sustain its advanced IPC capacity level

As such, MTaPS supported 3 out of 5 (60%) level 2 WHO benchmark actions for IPC and 3 out of 6 (50%) level 3 actions.

In the area of AMS, MTaPS has supported the development and validation of the multisectoral national AMS plan and the national antibiotic policy and STGs that include the WHO AWaRe categorization of

antibiotics. As a result, MTaPS has supported 3 out of 4 (75%) of the benchmark actions recommended for level 2. MTaPS also supported 17% (1 out of 6) of the actions for level 3 in AMS.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 2: IPC

Activity 2.5.3: Support the revitalization of ICCs in selected district and regional hospitals.

MTaPS worked with DQSHH to revitalize the ICCs of five additional health HFs. DQSHH began the revitalization process by using the WHO IPCAF tool to conduct baseline assessments at the level three Abass Ndao Hospital of Dakar, the level two hospital of Kédougou, the level two hospital of Kaolack, the level three Fann Hospital of Dakar, and the level two hospital of Sédhiou. The results of the assessments are summarized in the table below.

Table 27. Assessment summary of ICC revitalization in select district and regional hospitals

IPC Core Components	Abass Ndao	Kédougou	Kaolack	Fann	Sédhiou
	Score/100				
1. IPC program	57.5	50	57.5	75	67.5
2. IPC guidelines	25	7.50	12.5	62.5	10
3. IPC education and training	30	25	20	30	20
4. HAI surveillance	27.5	10	30	40	25
5. Multimodal strategies	0	00	0	0	0
6. Monitoring/audits of IPC practices and feedback	0	00	0	0	0
7. Workload, staffing, and bed occupancy	40	60	30	40	65
8. Built environment, materials, and equipment for IPC at the facility level	52.5	65	37.5	60	75
Total score/800	**232.5**	**217.50**	**187.5**	**307.5**	**262.5**
IPC capacity level	**Basic**	**Basic**	**Inadequate**	**Basic**	**Basic**

0 – 200: Inadequate; 201 – 400: Basic; 401 – 600: Intermediate; 601 – 800: Advanced

All the facilities surveyed are at the inadequate or basic IPC capacity level. After completing the review of the five hospitals' improvement action plans, MTaPS worked with DQSHH to identify high-priority activities for MTaPS to support during the next quarter to address the IPC gaps identified in all five hospitals.

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.

Following the Minister of Health's official endorsement of the antibiotic treatment policy and STGs that consider the WHO AWaRe categorization of antibiotics, MTaPS supported the NCAT's organization of a meeting in May to discuss next steps for implementing the approved antibiotic STGs. Meeting participants decided to move forward with the following actions:

- NCAT's three technical groups—focused on (1) the antibiotic treatment of community infection of children and adults, (2) the antibiotic treatment of HCAIs, and (3) antibiotic prophylaxis,

respectively—will share their suggestions on the format of the STGs and the latest versions of the antibiotic STGs training modules.
- The NCAT Secretariat will finalize the plan for the dissemination of and training on the antibiotic treatment STGs.
- NCAT will plan a baseline assessment of the antibiotic prescribing, dispensing, and use practices in HFs.

BEST PRACTICES/LESSONS LEARNED

Leadership can support broader and more inclusive awareness and practice of IPC. MTaPS worked with DQSHH to conduct a baseline assessment of Sédhiou Hospital, one of the five hospitals prioritized for the revitalization of their ICCs. The director of the Sédhiou Hospital decided to include the whole hospital's staff in the hospital's baseline assessment activity. He provided the additional funding required beyond MTaPS funds. He stressed that the intent is to build the whole team's awareness and commitment to continuously improve IPC practices in this brand-new hospital.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
MTaPS will support the USAID initiative for the five GHSA IPs in Senegal to organize a workshop for a joint 2023 work planning session using a multisectoral approach under the aegis of the OH Secretariat.	July–August 2022
MTaPS will work with DQSHH/MOH to support the sixth hospital's baseline assessment. MTaPS will also assist the five hospitals to implement their improvement action plans which were developed during their baseline assessments.	July–September 2022
MTaPS will support NCAT to prepare and conduct training sessions of supervisors and ICC antibiotic subgroups on the MOH-approved antibiotic policy and STGs.	July–September 2022

Table 28. Quarter 3, FY22, Activity Progress, Senegal – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Strengthen the functionality of the AMR TWG by supporting effective coordination through regular meetings **Activity Description:** Support the PREVENTION/AMR working group to organize a quarterly meeting under the aegis of the SP HCNSS/OH	5.4	1.1		MTaPS continued providing technical support for effective coordination through regular meetings under the aegis of the OH Secretariat, and in collaboration with Breakthrough Action, FAO, WHO, PATH/FAO/Fleming Fund, and REDISSE of the World Bank.
Activity 2.5.2: Provide technical assistance for supportive supervision to increase compliance with the updated IPC guidelines and standards **Activity Description:** Support DQSHH's biannual supervision visits, prioritizing more focused support for the continued improvement of poorly performing HFs to comply with the updated IPC guidelines	5.4	2.5		MTaPS is supporting DQSHH's biannual supervision visits in a complementary manner with REDISSE/World Bank.
Activity 2.5.3: Support the revitalization of ICCs at five selected district and regional hospitals **Activity Description:** Work with DQSHH/MOH to select and conduct baseline assessments of the six new hospitals using WHO's IPCAF and HHSAF	5.4	2.5		In preparation for extending ICC revitalization work to these six new hospitals, MTaPS provided technical and financial support to DQSHH to organize baseline assessments for five hospitals' ICCs. The sixth hospital's baseline assessment is planned for next Q.
Activity 2.5.4: Support the development, dissemination, and implementation of the National IPC Strategic Plan **Activity Description:** Support DQSHH to develop, disseminate, and implement the National IPC Strategic Plan to enable the rapid expansion of the ICCs revitalization process	5.4	2.5		In collaboration with DQSHH, MTaPS has completed the process to subcontract with a consulting firm to develop the national IPC strategic plan. This work is in progress.
Activity 3.1.1: Support the implementation of capacity building interventions to increase compliance with antibiotic STGs **Activity Description:** Support NCAT to increase adherence to antibiotic therapy STGs in the eight selected hospitals through CQI practices by promoting supportive supervision and monitoring	5.4	3.1		NCAT will prepare and conduct training sessions of supervisors and ICC antibiotic subgroups on the MOH-approved antibiotic policy and STGs.

EBOLA RESPONSE ACTIVITIES

OVERVIEW

Senegal received notification of an EVD epidemic in the Republic of Guinea on February 14, 2021. MOH immediately set up the IMS to work with partners and stakeholders to develop and implement an EVD response preparedness plan that will strengthen preventive measures and epidemiological surveillance activities, particularly at the more at-risk entry points in the southeastern part of Senegal including the regions of Kédougou, Kolda, Sédhiou, Tambacounda, and Ziguinchor.

CUMULATIVE PERFORMANCE TO DATE

MTaPS supported a workshop to finalize 32 SOPs on case management (6), IPC (8), surveillance (9), behavior change communication (4), logistics (3), and vaccination (2). As the IMS requested support for the integration of SOPs for psychosocial care, MTaPS provided technical and financial support for a workshop to develop SOPs for psychosocial care of patients, families, and HCWs affected by Ebola.

MTaPS proactively supported the revitalization of the IMS at the HEOC by engaging with MOH counterparts including the HEOC, the Directorate of Disease Control, and the head of Ebola IMS. MTaPS participated regularly in weekly meetings organized by the HEOC and Ebola/IMS to provide technical support for the review of the Ebola preparedness plans, including detailed activities and a timeline.

QUARTER 3 ACHIEVEMENTS & RESULTS

IPC, INCLUDING WASH

In April 2022, MTaPS supported a workshop to validate the SOPs developed for psychosocial care and integrated these into the finalized manual.

From June 19 to 30, 2022, MTaPS provided technical and financial support to the IMS to conduct a baseline assessment of the treatment and transit centers dedicated to the isolation of cases of EVD in the regions of Kédougou and Tambacounda, which were identified in the national multisectoral plan as high-risk areas. The assessment also included the entry points to the Kédougou and Tambacounda regions which share borders with Mali and Guinea, respectively, and involved IMS members, local administrative authorities, and concerned medical regions and health districts. The objective was to take stock of the available and functional equipment and staff already trained in Kédougou and Tambacounda and to assess, with administrative and health authorities, the regions' state-of-preparedness to respond to an EVD outbreak.

BEST PRACTICES/LESSONS LEARNED

- Documented lessons and written guidelines available at the SDP level are important for sustaining local capacity. During the first response to EVD in Senegal, government counterparts acquired essential capacities which made it possible to control the disease. A recent evaluation (June 19-30, 2022) conducted by IMS showed that due to a lack of documentation (e.g., references and guides)

available at SDPs, these achievements have partially or totally disappeared in regions at risk such as Kédougou and Tambacounda.

- MTaPS supported IMS EVD to update the SOP manual with the integration of psychosocial care. MTaPS also intends to continue supporting the dissemination of the SOP manual in 22 selected districts and its use for needs assessment of other border sites in the implementation of the EVD response preparedness plan. IMS EVD is more confident that the latter will also help with preparing for other viral hemorrhagic diseases.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
MTaPS will support the field mission of IMS staff from the central level to evaluate the Ebola treatment and transit centers and border posts in the regions of Kolda, Ziguinchor, and Saint Louis	July–August 2022
MTaPS will support the orientation of targeted health district teams on how to use the finalized EVD SOPs	September 2022

Table 29. Quarter 3, FY22, Activity Progress, Senegal – EBOLA RESPONSE

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1: Support coordination mechanisms, working groups, stakeholders **Activity Description**: Provide technical support to review and update the national public health emergency preparedness and response plan and to strengthen relevant coordination structures by developing TOR	5.3	2.1, 2.2, 2.3, 2.5	N/A	MTaPS continued providing technical support to the IMS Ebola through regular coordination meetings
Activity 2: Develop/adopt/update guidance and SOPs **Activity Description:** Use WHO's updated SOPs (on IPC, mass gatherings, etc.) and guidance on Ebola event management at points of entry to technically contribute to updating the SOPs/guidelines that Senegal has developed for preparedness and response to the EVD outbreak in 2014	5.3	2.1, 2.2, 2.3, 2.5	N/A	MTaPS will continue supporting the evaluation field mission of EBOLA treatment and transit centers and border posts in the regions of Kolda, Ziguinchor, and Saint Louis
Activity 3: Assess and monitor compliance with the SOPs/guidelines **Activity Description**: Work with IPs to support the dissemination of the developed/updated guidelines/SOPs/checklist/job aid to the district health management teams managing travel and ports of entry	5.3	2.1, 2.2, 2.3, 2.5	N/A	MTaPS is working with IMS to organize the orientation of targeted health district teams on how to use the finalized SOPs on EVD

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 by building capacity of in-country stakeholders through a system strengthening approach in three result areas: effective MSC on AMR, IPC, and optimizing the use of antimicrobial medicines.

The PY4 program implementation plan for GHSA is to build on the work done in PYs 1, 2, and 3. MTaPS continues to focus on strengthening governance of MOH and HFs in collaboration with other USAID programs and partners working to implement a sustainable AMR program in Tanzania. MTaPS is advocating for the use of data for CQI of both AMS and IPC interventions and supporting development and implementation of surveillance methods for SSIs, whose treatment involves antibiotics and are therefore a key concern in AMR. MTaPS is building the capacity of HCWs to implement the IPC-related reporting system (as part of DHIS 2) to provide MOHCDGEC with data for decision making about IPC and for implementation of CQI methodologies. MTaPS supports assessment of AMS policies using a multisectoral approach and active implementation of AMS practices in health facilities.

CUMULATIVE PERFORMANCE TO DATE

From PY1 to PY4, MTaPS supported 37 WHO IHR benchmark actions: 8 contributing to MSC/AMR, 20 to IPC, and 9 to AMS. MTaPS helped MOH to 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 level 4, and 40% (2/5) of level 5 WHO benchmark actions, resulting in an overall achievement score of 47% (8/17). MTaPS supported coordination of AMR activities under the AMR MCC, working under the OH approach such that MCC had meetings and discussions to oversee and give guidance on implementing the NAP on AMR (2017–2022) across human, plant, animal, and fisheries sectors. MTaPS supported the setup and operation of IPC and AMS TWGs that helped to improve implementation of IPC and AMS activities in Tanzania and fed into the MCC. MTaPS supported the development and operationalization of the "Multisectoral AMR Communication Strategy: Moving from Awareness to Action 2020–2025" that helped to improve OH communications, practices, and implementation among MOHCDGEC; MALF; the President's Office Regional Administration and Local Government; and the four TWGs that feed into MCC (AMR awareness, AMR surveillance, IPC, and AMS). During Q2, at the 19th MCC meeting of March 11-12, 2022, participants drafted the roadmap for the 2017-2022 NAP-AMR final evaluation and discussed developing the next NAP.

In IPC across PY1 to PY4, 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 of 95% (20/21). This achievement contributed to improving the country beyond the 2016 JEE score of 3. MTaPS supported the revision of the national IPC guidelines for health care services in Tanzania (2018 edition) and its distribution across mainland Tanzania. MTaPS also conducted IPC

training cumulatively among 519 HCPs (57% female, 43% male). To improve IPC implementation and sustainability, MTaPS Tanzania established and strengthened IPC committees in ten supported hospitals and conducted clinical mentorship and CQI that brought about improved WASH, handwashing practices, and reduced SSI and nosocomial infections. An online IPC e-learning course was developed that equipped the Center for Distance Education in Morogoro to offer online IPC training to HCPs. MTaPS supported the MOHCDGEC by training RHMTs on IPC M&E tools, as well as training on reporting IPC indicators into DHIS 2.

MTaPS' implementation of AMS activities across PYs 1 to 4 has so far contributed to improving Tanzania's baseline JEE score of 1 towards level 2 JEE capacity by supporting 75% (3/4) of capacity level 2, 50% (3/6) of level 3, 14% (1/7) of level 4, and 28% (2/7) of capacity level 5 WHO benchmark actions, resulting in an overall score of 38% (9/24). MTaPS supported MOH and MALF in developing the AMS policy guidelines as per the OH approach. MTaPS supported MOH in developing and disseminating MTC guidelines, STGs, and the NEML consisting of the AWaRe categories of antibiotics. MTaPS conducted training on AMS, specifically ethical prescribing and dispensing of antimicrobials, for 110 (43 female, 67 male) HCPs from 10 MTaPS-supported facilities. MTaPS, in collaboration with MOHCDGEC, supported HCWs to implement AMS interventions including reviving MTCs that will foster AMS implementation at the hospitals. In Q2, MTaPS Tanzania supported development of a checklist with indicators that will be used to monitor progress with implementation of AMS interventions in the NAP monitoring framework at the ministry level and at HFs.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Participants at the 20th MCC meeting held on June 24 discussed the roadmap budget for the end evaluation of NAP 2017-2022 and development of a new NAP 2023-2028. Various partners pledged support at the meeting. The AMS TWG and IPC TWG chairpersons presented their TWG activities. Members appreciated MTaPS for conducting both IPC and AMS mentorship at supported sites using the Extension for Community Healthcare Outcomes (ECHO) platform. They also discussed the possibility of doing the same for the animal health sector. The 4th AMS TWG meeting held on June 20 reviewed various AMS activities being implemented by partners. 28% (8) of 28 participants in the AMS TWG were female compared to the 20% target, reflecting improved female participation in the MSC for AMR governance bodies.

RESULT AREA 2: IPC

MTaPS supported the development of IPC M&E training materials that will be used to train HCPs at the HFs to accurately document IPC data into IPC M&E tools and report to DHIS 2, which is the national health management information system (HMIS). The data generated will contribute to improved planning and decision making on IPC practices in Tanzania. MTaPS supported mentorship visits to 10 supported hospitals to mentor HCWs on how to use the SSI surveillance guidelines and reporting SSIs to the HMIS. The use of ECHO for IPC and AMS mentorship was launched on April 8, 2022. One IPC session per month for HCPs to share experiences and receive mentorship was completed for the quarter.

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

MTaPS conducted a first AMS assessment using the WHO AMS assessment tool and AMS supportive supervision in the 10 MTaPS-supported facilities. The findings showed that the facilities were at various stages of hospital formulary development. The supportive supervision teams provided technical support on AMS implementation including strengthening of the MTC. MTaPS also worked with MOH to develop a draft national hospital formulary template that will be used by hospitals to expedite development of their own hospital formulary. The use of the ECHO platform continues with one AMS session undertaken each month for HCPs to share experiences and receive mentorship.

BEST PRACTICES/LESSONS LEARNED

- All AMS activities are now being presented to the MCC for approval and advice, indicating the strengthening of the multisectoral coordinating mechanism.
- The presence of protocol for surveillance of HCAIs has made implementation of SSI surveillance more easily accepted at the HFs. In addition, integration of SSI indicators into the HMIS has helped it become a sustainable activity.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Review plans and progress through regular meetings of the AMR governance committee - TWG AMS and IPC meetings	August 2022
Activity 3.5.1: Continue to support active implementation of AMS practices in 10 supported HFs	July-September 2022
Activity 2.5.1: Support active surveillance of hospital-acquired infections (HAIs) (SSI type)	July-September 2022

Table 30. Quarter 3, FY22, Activity Progress, Tanzania – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Review plans and progress through regular meetings of the AMR governance committee **Activity Description:** Conduct regular MSC meetings to oversee implementation of NAP AMR	5.4	1.1		The 20th MCC meeting held on June 24 discussed the roadmap budget for end evaluation of NAP 2017-2022 and development of new NAP 2023-2028. The AMS and IPC TWGs presented on implementation of AMS and IPC activities in the NAP and received guidance from MCC members. The 4th AMS TWG meeting held on June 20 (28% female attendance of 28 participants) promoted involvement, ownership, and capacity building of hospital staff in implementation of assessments and surveys.
Activity 2.3.1: Enhance data generation and use through supporting active implementation of the approved national IPC M&E protocol **Activity Description:** Support MOH on development of IPC M&E training materials; train and mentor HCWs on IPC M&E; support reporting and distribution of IPC M&E tools	5.4	2.3		MTaPS has developed IPC M&E training materials for training HCPs on how to implement the IPC M&E protocol at facilities. MTaPS mentored HCWs on how to document IPC data into M&E tools and report it into the HMIS (i.e., DHIS 2)
Activity 2.5.1: Support active surveillance of HAIs, specifically SSIs **Activity Description:** Support MOH on development of SSI guidelines and job aids, mentor HCWs, and monitor the SSIs	5.4	2.5		MTaPS developed HAI surveillance protocols as well as the HAI SOPs to help HCWs conduct SSI surveillance using proven methods. Mentorship has already been conducted in 10 supported hospitals on how to use the HAI guidelines, especially the SSI section which is a priority.
Activity 3.1.1: Assess stewardship policies and activities, including regulatory framework and SCM of antimicrobials, using a multisectoral approach **Activity Description:** Review of current AMS policies, legislation, regulations, and guidelines to draft a rapid situational analysis report; engage stakeholders and MCC in dissemination of the findings and use the recommendations to feed into the development of the national AMS action plan	5.4	3.1		Two consultants for animal and human health respectively have been engaged and have started assessing policies and the regulatory framework. The report emanating from this activity, including stakeholder recommendations, will be used as input into the existing NAP evaluation and revision of NAP as the assessment will highlight gaps in AMR policies, regulation, and guidelines in both human and animal sectors.
Activity 3.5.1: Continue to support active implementation of AMS practices in 10 supported HFs **Activity Description:** Development of national hospital formulary template, AMS supportive supervision in 10 supported hospitals	5.4	3.5		Draft national hospital formulary template developed using experts. First AMS assessment using WHO AMS tool and AMS supportive supervision in 10 hospitals done. ECHO platform in use for sharing experiences and mentorship of HCWs.

R. UGANDA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

Uganda's JEE assessment scored 3 (developed capacity) for both IPC and AMS in 2017. MTaPS' GHSA goal in Uganda is to slow the emergence and propagation of AMR. This will be accomplished by building the capacity of in-country stakeholders and facilities through a system strengthening approach to implement Uganda's NAP on AMR and make progress toward a higher JEE score which translates to improvement in the WHO Benchmarks for IHR capacities. MTaPS Uganda provides direct technical assistance to Government of Uganda MDAs to support three result areas in the GHSA AMR action package—optimizing the use of antimicrobials through AMS, strengthening IPC practices, and strengthening government-led MSC for the national AMR program through the national AMR sub-committee (NAMRsC) of the OHP.

MTaPS focuses on strengthening leadership for AMR at the national level (through the NAMRsC and its IPC and AMS TWCs), the HF level (through the facility AMS and IPC committees), and the district level (district IPC teams). CQI plans—informed by routinely collected data—are applied to tailor capacity building and implement locally prioritized activities at HFs to ensure sustainable AMR programs. MTaPS strives to create a learning ecosystem in which HFs share knowledge via targeted interventions. To ensure the sustainability of capacity building interventions, MTaPS supports medical schools and professional bodies to integrate AMR into their curriculum and CME where applicable. MTaPS focuses on institutionalizing activities at the ministry and HF levels; supporting synergies with other USAID-funded programs working in GHSA by providing above-site catalytic technical assistance; and building the internal capacity of government MDAs to implement sustainable AMR programs in Uganda, intentionally engaging local universities and local partners to foster cooperation and ownership of activities and interventions. AMR interventions in the private not-for-profit sector are supported through engagement with the Uganda Catholic Medical Bureau and Uganda Protestant Medical Bureau.

CUMULATIVE PERFORMANCE TO DATE

MTaPS has supported Uganda to improve the JEE-2 score for MSC/AMR by supporting 75% (3/4) of capacity level 2 actions, 50% (2/4) of capacity level 3 actions, and 50% (2/4) of capacity level 4 actions. MTaPS worked with the Uganda OHP-TWC to establish the NAMRsC, identify its lead, and develop TORs. Additionally, MTaPS supported the NAMRsC to identify programs and activities relating to key AMR objectives for implementation. These activities enabled the country to consolidate capacity level 2 for MSC/AMR. MTaPS supported the NAMRsC to set up the central level IPC and AMS optimal access and use (ASO) TWCs. For effective coordination and adequate functionality of the NAMRsC and the TWCs, MTaPS provided logistical support for regular meetings, developed an online information exchange platform, and highlighted the work done by two women champions in AMR in Uganda to promote gender equity in AMR leadership. Two editions of a biannual AMS newsletter that highlight key AMS activities implemented by the ASO-TWC and stakeholders have been developed and the first

edition disseminated. The publication enables multisectoral collaboration and bridges the gap between technical areas and national and subnational levels.

MTaPS has helped Uganda to improve the JEE-2 score for IPC over PY1 to PY3 by supporting 80% (4/5) of capacity level 2, 83% (5/6) of level 3, and 40% (2/5) of level 4 WHO IHR benchmark actions. MTaPS, working with MOH, is building systematic capacity for IPC at supported HFs and at the national level. In 2019, MTaPS supported MOH to conduct the first ever national IPC survey, which informed activity implementation at both national and HF levels. MTaPS has subsequently applied best practices to implement CQI plans for IPC improvement at supported COEs. As part of capacity building of the COEs, MTaPS has cumulatively conducted 84 mentorship visits in 13 HFs, reaching 2,079 HCWs (55% female, 45% male). This activity completes various actions under WHO benchmark 3.4, including actions in capacity levels 2, 3, and 4. Progressively, MTaPS supported HFs to improve their performance on key IPC indicators. To expand the scope of IPC implementation at the HF level, MTaPS has supported HFs to conduct wider IPC/HH surveys encompassing HCAIs and compliance with the "5 Moments of HH." As a mechanism for sustainability of IPC implementation, MTaPS provided training and mentorship to other USAID-funded projects to build their capacity for IPC and WASH activity implementation. In PY4, Q2, MTaPS conducted mentorship visits, IPC/HH trainings, and CME on IPC to 198 HCWs (56% female, 44% male).

In AMS, from PY1 to PY3, MTaPS helped Uganda improve its JEE-2 score by supporting 50% (2/4) of capacity level 2, 67% (4/6) of level 3, 43% (3/7) of level 4, and 14% (1/7) of level 5 WHO IHR benchmark actions, thus contributing to sustaining capacity level 3 and progressing towards achieving levels 4 and 5. At COEs, MTaPS—working with MOH—used standard guidelines to develop CQI plans for HFs and support their implementation. MTaPS supported development of guidelines and SOPs for AMS for use at hospitals, built both hospital and national capacity for AMU surveillance by training health workers in data collection, and supporting dissemination of the findings at the national level. A framework to guide development of a system for measurement of AMC at the national level was developed during PY2. These activities contributed to benchmark 3.4, capacity level 2 and 3 actions. To inform policy changes, MTaPS conducted an assessment of AMS policies and guidelines on supply chain and antibiotic use in Uganda—a key JEE-2 activity for capacity level 2—that will guide development of a national AMS plan. To bridge the gap between human health and animal health that was observed at baseline, MTaPS supported the animal health sector working with the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) to develop IEC materials, AMR awareness messages, an EVML, and guidelines on antibiotic use. In Q2, the guidelines and EVML were disseminated across six regions. These activities support actions under capacity level 2 in the JEE-2.

QUARTER 3 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

MTaPS collaborated with Makerere University to support the ASO-TWC to publish the second edition of the biannual AMS newsletter which highlights key AMS activities implemented at the national and sub-national levels with multisectoral collaboration and bridging technical areas. For sustainability, MTaPS—on behalf of MOH—supported the NAMRsC to identify a server to host the information exchange platform earlier developed by MTaPS. The identified host, Makerere University's Infectious Diseases Institute, will update and maintain the platform for the foreseeable future. The platform helps improve

data sharing for decision making and contributes to progress toward JEE-2 capacity level 3 and level 4 for AMR. This activity completes NAP activity 3.11: create and strengthen a communication platform for IPC-related committees at all levels from local-level facilities to the MOH, including AMS committee, IPC committee, laboratory committee, and clinical committee.

RESULT AREA 2: IPC

MTaPS supported MAAIF to develop the first draft of a situational analysis report and the national IPC plan for the agricultural sector. These documents are undergoing review by stakeholders prior to a stakeholder consultation workshop scheduled for July 7, 2022. This activity will address WHO benchmark 3.3 capacity level 2 action: develop a national IPC policy and plan for animal health. MTaPS continued to build the capacity of HFs to monitor IPC program implementation. During Q3, MTaPS supported progressive assessments to track IPC implementation as per developed CQI plans. HAI and HH compliance were assessed in supported HFs and data analysis is ongoing. With MTaPS' support, one of the HFs—Kiwoko Hospital—demonstrated improved scores on IPC and AMS assessments. A site visit by USAID/Uganda to the hospital commended MTaPS' support.

The GHS team (3rd and 4th from left) from USAID/Uganda with the Kiwoko Hospital administration and MTaPS team during the courtesy visit, April 2022. Photo by Sherie Tumwebaze, MTaPS Uganda

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

During Q3, MTaPS continued to support the NDA in developing a tool for routine collection of antimicrobial data to enable measuring of AMC at the national level. MTaPS hired temporary data entry staff to assist NDA in entering missing retrospective (2019–2022) data from paper-based forms into the NDA-MIS. In collaboration with NDA and MOH, MTaPS is drafting a manual for subsequent national-level measurement and monitoring of antimicrobials. This manual will be utilized by NDA and can be adopted for use by other countries yet to develop a national-level system for monitoring AMC.

To ensure early interest in AMR in pre-service HCWs, MTaPS supported students in six graduate health training institutions to set up AMR interest groups that will coordinate AMR activities among students. To strengthen in-service AMR training, MTaPS continued to support AMS and IPC training activities and CMEs in HFs to 182 HCWs (59% female, 41% male). Through capacity building of USAID IPC/WASH implementing partners, MTaPS has extended IPC/WASH training to 677 HCWs from HFs and district health teams. The training includes IPC program assessment and use of results to develop plans of action for IPC/WASH improvement. The goal of the activity is to ensure sustainability of USAID MTaPS investments in Uganda and support progress towards capacity 4 for JEE-2 benchmark action 3.3.

BEST PRACTICES/LESSONS LEARNED

- Triggering early interest in AMR is key in building a future health workforce that incorporates AMR awareness in daily practice.
- Involvement of different health workforce cadres, including support staff, can consolidate AMR implementation efforts.
- The interested health workforce can be supported through financing of key activities that enhance AMR containment efforts including capacity building for decision making, governance, and clinical and agricultural practice.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Dissemination of the published newsletter and completing draft 1 of the next edition	September 30, 2022
Approval of the national IPC plan for the agricultural sector	September 15, 2022
Submitting a technical highlight for activity 2.5.1	August 31, 2022
Quarterly meeting of the OH ASO TWG	August 31, 2022
National-level dissemination of the findings from an assessment of stewardship policies and activities, including regulatory framework and SCM of antimicrobials, using a multisectoral approach	August 31, 2022
Draft report on assessment of existing systems for monitoring antibiotic use in Uganda	September 30, 2022
Stakeholder workshops for development of the education policy brief to the NCDC and MOES highlighting the need to incorporate AMR training in the national curriculum	July 31, 2022
Curriculum competences for undergraduate training about AMR and education policy brief that synthesizes existing knowledge and highlights the need to incorporate AMR training into education programs	September 30, 2022
Workshop for establishing the national AMR student charter	July 31, 2022
Completion of AMS data collection activities	August 30, 2022
Technical brief on AMS implementation in COEs	September 30, 2022
Report on above-site supervision to the regional IPs to cascade IPC/WASH implementation	September 30, 2022
Manual for monitoring and measuring AMU at national level	September 30, 2022

Table 31. Quarter 3, FY22, Activity Progress, Uganda – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.2.1: Strengthen institutional and HR capacity for AMR-related MSC **Activity description**: Publish bi-annual AMS newsletter and disseminate it to various stakeholders	5.4	1.2		The second edition of the newsletter was published, and its dissemination is ongoing. Currently collecting articles for the next edition.
Activity 2.1.1: National IPC policy, guidelines, standards, and M&E developed and regularly updated, including the animal health sector **Activity description**: Hold inception meeting for the development of the national IPC plan for the agricultural sector. Later, hold stakeholder consultation workshop for its review	5.4	2.1		Inception meeting held between MAAIF, MTaPS, and relevant stakeholders to discuss the roadmap to draft the plan. Data collection has been done. Drafts of the situational analysis report and the IPC plan have been shared by the consultants. A stakeholder consultation meeting to review these documents has been scheduled for July 7.
Activity 2.5.1: Improve the quality of health care services through strengthening IPC at COEs **Activity description**: Provide support to the HH programs at the seven COEs; conduct an annual assessment of IPC practices at HFs using WHO tools; provide site catalytic technical assistance to USAID IPs to strengthen IPC in five health regions	5.4	2.5		Data collection using the WHO standard tools was conducted in all seven COEs, and analysis is currently ongoing. A team from USAID/Uganda, led by Dr. Sarah Page, the GHS lead, visited one of the COEs.
Activity 3.2.1: Strengthen the COEs for AMS **Activity description:** Support the seven COEs in implementing AMS practices in their respective regions; monitor and evaluate AMS programs at HFs; support the NDA in developing a system for monitoring use of antibiotics at the national level through the NDA-MIS	5.4	3.2		Working with NDA to develop a tool and enter data from paper-based forms into the online NDA-MIS. The data will be analyzed to provide a report on AMC at the national level. The experiences are being used to develop a manual for monitoring and measuring antibiotic use at NDA. The final document on assessment of stewardship policies and activities is being printed prior to dissemination in August.

5. PROGRESS BY REGIONAL BUREAUS

A. ASIA REGIONAL BUREAU

OVERVIEW

MTaPS will strengthen Asia Bureau region countries' pharmaceutical systems by improving their ability to institutionalize transparent and evidence-based decision making, building their capacity to use robust information to define and cost pharmaceutical coverage, and strengthening medicine regulatory capacity and pharmaceutical-sector governance.

CUMULATIVE PERFORMANCE TO DATE

OBJECTIVE 1: STRENGTHEN CAPACITY TO CONDUCT AND USE HTAS TO SUPPORT INSTITUTIONALIZING TRANSPARENT AND EVIDENCE-BASED DECISION MAKING IN ASIAN REGIONAL COUNTRIES

MTaPS developed the roadmap for institutionalizing HTA in LMICs in consultation with global and regional HTA experts. Because of the COVID-19 pandemic, a previously planned dissemination workshop with Asia region experts (e.g., HTA practitioners, policy makers, academia, WHO regional experts, other implementing partners, etc.) was switched to a virtual format and held in October 2020. Given the variability in HTA advancement across countries in the region, this virtual exercise provided a contextualization of the roadmap, including updates on progress, recent experiences, and practical considerations from various settings. Based on prior work by Chootipongchaivat et al (2015), MTaPS created the BSC to assess the status of HTA in nine Asian countries. The milestones depicted in this paper were used to create the BSC to assess the progress of HTA in China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, and Vietnam. An additional literature review of the previous systematic review conducted for the HTA roadmap document was done to provide recent information for the scorecard. Key informant interviews were conducted with regional HTA experts to fill information gaps from the desk research. This research provided insight into HTA implementation across various settings in the region, which was incorporated into a summary addendum to the HTA roadmap. Feedback received from MTaPS internal reviewers and USAID was incorporated to distill the findings into a journal article. The article was accepted by the *International Journal of Technology Assessment in Healthcare*. The BSC analysis was also shared as a poster presentation at the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 2021 (now called the Professional Society for Health Economics and Outcomes Research) in May 2021. The BSC analysis was also shared at HTAsiaLink in October 2021. An additional activity was a supplementary regional dissemination workshop for application of the roadmap in China, India, Indonesia, Malaysia, Thailand, Philippines, South Korea, Taiwan, and Vietnam. It was conducted as a virtual pre-workshop session for HTAsiaLink 2021 on October 11, 2021. The session engaged over 200 participants. HTAsiaLink 2021 provided an important opportunity for feedback from regional HTA stakeholders to inform the design of the other activities planned for later in the PY4.

OBJECTIVE 2: CAPACITY TO DEFINE AND COST EVIDENCE-BASED PHARMACEUTICAL COVERAGE AND PROMOTE SHARING OF PHARMACEUTICAL PRICES TO IMPROVE VALUE IN PURCHASING IN THE ASIA REGIONAL COUNTRIES STRENGTHENED

Sub-objective 2.1 Strengthen capacity for defining and costing evidence-based pharmaceutical benefit programs

Activity 2.1.1: Build capacities related to the use of OHT to cost pharmaceutical benefit packages

In PY3, MTaPS developed and delivered two trainings for countries in the Asia region (Kyrgyzstan, Bangladesh, Nepal, and the Philippines) on how to use the OHT to cost pharmaceutical benefit packages. The trainings were built upon the guidance MTaPS developed in PY2, which reviewed tools to cost pharmaceutical benefit packages and explained how to use OHT for such an exercise. Following these trainings, MTaPS completed the training report and worked to confirm Bangladesh's interest in receiving further support for applying the OHT. In Q3, MTaPS defined a SOW to support Bangladesh's application of the OHT and planned an additional in-person training to take place in early Q4 (July).

MTaPS also published a blog highlighting the two reports from activity 2.1.1. The reports provided an overview of how countries in Asia define pharmaceutical benefit packages and a guide for how to define pharmaceutical benefit packages more effectively.

OBJECTIVE 3: REGIONAL/SUB-REGIONAL MEDICINE REGULATORY SYSTEMS IN ASIA STRENGTHENED

MTaPS conducted a mapping exercise to identify key entities (i.e., initiatives, networks, and stakeholders) at regional and sub-regional levels that were supporting or working in pharmaceutical regulatory system strengthening in Asia and to identify potential areas for collaboration. Through this exercise, MTaPS identified 18 entities that aim to strengthen different pharmaceutical regulatory functions/areas, such as registration and market authorization, PV, post-marketing control, and regulatory inspection. MTaPS followed up with three key networks (ASEAN, SEARN, and WHO's Western Pacific Regional Office [WPRO]) for potential collaboration to strengthen regulatory systems in Asia.

MTaPS supported the online capacity-building course on good manufacturing practices for manufacturers of active pharmaceutical ingredients and formulations to ensure access to quality-assured medical products in India. The course was hosted by the JSS Academy of Higher Education & Research in Mysuru, India, in collaboration with MTaPS, PQM+, WHO, and national stakeholders. The course was attended by 103 participants from 33 pharmaceutical companies. MTaPS planned a capacity building on evaluating vaccine dossiers for NMRA officials from Bangladesh, Nepal, the Philippines, and Vietnam. However, because of conflicting schedules of NMRA officials in the Philippines and Vietnam, only officials from Bangladesh and Nepal, which are part of SEARN, attended the training. MTaPS further facilitated NMRA officials in Bangladesh to participate in a course on good reliance practices organized by its core partner, the Center of Regulatory Excellence.

MTaPS undertook a competency mapping exercise on the regulatory workforce in Nepal and Bangladesh to determine the gaps prevailing in the national regulatory authorities. The exercise focused on the regulatory role of specific functions to facilitate the establishment of a consistent framework against which training needs can be identified and planning done to meet identified requirements. A

similar exercise is planned for the Philippines and Vietnam where MTaPS has already held introductory and planning meetings with the respective national regulatory authorities.

MTaPS has also continually engaged other partners, particularly PQM+, to plan for the implementation of joint activities on RSS.

OBJECTIVE 4: PHARMACEUTICAL SECTOR GOVERNANCE IN ASIAN COUNTRIES STRENGTHENED

Following MTaPS' review of COI policies across several southeast Asian countries in 2021, a WHO- and peer-reviewed publication was completed documenting current experiences. This information was used to develop a manual which has undergone extensive review by WHO. The manual is currently going through the final editorial stage. MTaPS is developing an e-learning module to support the use of the manual.

QUARTER 3 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: STRENGTHEN CAPACITY TO CONDUCT AND USE HTAS TO SUPPORT INSTITUTIONALIZING TRANSPARENT AND EVIDENCE-BASED DECISION MAKING IN ASIAN REGIONAL COUNTRIES

In Q3, MTaPS developed a concept note to execute a deep-dive workshop to improve HTA in Asia. The topic for the workshop will be the use of RWE to improve HTA. The topic selection is informed by the findings from the HTAsiaLink pre-conference meeting that USAID MTaPS hosted in Q1. MTaPS collaborated with the World Bank, CGD and iDSI to host a joint webinar on June 14, 2022, on "Advancing HTA with Real World Evidence (RWE)" for Indonesia. RWE was identified by countries at the 2021 HTAsiaLink pre-conference workshop as one of the key areas that requires improvement. Similar activities are now planned for the Philippines.

Developing the HTAsiaLink digest continues the work on the HTAsiaLink pre-conference. The digest was presented to and endorsed by the HTAsiaLink Board on February 18, 2022. MTaPS is currently in the process of finalizing the digest and drafting a peer-review commentary article on the role of HTAsiaLink to further interagency collaboration in the Asia region.

Further, MTaPS continued to conduct due diligence on the needs for the HTA hub in Asia. MTaPS consultants were contracted to perform the first scoping and desk review. The results will be available in Q4. Stakeholder interviews will be planned in Q4 as well.

OBJECTIVE 2: CAPACITY TO DEFINE AND COST EVIDENCE-BASED PHARMACEUTICAL COVERAGE AND PROMOTE SHARING OF PHARMACEUTICAL PRICES TO IMPROVE VALUE IN PURCHASING IN THE ASIA REGIONAL COUNTRIES STRENGTHENED

In Q3, MTaPS furthered plans for applying the OHT in Asia by confirming Bangladesh's interest in further technical support OHT. MTaPS then organized an in-person training in Bangladesh to equip policymakers with the skills to utilize the tool in their country context, to be conducted in Q4.

OBJECTIVE 3: REGIONAL/SUB-REGIONAL MEDICINE REGULATORY SYSTEMS IN ASIA STRENGTHENED

MTaPS continued to engage the NMRAs in Nepal and Bangladesh in finalizing the competency mapping exercise. The report for Nepal is under editorial review; the one for Bangladesh is being finalized. A

similar competency mapping exercise is planned for Vietnam and Philippines with whom MTaPS has already held introductory and planning meetings. MTaPS engaged the DAV for an introductory meeting on June 10, 2022, to discuss the activities planned under ASEAN to be undertaken in Vietnam. A field visit is planned to clarify the support and ensure uptake and implementation of activities. MTaPS, through the country team in the Philippines, held meetings with the country's FDA to agree on implementation modalities for the competency mapping. The data collection is planned for July 2022.

MTaPS held a meeting between its RSS and capacity-building teams to discuss the roles, mode, and scope of implementation for reviewing regional training plans for NMRA staff to build their technical capacity in registration and regulatory inspections. A training plan from the outputs of the competency mapping has been developed for Nepal.

MTaPS has continually engaged the SEARN Secretariat and member countries to support development of mechanisms for cooperation, such as work sharing and joint review sessions; convergence of standards; and information exchange among established networks. As such, MTaPS has held planning meetings with Nepal and Bangladesh for a workshop to facilitate policy convergence in regional technical requirements for medicine registration. The workshop is planned for July 2022. Draft TORs have been developed and are to be confirmed by the countries.

MTAPS developed implementation plans for other activities, including developing a risk communication plan; supporting ASEAN PPWG's joint assessment procedures by facilitating joint review sessions for assessment of medical products; creating models for adoption of global standards to support the development of regulatory IMS for electronic transmission of information in Asia; and providing technical assistance to Asian countries to institutionalize regulatory processes and best practices in registration of medical products. The plans have been shared with USAID for onward submission to ASEAN PPWG for its endorsement before implementation.

Jointly with PQM+, MTaPS is organizing a conference to present the landscape analysis for RSS in Asia. MTaPS will present a session at the conference on advocacy for adoption of identified minimum common standards for regulatory IMS. MTaPS has engaged PQM+ in planning meetings. The conference is scheduled for August 2022.

OBJECTIVE 4: PHARMACEUTICAL SECTOR GOVERNANCE IN ASIAN COUNTRIES STRENGTHENED

The COI manual is currently with WHO for final approval while development of the eLearning materials that support the manual continues. During the third quarter, the draft manual was also used, with permission of WHO, as a resource material for a JLN learning series on COI supported by USAID Cross Bureau funding. Planning has also begun for a culminating webinar on COI, to be hosted by WHO in September 2022, where all developed COI materials will be presented.

BEST PRACTICES/LESSONS LEARNED

OBJECTIVE 1:

- It is critical to translate documents and use local context while engaging stakeholders in non-English speaking regions to enhance communication and avoid misrepresentation.

- There is great interest in HTA in Asia. Some countries are more advanced than others in adopting HTA processes, but there is appetite to continue advancing HTA in the region. For this reason, MTaPS will collaborate with regional partners and execute several technical events on RWE and related topics in Indonesia and the Philippines to improve HTA and explore the feasibility of a regional HTA hub.
- The HTA roadmap document is perceived as a useful tool to help guide countries that want to adopt HTA. Presenting the work that MTaPS conducted in Asia at HTAsiaLink in 2021 provided an important opportunity to inform the design of other activities, such as the HTAsiaLink digest and the peer-review commentary article on the role of HTAsiaLink.

OBJECTIVE 2:

- It is best to be realistic in promises to country stakeholders to manage expectations and deliver satisfactory results.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.2 (year 3): HTA deep-dive workshop executed	September 2022
Activity HTAsiaLink (year 3): Conference digest finalized; draft paper completed	September 2022
Activity 1.1 (year 4): Findings from initial scoping review on the demand and interest for a HTA hub in Asia	December 2022
Activity 2.1.1: Build capacities related to the use of OHT to cost pharmaceutical benefit packages: ■ Conduct a training in Bangladesh and formulate an action plan for applying the OHT with specific opportunities for MTaPS to support	September 2022
Activity 3.1.1a (year 3): Perform a regional competency mapping for pharmaceutical regulation; finalize data collection in the remaining two countries (Vietnam and Philippines)	July-September 2022
Activity 3.2.2 (year 3): Facilitate policy convergence of regional technical requirements for registration of medical products among Asian countries	July-September 2022
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	July-September 2022
Activity 3.2.2 (year 4): Develop and continuously review regional training plans for NMRA staff to build their technical capacity on key aspects of registration and regulatory inspections	July-September 2022
Activity 4.1.1 (year 3): COI manual will be published, COI eLearning course developed and associated webinar delivered	September 2022

Table 32. Quarter 3, FY22, Activity Progress, Asia Regional Bureau

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Apply and disseminate the HTA roadmap guidance document in the region	1.1			MTaPS developed the roadmap for institutionalizing HTA in LMICs in consultation with global and regional HTA experts. An article has been accepted in the International Journal of Technology Assessment in Healthcare and the BSC analysis was also shared as a poster presentation for ISPOR 2021 in May 2021 and HTAsiaLink in September 2021. A supplementary regional dissemination workshop for application of the roadmap in selected countries was conducted as a pre-workshop session for HTAsiaLink 2021 on October 11 and engaged over 300 participants. MTaPS, CGD, iDSI, and World Bank co-hosted the RWE capacity building for Indonesia. A similar event is planned for the Philippines.
Activity 2.1.1: Build capacities on the use of OHT to cost pharmaceutical benefit packages: Conduct the training in Bangladesh and formulate an action plan for applying the OHT with specific opportunities for MTaPS to support	4			After consistently following up and establishing a point of contact at the HEU in Bangladesh, MTaPS confirmed Bangladesh's interest in further support with application of the OHT and agreed upon next steps. As a result of these discussions, MTaPS scheduled an in-person training on the OHT to be held in Q4.
Activity 3.1.1 (year 3): Enhance pharmaceutical regulatory expertise among the region's workforce in product registration and PV **Activity 3.1.1a (year 3):** Perform a regional competency mapping for pharmaceutical regulation; finalize data collection in the remaining two countries **Activity 3.2.2 (year 3):** Facilitate policy convergence of regional technical requirements for registration of medical products among Asian countries	2			MTaPS worked with government counterparts and NMRAs in Bangladesh and Nepal to gather information and data on existing competencies for regulation of medicines. Reports being finalized. MTaPS is working with government counterparts and NMRAs in Vietnam and Philippines to collect data and information on existing competencies for regulation of medicines. MTaPS has held planning meetings with Nepal and Bangladesh for a workshop to facilitate policy convergence in regional technical requirements for medicine registration. The workshop is planned for July 2022. Draft TORs have been developed.
Activity 4.1.1 (year 3): Support implementation and dissemination of the how-to manual on COI **Activity 4.1.1 (year 4):** Conduct a review/assessment on procurement policy, organizational capacity, and technical competency in one Asian country	1			The COI manual is with WHO for final approval while development of the eLearning materials that will support the manual continues. The local consultant has been recruited but the recruitment of an international consultant is still in the process because the consultant is only available in August 2022.

B. IGAD / EAC

OVERVIEW

The EAC and IGAD are RECs in the broader eastern Africa region. IGAD consists of eight states in the Horn of Africa: Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda, while EAC covers six partner states: Burundi, Kenya, Rwanda, South Sudan, United Republic of Tanzania, and Uganda. There are three overlapping countries between EAC and IGAD (i.e., Kenya, South Sudan, and Uganda). The USAID MTaPS program supported IGAD/EAC to strengthen the pharmaceutical system to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medicines and medicine-related pharmaceutical services. MTaPS' strategic approach for the IGAD/EAC portfolio applied MTaPS' PSS approach in the two RECs to achieve results in PV, patient safety, and good medicine regulatory practices including support for local manufacturers to adhere to GRPs, requirements, and standards. Support included the use of regional-led coordination, stakeholder engagement, collaborations and partnerships, and capacity building to effect systemic change and integration. MTaPS did not have a PY4 work plan for IGAD/EAC and the activities implemented during Q3 were carry-over PY3 activities.

CUMULATIVE PERFORMANCE TO DATE

Across the PYs, MTaPS supported the IGAD and EAC Secretariats to convene quarterly meetings of EWGs on PV to discuss activity implementation, monitor progress, and support development and adaptation of regional documents.

MTaPS assisted the IGAD Secretariat to operationalize the IGAD EWG-PV by supporting the review and validation of the TOR and the development of a harmonized IGAD and EWG-PV plan of activities. The experts adopted and developed a harmonized indicator-based PV assessment and monitoring tool and carried out a baseline assessment of the PV system in their member countries to inform regional activities. Approximately 17 (9 female, 8 male) regional experts drawn from the IGAD secretariat and member states were trained as TOTs on the utilization of the harmonized indicator-based PV assessment and monitoring tool to carry out a baseline assessment within the member states. The regional experts carried out in-country trainings of data collectors to build their capacity to understand and utilize the tool to assess the PV systems. A total of 97 (31 female, 66 male) in-country HCWs were trained in Djibouti, Ethiopia, Kenya, Somalia, and Uganda. The results and findings of the baseline assessment of the PV system in IGAD member states were discussed and deliberated upon during IGAD EWG-PV meetings. A regional report was developed from the findings and validated on October 7, 2021.

An assessment of the local manufacturers in EAC and IGAD was carried out in 2020 to assess their capabilities to adhere to GRPs. Various stakeholder forums have since been held to share the findings and build capacity of the manufacturers on adherence to GRPs and PV. In total, MTaPS has been able to reach approximately 760 pharmaceutical industry stakeholders through virtual webinars and stakeholder forums to build capacity of the industry on regulatory compliance.

Additionally, MTaPS—in collaboration with the IGAD Secretariat—identified IGAD/MTaPS cross-border area HF personnel who were trained as TOTs in PV (94 personnel [22 female, 72 male]). The cross-border trainings combined facility HCWs from different member states which enhanced the integration and harmonization agenda. The health management teams within the cross-border areas were also sensitized on PV and regional collaboration and integration. Subsequently, MTaPS supported the cross-border facilities through CQI and mentorship to implement PV activities as per work plans developed during the TOT. Furthermore, 107 (23 female, 84 male) facility and health management team HCWs were trained on PV and MTC as institutional anchors for PV activities. Through this support, MTaPS has ensured that 40 facilities located along cross-border areas of Uganda/Kenya (Amudat/West Pokot, Moroto/Turkana), Ethiopia/Kenya (Moyale), and Kenya/Somali (Mandera) carry out and implement patient safety activities, including reporting of adverse events.

MTaPS supported the NMRAs, specifically the PPB of Kenya, which is the regional center of regulatory excellence in PV/PMS to analyze data for decision making through capacity building of the PERAC. This was to ensure that the existing safety data is evaluated and regulatory actions including alerts or recalls are undertaken.

The program, in collaboration with the EAC Secretariat and EAC partner states, developed and validated harmonized SOPs for the implementation of the EAC harmonized PV compendium. A draft EAC harmonized PV curriculum and training packages were also developed.

MTaPS, in collaboration with the IGAD Secretariat, supported the IGAD EWG-PV to develop a draft harmonized IGAD PV training curriculum and a costed work plan for regional PV systems strengthening.

Additionally, the MTaPS program continually engaged local pharmaceutical industry stakeholders on sustaining regulatory compliance. MTaPS held a stakeholder forum on March 17, 2022, which was attended by 21 (7 female, 14 male) industry stakeholders within EAC and IGAD. The program also initiated the formation of a regulatory compliance group to sustain regulatory compliance.

QUARTER 3 ACHIEVEMENTS & RESULTS

MTaPS, in collaboration with the IGAD Secretariat, convened the EWG meetings on April 7 and 20, 2022 to review and finalize the draft harmonized PV curriculum.

MTaPS, in collaboration with the IGAD Secretariat, also convened a closeout meeting with the PPB as the regional lead country and COE in PV on May 11, 2022. The meeting was attended by USAID and other partners, including USP PQM+. Participants at the meeting reviewed activities supported and implemented through the USAID KEA regional support. Participants also discussed the impact of the activities within the member states.

MTaPS also held another closeout meeting with USAID on May 19, 2022, to highlight the progress and achievements of the IGAD portfolio. This meeting was attended by USAID, the IGAD Secretariat, PPB, and MTaPS.

BEST PRACTICES/LESSONS LEARNED

Regional harmonization is a quick way of enhancing regulatory maturity and capacity. However, it requires concerted effort and support from all stakeholders.

ACTIVITIES & EVENTS FOR NEXT QUARTER

No activities are planned for next quarter. IGAD/EAC activities came to an end in May 2022.

Table 33. Quarter 3, FY22, Activity Progress, IGAD/EAC

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
IGAD/EAC Activity 3.1.1: Strengthen and harmonize PV processes and tools in IGAD and EAC regions and support uptake by border sites and regional stakeholders **Activity Description:** Collaborate with the IGAD Secretariat and the IGAD member states to review existing in-country PV curriculums and blend them to develop harmonized IGAD PV curriculum for regional adoption and training in-service HCWs.	5.3			MTaPS, in collaboration with the IGAD Secretariat and IGAD EWG-PV, developed a draft harmonized IGAD PV curriculum which is undergoing editorial review.

6. PROGRESS IN ACHIEVING CONTRACT DELIVERABLES

Table 34. Quarter 3 Progress in Achieving Contract Deliverables

CONTRACTUAL DELIVERABLE	DUE DATE	SUBMISSION DATE	COMMENTS
Reporting of Foreign Taxes	4/16/22	4/12/22	
Quarterly Performance Report – PY4 Quarter 2	4/30/22	4/29/22	
Subcontract Reporting (eSRS)	4/30/22	4/27/22	

7. PROGRAM SPOTLIGHT

USAID
FROM THE AMERICAN PEOPLE

SUCCESS STORY

Photo credit: Yacouba Traoré/MTaPS

Ebola response materials donated to the CSRefs of Sagabari and Keniéba

"This training is very relevant as it allows us to understand the importance of infection prevention and control (IPC) in health care settings… When properly applied, IPC breaks the chain of transmission of infections such as Ebola."

– Dr Diakalya Dissa at the community health center from Balea/Sagabari

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

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

Ebola: Prevention and Response in Mali

In February 2021, Guinea announced a confirmed case of Ebola Virus Disease (EVD). The presence of this disease in West Africa brought reminders of the 2013–2014 epidemic in the region and forced neighboring countries to take strong and immediate measures. In Mali, this resulted in development of a national Ebola prevention and response plan designed to coordinate activities, train health staff, and provide equipment to mount an effective response.

To prepare the country for a potential Ebola outbreak, Mali's Directorate for Public Health and Hygiene (DGSHP) requested help in implementing the EVD prevention and response plan. The US Agency for International Development (USAID) responded by tasking Medicines, Technologies, and Pharmaceutical Services (MTaPS) to improve the infection prevention and control (IPC) capacity of Mali's health workforce.

SUPPORT FOR AN EFFECTIVE RESPONSE

In mid-2021, MTaPS supported the Ministry of Health and health directorates in the regions of Kayes, Koulikoro, and Sikasso to assess the EVD management capacity of health district referral centers (CSRefs). Using the World Health Organization's Ebola scorecard, the assessment highlighted weaknesses in waste management, handwashing, patient triage, and equipment to protect staff from exposure to the virus.

Following the assessment, MTaPS worked with CSRefs to develop action plans and provided Ebola prevention and control training, visual aids, and videos addressing these weaknesses. MTaPS trained staff in seven CSRefs and 32 community health centers near the border with Guinea on the characteristics of EVD; protocols for using personal protective equipment; biowaste management; injection security; safe and respectful burials; and disinfecting environments, clothes, and health care equipment. Those trained included administrators, doctors, pharmacists, hygienists, medical assistants, midwives and nurses. The CSRefs also received EVD prevention and control equipment, such as cleaning products for staff hygiene and disposal bins for waste management.

IMPROVED HYGIENE AND PREPAREDNESS

MTaPS followed up with the DGSHP and regional health directorates to organize supervision of Ebola response activities. All seven CSRefs implemented their action plans with five of them reaching 75% on the WHO scorecard and moving from intermediate to advanced level. This IPC assistance produced measurable gains in Mali's capacity for stronger Ebola prevention and response—a key approach to boosting health security in Mali and beyond as part of the United States' Global Health Security Agenda.

8. MONITORING, EVALUATION, RESEARCH, & LEARNING

A. MONITORING & EVALUATION

QUARTER 3 PROGRESS

DEVRESULTS DATA DASHBOARDS

The MERL HQ team, in collaboration with the MSH SI and Deloitte data analytics teams, finalized the design of Power BI dashboards that will supplement the existing DevResults dashboards. The dashboards include visualizations that display global objective and subobjective indicators as well as GHSA, country-specific, MNCH, and COVID-19 dashboards. The MERL HQ team conducted a series of data quality checks, and the dashboards are in the last stage of revisions. Data will be refreshed on a monthly or quarterly basis as necessary. In the next quarter, the dashboards will be final, and the MERL HQ team and SI team will hold a launch and training of the dashboards for all MTaPS HQ and country staff. The training will provide guidance for navigating the dashboards and using the data to support evidence-based decision making.

COVID-19 IN-COUNTRY ACTIVITY REPORTS

MTaPS has engaged with local stakeholders to respond to the pandemic in 12 countries. MTaPS has implemented capacity building and IPC activities, strengthened emergency SCMS, and developed SOPs to prevent and reduce the spread of the disease. MTaPS country teams have been collecting data to track the implementation and progress of MTaPS' COVID-19 activities. MTaPS has generated over 100 country reports as part of monitoring and evaluating COVID-19 activity progress, including the number of health workers who received COVID-19 training and facilities in compliance with COVID-19 IPC guidelines.

DATA QUALITY ASSURANCE (DQA) AUDIT

The MTaPS DQA aims to identify areas to improve MTaPS' data quality and the system producing this data and will propose remedial actions as needed. The DQA will verify the quality of reported project-level data, assess the project's data management and reporting system, and define a clear action plan to address the weaknesses observed. MERL HQ will share lessons across all MTaPS countries and update the data collection and management SOP to reflect the DQA findings. The DQA will be implemented in six countries with MTaPS regional representation: Bangladesh, the Philippines, Burkina Faso, Mali, Kenya, and Tanzania.

In Q3, the MERL HQ team published an RFP and received several competitive proposals. The MERL HQ team did a thorough review and scoring of the proposals to select the final consultant. The DQA tool was also finalized. It was adapted from the MSH DQA tool to align more closely with MTaPS' work. The tool will collect important information on the MTaPS data collection process and data management system.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Finalize and integrate Power BI dashboards: MERL HQ, MSH SI, and Deloitte teams will finalize all Power BI dashboards and integrate them in DevResults	July 2022
Launch Power BI dashboards and provide training sessions: MERL HQ and MSH SI will provide training sessions to MTaPS staff and demonstrate their use for project implementation and decision making	July 2022
Implement DQA in six countries: MERL HQ will finalize the contract with the DQA consultant, train them on the DQA tool, and oversee completion of the DQA	August 2022

B. KNOWLEDGE MANAGEMENT

QUARTER 3 PROGRESS

MTaPS PSS in Practice Knowledge Exchange

Optimizing the Use of Antimicrobial Medicines in Human Health. On April 5, 2022, Dr. Hema Yacouba, Senior Technical Advisor, MTaPS/Burkina Faso, presented on lessons learned in establishing and training DTCs at HCFs in Burkina Faso. DTCs are a key step in fighting AMR.

Electronic Regulatory Information Management Systems: Implementation and Use. On April 19, 2022, Deane Putzier, MTaPS Senior Principal Technical Advisor, presented an overview of MTaPS RSS tools and their implementation and use in supported countries.

Establishing QMS in NMRAs in Bangladesh, Mozambique, Nepal, and Rwanda. On April 26, 2022, MTaPS Principal Technical Advisor Kate Kikule, MTaPS/Rwanda Country Project Director John Patrick Mwesigye, MTaPS/Mozambique Country Project Director Denylson Namburete, MTaPS/Nepal Technical Advisor Samrat Baral, and MTaPS/Bangladesh Country Project Director Jebun Rahman presented on the program's efforts to strengthen QMS in supported countries.

Understanding the Role of Sex and Gender in Health and PSS. On June 7, 2022, Dr. Lynn Lieberman Lawry, MTaPS Gender Advisor, presented on the implications of sex, gender, and equity as concepts for health systems and PSS in the context of pharmacokinetics, pharmacodynamics, PV, AMR, and supply chain management.

Technical Documentation

Advancing RSS. MTaPS drafted a technical program update on its progress and achievements to date in advancing RSS through legal and regulatory frameworks; QMS; product registration and marketing authorization; licensing establishments and regulatory inspections; regional regulatory harmonization; and PV.

EVD Preparedness Response in Southwestern Uganda. MTaPS drafted a technical highlight on its support to the Ugandan MOH, implementing partners, and district health teams to strengthen their capacity to respond to the Ebola outbreak in southwestern Uganda.

Factors Contributing to the Effectiveness of IPC Committees in Mali. MTaPS drafted a technical brief on improving IPC and optimizing RUA through effective, national MSC to contain AMR.

Supporting COVID-19 Vaccines Safety Surveillance in Jordan. MTaPS drafted a technical brief on AEFI reporting in Jordan during the nationwide effort to vaccinate its population against COVID-19.

Strengthening Stewardship of the Pharmaceutical System and Coordination of Partner Support in the Democratic Republic of Congo. MTaPS drafted a technical brief on its efforts in the DRC to improve commodity management and process review and to make recommendations for improving stewardship of DRC's pharmaceutical system.

MISCELLANEOUS ACTIVITIES

- Developed an internal pause and reflect tool and guidance for PY5 work planning and adaptation
- Reviewed KM section of PY5 work plans for the following portfolios: Nepal, Cross-Bureau, and CSL

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
MTaPS PSS in practice knowledge exchanges	July – September 2022
Technical documentation	July – September 2022
Review KM section of PY5 work plans	July – September 2022

C. LEARNING

QUARTER 3 PROGRESS

- The MERL HQ team hosted check-ins with learning agenda leads in order to maintain accountability for both PY4 and PY5 learning products
- The MERL HQ team also reviewed the learning section of PY5 work plans for the following portfolios: Nepal, Cross-Bureau, and CSL

Several learning questions have been successfully answered through developed learning products:

- **Global:** What approaches are countries using to engage the private sector in the supply of medical products and provision of pharmaceutical services, and what has been the effect of this engagement on access to and appropriate use of medicines?
- **Cross-Bureau:** Roadmap for HTA institutionalization
- **Democratic Republic of the Congo:** What are the key factors enabling or hindering registration of MNCH products at the national level?
- **Mali:** What are the key enabling factors for the effective functioning of IPC committees?

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Country teams will continue to develop PY4 learning products according to the PY4/PY5 learning agenda work plan	July – September 2022
The MERL HQ team will continue to have regular check-ins with learning leads in order to ensure product development	July – September 2022
Review learning section of PY5 work plans	July – September 2022

D. RESEARCH

QUARTER 3 PROGRESS

This quarter, MTaPS had its paper, "Assessing Progression of HTA Implementation in Asia—a Balanced Scorecard for Cross Comparison of Selected Countries in Asia," accepted for publication in the *International Journal of Technology Assessment in Health Care*. The paper used a BSC approach to provide an update on the use of HTA in Asia, finding that South Korea and Thailand are leading in the region. The paper found that advanced HTA programs have independent HTA agencies with a broad remit, explicit process and methods, network of researchers, and routine use of HTA. Furthermore, it found that political will, technical expertise, and sustained financing remain challenges for sustainable HTA programs in the region.

The program also prepared and submitted 16 individual abstracts for consideration at 4 international conferences—3 abstracts were submitted twice for a total of 19 submissions.

People that Deliver Global Indaba, scheduled for October12–13, 2022:

- No Passport Required: Re-Imagining Technical Assistance in a Changing World
- Pharmaceutical Systems Strengthening—How to Strengthen This Key Subsystem of the Health System
- Procurement and Supply Chain Management (PSCM) Local Technical Assistance Providers Scheme (LTAPS) for Local Government Units in the Philippines

Health Systems Research (HSR 2022), scheduled for October 31–November 4, 2022:

- Streamlining Political Economy Analysis (PEA) Approaches in Health Systems Research
- Engaging with Accountability Ecosystems to Improve Health System Responsiveness for Improved Access to and Appropriate Use of Quality Maternal, Newborn, and Child Health Medicines
- Effective Multisectoral Coordination on Antimicrobial Resistance: Lessons from a 13-Country Experience
- International Benchmarking of Affordability Policies for NCDs—Lessons from Latin America
- Charting the Progress of HTA in Asia: Are We Ready for Evidence-Based Decision Making?
- Strengthening Health Care Workers' Capacity in the Use of an Electronic Reporting System to Support Tuberculosis Elimination Efforts in Bangladesh
- Pharmaceutical Systems Strengthening—How to Strengthen This Key Subsystem of the Health System

American Society of Tropical Medicine and Hygiene, scheduled for October 30–November 3, 2022:

- Strengthening Health Care Workers' Capacity in the Use of an Electronic Reporting System to Support Tuberculosis Elimination Efforts in Bangladesh

American Public Health Association, scheduled for November 6–9, 2022:

- Uptake and Integration of the WHO AWaRe Categorization of Antibiotics in National Antimicrobial Stewardship Documents in LMICs: Experiences from Five Countries

- Strengthening Infection Prevention and Control to Enhance Preparedness and Response for COVID-19 Emergencies in Ethiopia
- Strengthening Infection Prevention and Control to Reduce Vulnerabilities to Emerging and Re-Emerging Infectious Diseases—the Case of Ethiopia
- Continuous Quality Improvement of Infection Prevention and Control Practices in Health Facilities in Cameroon: Lessons Learned
- USAID MTaPS Support to the Government of Bangladesh to Strengthen the Health Care System to Combat COVID-19
- No Passport Required: Re-Imagining Technical Assistance in a Changing World
- PSS Insight v2.0—a Framework and Indicators for Measuring Pharmaceutical Systems Strengthening
- Strengthening Health Care Workers' Capacity in the Use of an Electronic Reporting System to Improve Tuberculosis Management in Bangladesh

HSR 2022 notified MTaPS that none of the four panel proposals submitted in the previous quarter were accepted. Notifications for the individual abstracts submitted this quarter are pending. This quarter, MTaPS also finalized its preparations for the 2022 Global Health Security Conference, held June 28–July 1, 2022, in Singapore where the program presented its GHSA work in a mix of panels, oral presentations, and poster sessions as indicated below.

- GHSA-Supported Antimicrobial Resistance Investments: Results and Lessons Learned in Strengthening Infection Prevention and Control; Enhancing Inclusion; and Enabling Rapid COVID-19 Response and Future Pandemic Preparedness (panel)
- Using the Center of Excellence Model to Improve Infection Prevention and Control for Antimicrobial Containment and Service Delivery: Experiences from Uganda (individual presentation)
- A Point Prevalence Survey of Antibiotic Use Across 13 Hospitals in Uganda (individual presentation)
- Improving Infection Prevention and Control Practices: Interventions in Six Tanzanian Hospitals (poster)

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Complete participation in Global Health Security Conference 2022	July 2022

ANNEXES

ANNEX 1: MTAPS INDICATORS

Annex Table 1: MTaPS Performance Indicator Tracking Table

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4Q1 Result[10]	PY4Q2 Result	PY4Q3 Result	PY4Q4 Result	PY4 Cumulative Result
IO.1	% of median international price paid for a set of tracer medicines that was part of the last regular Ministry of Health (MOH) procurement	Baseline/ End-line	179%	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)	Baseline/ End-line	0	N/A	N/A					
MNCH 1	# of countries participating in the dissemination of the regulation guidelines for medical devices	Annually	0	0	0					
MNCH 2	# of MNCH medical devices included in the guidelines	Annually	0	0	0					
MNCH 3	# of stakeholders from regulatory authorities and manufacturers of	Annually	0	0	0					

[10] N/A and data not reported means the country did not have planned activities for the reporting period

	oxygen participating in the dissemination and adoption of the oxygen regulatory framework						
MNCH 4	# of oxygen manufacturers committed to addressing weaknesses identified	Annually	0	0	0		
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	7		
	Bangladesh		0	2	1		
	Indonesia		0	N/A	2		
	Jordan		0	0	0		
	Nepal		0	0	0		
	Rwanda		0	1	0		
	IGAD		0	0	4		
MT 1.1.2	# of MTaPS-supported entities that monitor key elements of the pharmaceutical management operations and make the information publicly available	Annually	0	0	29		
	DRC		0	0	29		
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)		
	IGAD		0	N/A	100% (2/2)		

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					
	Asia Bureau		0	0	1					
	Bangladesh		0	2	2					
	Burkina Faso		0	1	0					
	Global MNCH		0	1	0					
	Indonesia		0	N/A	0					
	Jordan		0	0	0					
	Mozambique		0	0	0					
	Nepal		0	0	3					
	Philippines		0	0	3					
	Rwanda		0	26	17					
	Tanzania		0	N/A	2					
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	N/A	N/A	Data not reported		
MT 1.2.2	# of pharmaceutical regulatory enforcement mechanisms established or strengthened with MTaPS support	Semi-annually	0	0	5	6				
	Global MNCH		0	N/A	0	N/A				
	Mozambique		0	0	2	0				
	Rwanda		0	0	2	6				
	Tanzania		0	N/A	1	N/A				
MT 1.2.3	% of established pharmaceutical regulatory enforcement	Semi-annually			88% (15/17)	82% (9/11)				

	mechanisms that are functional								
	Bangladesh		50%	Data not reported	100% (8/8)	100% (2/2)			
	Mozambique		0%	22% (2/9)	67% (2/3)	67% (2/3)			
	Rwanda		0%	83%	83% (5/6)	83% (5/6)			
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				
	Jordan		0	0	0				
	DRC		0	0	1				
PP 1.3.1	% of USG-supported facilities using MTaPS supported Elmis	Quarterly	0	N/A	N/A	N/A	N/A	Data not reported	
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				
	Jordan		0	0	0				
MT 2.1.2	# of MTaPS-supported health professional training curricula developed or revised to address pharmaceutical management topics	Annually	0	4	2				
	Asia Bureau		0	N/A	1				
	Bangladesh		0	0	0				
	IGAD		0	1	1				

MT 2.2.2	# of persons trained in pharmaceutical management with MTaPS support	Quarterly	0	1,116	11,782	4487		889		2,158					
	Asia Bureau		0	0	99	*Female*	8	*Female*	0	*Female*	0	*Female*			
						Male	17	*Male*	0	*Male*	0	*Male*			
						Unknown	220	*Unknown*	0	*Unknown*	56	*Unknown*			
						Total	245	*Total*	0	*Total*	56	*Total*			
	Bangladesh		0	961	2856	*Female*	168	*Female*	83	*Female*	217	*Female*			
						Male	676	*Male*	367	*Male*	1,005	*Male*			
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*			
						Total	844	*Total*	450	*Total*	1,222	*Total*			
	Cross Bureau		0	N/A	N/A	*Female*	0	*Female*	0	*Female*	0	*Female*			
						Male	0	*Male*	0	*Male*	0	*Male*			
						Unknown	0	*Unknown*	60	*Unknown*	0	*Unknown*			
						Total	0	*Total*	60	*Total*	0	*Total*			
	DRC		0	0	373	*Female*	0	*Female*	1	*Female*	20	*Female*			
						Male	0	*Male*	9	*Male*	39	*Male*			
						Unknown	123	*Unknown*	0	*Unknown*	0	*Unknown*			
						Total	123	*Total*	10	*Total*	59	*Total*			
	IGAD		0	0	843	*Female*	0	*Female*	10	*Female*	0	*Female*			
						Male	0	*Male*	13	*Male*	0	*Male*			
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*			
						Total	0	*Total*	23	*Total*	0	*Total*			
	Indonesia		0	0	0	*Female*	110	*Female*	0	*Female*	7	*Female*			
						Male	94	*Male*	0	*Male*	2	*Male*			
						Unknown	16	*Unknown*	0	*Unknown*	0	*Unknown*			
						Total	220	*Total*	0	*Total*	9	*Total*			
	Jordan		0	N/A	N/A	*Female*	0	*Female*	0	*Female*	0	*Female*			
						Male	0	*Male*	0	*Male*	0	*Male*			
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*			
						Total	0	*Total*	0	*Total*	0	*Total*			
	Mali		0	0	0	*Female*	4	*Female*	N/A	*Female*	N/A	*Female*			
						Male	4	*Male*	N/A	*Male*	N/A	*Male*			
						Unknown	0	*Unknown*	N/A	*Unknown*	N/A	*Unknown*			
						Total	8	*Total*	N/A	*Total*	N/A	*Total*			
	Mozambique		0	40	21	*Female*	6	*Female*	0	*Female*	4	*Female*			
						Male	6	*Male*	0	*Male*	6	*Male*			
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*			
						Total	12	*Total*	0	*Total*	10	*Total*			
	Philippines		0	0	6926	*Female*	2160	*Female*	182	*Female*	437	*Female*			
						Male	833	*Male*	83	*Male*	204	*Male*			
						Unknown	15	*Unknown*	46	*Unknown*	0	*Unknown*			

						Total	3008	*Total*	311	*Total*	641	*Total*		
	Rwanda		0	0	603	*Female*	17	*Female*	13	*Female*	0	*Female*		
						Male	42	*Male*	22	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	142	*Unknown*		
						Total	59	*Total*	35	*Total*	142	*Total*		
	Rwanda PEPFAR		0	N/A	N/A	*Female*	17	*Female*	0	*Female*	5	*Female*		
						Male	42	*Male*	0	*Male*	14	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	59	*Total*	0	*Total*	19	*Total*		
	Tanzania		N/A	N/A	30	*Female*	10	*Female*	N/A	*Female*	N/A	*Female*		
						Male	17	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	27	*Total*		*Total*		*Total*		
MT 2.2.3	# of in-person or e-learning courses developed with MTaPS assistance	Annually	0	1	11									
	Asia Bureau		0	N/A	3									
	Bangladesh		0	0	0									
	Cross Bureau		0	1	1									
	IGAD		N/A	N/A	0									
	Mozambique		0	0	1									
	Philippines		0	0	4									
	Rwanda		0	0	2									
MT 2.2.4	# of people successfully completing MTaPS-developed e-learning courses	Quarterly	0	65	6,917	2250		1,084		0				
	Asia Bureau		0	0	52	*Female*	0	*Female*	0	*Female*	0	*Female*		
						Male	0	*Male*	0	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	0	*Total*	0	*Total*		
	Bangladesh		0	0	0	*Female*	0	*Female*	0	*Female*	0	*Female*		
						Male	0	*Male*	0	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	0	*Total*	0	*Total*		
	Cross Bureau		0	6	8	*Female*	0	*Female*	0	*Female*	0	*Female*		
						Male	0	*Male*	0	*Male*	0	*Male*		
						Unknown	0	*Unknown*	60	*Unknown*	0	*Unknown*		
						Total	0	*Total*	60	*Total*	0	*Total*		

	Mozambique		0	65	0	*Female*	0	*Female*	0	*Female*	0	*Female*		
						Male	0	*Male*	0	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	0	*Total*	0	*Total*		
	Philippines		0	0	6857	*Female*	1602	*Female*	737	*Female*	Data not reported	*Female*		
						Male	648	*Male*	287	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	2250	*Total*	1,024	*Total*		*Total*		
	Rwanda		0	0	0	*Female*	0	*Female*	0	*Female*	N/A	*Female*		
						Male	0	*Male*	0	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	0	*Total*	0	*Total*		*Total*		
MT 2.4.1	# of days reduced for product registration in countries with MTaPS-supported national medicines registration authority	Annually	0	0	180									
MT 2.4.3	# of regional harmonization initiatives with participation by MTaPS-supported NMRAs	Annually	0	0	3									
	Asia Bureau		0	N/A	1									
	IGAD		0	N/A	2									
	Mozambique		0	0	0									
MT 2.4.4	# of countries that have conducted an assessment at any level of the regulatory system	Annually	0	0	0									
MT 2.4.5	# of medicines with current valid registration	Annually	0	0	0									
NP 1	% of USG-assisted organizations with improved performance	Annually	0	0	0									
NP 2	# of wholesalers inspected according to the new good distribution	Annually	0	0	0									

	practices inspection guidelines							
NP 3	# of public- and private-sector pharmacies inspected according to the new good pharmacy practices inspection guidelines	Annually	0	0	0			
NP 4	# of innovations supported through USG assistance	Annually	0	0	0			
NP 6	% of private-sector pharmacies surveyed dispensing prescription medicines without prescription	Annually	0	0	0			
NP 8	# of monitoring visits in which GON participates	Annually	0	0	0			
PP 1.5.1	# of TB and FP commodities for which a quantification process is completed with MTaPS support	Annually	0	0	0			
PP 1.5.2	# of TB and FP commodities procured by DOH through framework agreements, pooled procurement, or other innovative procurement mechanism with support from MTaPS	Annually	0	0	0			
PP 2.2.1	# of TB and FP products registered in the Philippines with MTaPS support	Annually	0	0	0			
PP 3.2	# of synergized approaches for supply chain management, human resources for health, and engagements with	Annually	0	0	0			

	private sector and local government units							
PP 3.3	% of MTaPS-supported entities carrying out supply chain management functions without external technical assistance	Annually	0	0	0			
DRC 3	# of health facilities that are implementing the post-training action plan	Annually	0	0	0			
DRC 4	% of facilities implementing appropriate storage of oxytocin	Annually	0	0	0			
DRC 5	# of DPS and/or IPS using the updated directory of registered medicines	Annually	0	0	0			
MT 3.1.1	# and % MTaPS-supported health facilities that have newly implemented or improved PMIS to document specific components of the pharmaceutical system for analysis and reporting with MTaPS support	Semi-annually				100% (2,086/2,006)		
	Bangladesh		90%	92%	100% (2006/ 2006)	100% (2,006/2,006)		
	Philippines		0%	0%	0%	N/A		
	Rwanda		0%	100%	100% (10/10)	100% (80/80)		
MT 3.1.2	# and % of MTaPS-supported health facilities using interoperable PMIS tools	Semi-annually			85% (6434/ 7565)	75% (5913/7865)		
	Bangladesh		61%	87%	77% (4734/ 6173)	72.27% (4,461/6,173)		

	Mozambique		0%	68%	85% (1412/1652)	85.47% (1,412/1,652)												
	Rwanda PEPFAR					100% (40/40)												
MT 3.1.3	# of countries that have a functional early warning system linking clinical and stock data	Annually	0	0	2													
	Bangladesh		0	Yes	Yes													
	Mozambique		0	0	0													
MT 3.2.1	# and % of MTaPS-supported health facilities 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)	75% (4723/6270)		62% (3916/6271)		76% (4761/6271)								
	Bangladesh		74.3% (84/115)	92% (4293/4680)	77% (4488/5826)	*Hospitals*	64%	*Hospitals*	50% (155/308)	*Hospitals*	63.64% (196/308)	*DGFP (Sub-District Level)*						
						Other	77%	*Other*	63% (3,644/5,786)	*Other*	76.73% (4,439/5,786)	*DGFP (Central/ Regional Level)*						
						Total	141%	*Total*	62% (3,799/6,094)	*Total*	76% (4,635/6,094)	*Total*						
	DRC		42% (74/177)	Data not reported	56% (100/177)	*Hospitals*	100% (10/10)	*Hospitals*	90% (9/10)	*Hospitals*	100% (10/10)	*Hospitals*						
						Health centers	50.30% (84/167)	*Health centers*	65% (108/167)	*Health centers*	69% (116/167)	*Health centers*						
						Total	53.11% (94/177)	*Total*	66% (117/177)	*Total*	71% (126/177)	*Total*						
MT 3.3.2	# of PSS technical documents authored by MTaPS	Semi-annually	0	14	39	27												
	Asia Bureau		0	N/A	N/A	0												
	CSL		0	N/A	1	3												
	Cross Bureau		10	13	10	4												
	Indonesia		0	N/A	0	4												
	Jordan		0	N/A	N/A	0												
	Global MNCH		0	1	1	1												
	Rwanda		0	N/A	27	15												

MT 3.3.3	# of activities to engage with stakeholders to advance the PSS global learning agenda	Quarterly	0	4	12	11	8	19		
	Asia Bureau		0	N/A	N/A	0	0	0		
	CSL		0	N/A	0	0	5	3		
	Cross Bureau		0	4	12	8	2	11		
	Indonesia		0	N/A	0	3	1	5		
PP 3.1	# of joint success stories produced	Annually	0	0	6					
PP 3.4	# of gender assessments, analyses, studies, or research conducted by MTaPS on PSCM and PV	Annually	0	0	1					
DRC 6	% of MTaPS-supported health facilities that used data to inform medicine use, patient safety, quality of pharmaceutical services, and/or pharmacy benefits	Semi-annually	0	N/A	100%	100%				
MNCH 18	# of countries supported to implement decentralized procurement systems	Semi-annually	0	N/A	N/A	1				
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					

MNCH 20	# of countries where bottlenecks in access to pediatric amoxicillin are identified and presented to MOH	Annually	0	0	N/A					
MT 4.1.2	# of new or revised medicine pricing policies developed with MTaPS assistance	Annually	0	N/A	N/A					
	Indonesia		0	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					
	Bangladesh		0	1	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					
	Indonesia		0	N/A	0					
MT 4.2.3	# of strategic plans developed or updated to address pharmaceutical costs and financing with MTaPS support	Semi-annually	0	2	0	1				
	Bangladesh		0	2	0	N/A				
	Indonesia		N/A	N/A	N/A	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					
	Indonesia		N/A	N/A	No					
MT 4.3.2	Has the country reviewed public-	Annually	N/A	N/A	Yes					

	sector pharmaceutical financing in the last fiscal year? (yes/no)									
	Indonesia		N/A	N/A	Yes					
MT 4.3.3	Does the country have system(s) to track pharmaceutical expenditures? (yes/no)	Annually	N/A	N/A	0					
	Indonesia		N/A	N/A	0					
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					
	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	N/A					
MT 5.1.1	% of service delivery points with stock out of FP, TB, and HIV-AIDS tracer commodities	Quarterly								
	Philippines					38.31% (5262/13734)	44% (6,171/13,953)	41% (671/1626)		
	First-line TB meds (4 FDC)		40.5%	30% (472/1552)	19%	22.26% (348/1563)	25.16% (386/1,534)	14.29% (12/84)		
	TB pediatric med (4FDC)		90.6%	97% (856/883)	55%	59.73% (740/1239)	55.66% (693/1,245)	42.17% (35/83)		
	TB preventive treatment (for children)		63.8%	65% (645/987)	87%	89.97% (987/1097)	76.18% (355/466)	85.15% (321/377)		
	TB second-line drug (Levofloxacin 500mg)		N/A	53% (105/199)	0%	-	3.54% (7/198)	N/A		
	TB second-line drug (Moxifloxacin 400mg)		N/A	5% (9/199)	0%	-	-	N/A		
	TB second-line drug (Linezolid 600mg)		N/A	12% (24/199)	0%	-	4.55% (17/198)	N/A		

	TB second-line drug (Bedaquiline)		N/A	13% (25/199)	0%	-	27.79% (9/198)	N/A		
	GeneXpert cartridges		N/A	3% (13/395)	18%	-	31.64% (177/637)	33% (190/570)		
	FP injectable		30.2%	12% (218/1775)	34%	31.12% (526/1690)	69.95% (535/1,691)	16% (14/86)		
	FP implant		52.7%	55% (717/1316)	39%	40.8% (603/1478)	33.59% (894/1,278)	32% (27/83)		
	FP oral COC		25.6%	8% (143/1798)	16%	36.6% (624/1705)	24.41% (569/1,694)	21% (18/86)		
	FP oral POP		69.3%	31% (507/1630)	20%	21.49% (369/1717)	47.55% (411/1,684)	10% (9/86)		
	IUD		36.7%	29% (454/1566)	42%	43.97% (674/1533)	21.15% (679/1,428)	41% (35/85)		
	Male condom		38.9%	21% (358/1743)	22%	22.84% (391/1712)	25.16% (360/1,702)	12% (10/86)		
MT 5.1.1 (FP)	Stockout rates of tracer medicines in MTaPS-supported health facilities (FP)	Semi-annually		N/A	N/A	.13% (38/30,172)				
	Bangladesh									
MT 5.1.2	% of tracer products stocked according to plan	Semi-annually								
	Bangladesh			Data not reported		*Stocked according to plan*	50%	*Stocked according to plan*		
						Overstocked	50%	*Overstocked*		
						Understocked	0	*Understocked*		
						Stocked out	0	*Stocked out*		
	DRC			Data not reported		*Stocked according to plan*	58%	*Stocked according to plan*		
						Overstocked	26%	*Overstocked*		
						Understocked	16%	*Understocked*		
						Stocked out	0%	*Stocked out*		
MT 5.1.2 (FP)	% of tracer products stocked according to plan (FP)	Semi-annually								
	Bangladesh			Data not reported		*Stocked according to plan*	50%			
						Overstocked	50%			
						Understocked	0			
						Stocked out	0			
	% of tracer products stocked	Semi-annually								

	according to plan (TB)									
MT 5.1.2 (TB)	*Bangladesh*			Data not reported		*Stocked according to plan*	N/A			
						Overstocked	N/A			
						Understocked	N/A			
						Stocked out	N/A			
MT 5.1.3	% of initially MTaPS-supported supply chain functions carried out by national entities that are done without external technical assistance	Semi-annually	0%	Data not reported	100% (3/3)	100% (3/3)				
	Bangladesh		0%	Data not reported	100% (3/3)	*LMIS*	100% (1/1)	*LMIS*		
						Inventory management	100% (2/2)	*Inventory management*		
MT 5.2.1	% of MTaPS-supported health facilities which have developed, adopted, or implemented pharmaceutical services standards	Semi-annually	0%	0%	0% (0/100)	0% (0/0)				
	Rwanda		0%	0%	0% (0/100)	0% (0/0)				
MT 2.2.2	% of MTaPS-supported health facilities promoting patient-centered pharmaceutical services	Semi-annually	0%	N/A	N/A					
	Rwanda		0%	N/A	N/A	*Hospitals*	100% (10/10)			
						Health centers	100% (10/10)			
						Pharmacies	0			
						Other	0			
						Total	100% (20/20)			
MT 5.2.3	% of MTaPS-supported health facilities implementing continuous quality improvement (CQI) approaches to improve medicine use	Semi-annually								

	Rwanda		0%	N/A	N/A	*Hospitals*		100% (10/10)								
						Health centers		100% (10/10)								
						Pharmacies		0								
						Other		0								
						Total		100% (20/20)								
MT 5.3.1	% of MTaPS-supported health facilities that have implemented medicines safety activities	Quarterly	31% (31/100)	3% (3/110)	44% (46/105)	55% (65/117)		65% (105/162)		60% (103/174)						
	Bangladesh		31% (31/100)	3% (3/100)	56% (28/50)	*Pharmaceuticals*	67% (44/65)	*Pharmaceuticals*	67% (44/65)	*Pharmaceuticals*	64.62% (42/65)	*Pharmaceuticals*				
						Total	*67% (44/65)*	*Total*	67% (44/65)	*Total*	64.62% (42/65)	*Total*				
	IGAD		0%	Data not reported	24% (10/41)	*Hospitals*	6.06% (2/33)	*Hospitals*	9% (3/33)	*Hospitals*	7% (3/33)	*Hospitals*				
						Health center	0% (0/6)	*Health center*	0% (0/6)	*Health center*	(0/8)	*Health center*				
						Total	4.88% (2/39)	*Total*	8% (3/39)	*Total*	7% (3/41)	*Total*				
	Jordan		0% (0/0)	0% (0/0)	0% (0/6)	*Hospitals*	N/A	*Hospitals*	N/A	*Hospitals*	N/A	*Hospitals*				
						Health center	N/A	*Health center*	N/A	*Health center*	N/A	*Health center*				
						Total	N/A	*Total*	N/A	*Total*	N/A	*Total*				
	Rwanda		0% (0/10)	0% (0/10)	50% (5/10)	*Hospital*	100% (1/1)	*Hospital*	100% (20/20)	*Hospital*	100% (10/10)	*Hospital*				
						Health center	100% (9/9)	*Health center*	100% (20/20)	*Health center*	100% (10/10)	*Health center*				
						Total	100% (10/10)	*Total*	100% (40/40)	*Total*	100% (20/20)	*Total*				
	Rwanda PEPFAR		0%	N/A	N/A	*Hospital*	100% (1/1)	*Hospital*	100% (10/10)	*Hospital*	100% (10/10)	*Hospital*				
						Health center	100% (9/9)	*Health center*	100% (10/10)	*Health center*	100% (10/10)	*Health center*				
						Total	100% (10/10)	*Total*	100% (20/20)	*Total*	100% (20/20)	*Total*				
	Mozambique		0%	N/A	100%	*Hospital*	100% (2/2)	*Hospital*	100% (4/4)	*Hospital*	100% (2/2)	*Hospital*				
						Health center	100% (7/7)	*Health center*	100% (14/14)	*Health center*	100% (7/7)	*Health center*				
						Total	100% (9/9)	*Total*	100% (18/18)	*Total*	100% (9/9)	*Total*				
MT 5.3.2	% of adverse drug events (ADEs) reported to the NMRA and	Semi-annually														

	reviewed by the NMRA									
	IGAD		0% (0/0)	N/A	100% (1104/ 1104)	95.37% (1,667/1,748)				
	Bangladesh		68%	22%	77% (449/ 586)	86.68% (605/698)				
	Mozambique		60%	N/A	56% (1237/ 2213)	12.19% (2,446/20,070)				
	Rwanda		91%	N/A	55% (102/186)	32.75% (186/568)				
	Tanzania		N/A	N/A	2,641/	N/A				
MT 5.4.2	% of MTaPS-supported health facilities implementing locally identified and prioritized core elements of infection prevention and control activities	Semi-annually	0%	100%	100% (7/7)	100% (7/7)				
	Mozambique		0%	100%	100% (7/7)	100% (7/7)				
MT 5.4.3	# of AMR-related in-country meetings or activities conducted with multisectoral participation	*Quarterly*	0	N/A	N/A	3	0	1		
	Jordan		0	N/A	N/A	3	0	1		
ML 1	# of marketing authorization commission meetings supported by MTaPS	*Quarterly*	0	0	0	0	0	1		
	Mali		0	0	0	0	0	1		
ML 2	# of quarterly meetings to orient key stakeholders on using directory of registered medical products	*Quarterly*	0	0	0	0	0	N/A		

	Mali		0	0	0	0		0		N/A				
EVD 1	# of policies, legislation, regulations, operational documents, or guidelines for EVD management developed or updated with technical assistance from MTaPS	*Quarterly*	0	0	0	3		3		N/A				
	Mali		0	0	0	0		0						
	Rwanda		0	0	0	1		1						
	Senegal		0	0	0	0		0						
	Uganda		0	0	0	2		2						
EVD 2	# of entities implementing EVD guidelines with MTaPS support	*Quarterly*	0	0	0	66		66		N/A				
	Cote D'Ivoire		0	0	0	*ETU*	0	*ETU*	0	*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*	0	*Non-ETU*		*Non-ETU*		
						POE	0	*POE*	0	*POE*		*POE*		
						Total	0	*Total*	0	*Total*		*Total*		
	Mali		0	0	0	*ETU*	0	*ETU*	0	*ETU*		*ETU*		
						Non-ETU	7	*Non-ETU*	7	*Non-ETU*		*Non-ETU*		
						POE	0	*POE*	0	*POE*		*POE*		
						Total	7	*Total*	7	*Total*		*Total*		
	Rwanda		0	0	0	*ETU*	0	*ETU*	N/A	*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*	N/A	*Non-ETU*	N/A	*Non-ETU*		
						POE	0	*POE*	N/A	*POE*		*POE*		
						Total	0	*Total*	N/A	*Total*		*Total*		
	Senegal		0	0	0	*ETU*	0	*ETU*	N/A	*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*	N/A	*Non-ETU*		*Non-ETU*		
						POE	0	*POE*	N/A	*POE*		*POE*		
						Total	0	*Total*	N/A	*Total*		*Total*		
	Uganda		0	0	0	*ETU*	9	*ETU*	9	*ETU*		*ETU*		
						Non-ETU	39	*Non-ETU*	39	*Non-ETU*		*Non-ETU*		
						POE	11	*POE*	11	*POE*		*POE*		
						Total	59	*Total*	59	*Total*		*Total*		
EVD 3	# of persons who received EVD training with MTaPS support	*Quarterly*	0	0	0	924		924		N/A				

	Cote D'Ivoire		0	0	0	*Female*	0	*Female*	0	*Female*	N/A	*Female*		
						Male	0	*Male*	0	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	0	*Total*	0	*Total*		*Total*		
	Mali		0	0	0	*Female*	0	*Female*	0	*Female*		*Female*		
						Male	0	*Male*	0	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	0	*Total*	0	*Total*		*Total*		
	Rwanda		0	0	0	*Female*	17	*Female*	17	*Female*		*Female*		
						Male	15	*Male*	15	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	32	*Total*	32	*Total*		*Total*		
	Senegal		0	0	0	*Female*	0	*Female*	0	*Female*		*Female*		
						Male	0	*Male*	0	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	0	*Total*	0	*Total*		*Total*		
	Uganda		0	0	0	*Female*	464	*Female*	464	*Female*		*Female*		
						Male	428	*Male*	428	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	892	*Total*	892	*Total*		*Total*		
EVD 4	# of MTaPS-supported entities in compliance with EVD IPC guidelines		0	0	0	7		7		N/A				
	Cote D'Ivoire	*Quarterly*	0	0	0	*ETU*	0	*ETU*	0	*ETU*	N/A	*ETU*		
						Non-ETU	0	*Non-ETU*	0	*Non-ETU*		*Non-ETU*		
						POE	0	*POE*	0	*POE*		*POE*		
						Total	0	*Total*	0	*Total*		*Total*		
	Mali		0	0	0	*ETU*	0	*ETU*	0	*ETU*		*ETU*		
						Non-ETU	7	*Non-ETU*	7	*Non-ETU*		*Non-ETU*		
						POE	0	*POE*	0	*POE*		*POE*		
						Total	7	*Total*	7	*Total*		*Total*		
	Rwanda		0	0	0	*ETU*	0	*ETU*	0	*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*	0	*Non-ETU*		*Non-ETU*		
						POE	0	*POE*	0	*POE*		*POE*		
						Total	0	*Total*	0	*Total*		*Total*		
	Senegal		0	0	0	*ETU*	0	*ETU*	0	*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*	0	*Non-ETU*		*Non-ETU*		
						POE	0	*POE*	0	*POE*		*POE*		
						Total	0	*Total*	0	*Total*		*Total*		
PP 2.3.1	% of sentinel facilities using PViMS	*Quarterly*	0	0	20%	68.66% (138/201)		16% (32/200)		99% (199/200)				
	Philippines		0	0	20%	68.66% (138/201)		16% (32/200)		99% (199/200)				
JO 1	# of National Vaccine	*Quarterly*	0	N/A	N/A	1		N/A		0				

	Procurement Modernization Committee (NVPMC) meetings with MTaPS support.									
	Jordan		0	N/A	N/A	1	N/A	0		
JO 4	Number of awareness-raising activities on AMR and rational use of antibiotics conducted	*Quarterly*	0	N/A	N/A	4	N/A	0		
	Jordan		0	N/A	N/A	4	N/A	0		
JO 5	Number of youth reached through AMR activities covering health education messages related to AMR with MTaPS support	*Quarterly*	0	N/A	N/A	0	0	0		
	Jordan		0	N/A	N/A	*Female* 0 *Male* 0 *Unknown* 0 *Total* 0	*Female* 0 *Male* 0 *Unknown* 0 *Total* 0	*Female* 0 *Male* 0 *Unknown* 0 *Total* 0	*Female* *Male* *Unknown* *Total*	
JO 6	Number 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	0	0		
	Jordan		0	N/A	N/A	0	0	0		
JO 7	# of COVID-19 vaccines safety surveillance reports produced with MTaPS support	Quarterly	0	N/A	N/A	1	1	2		
	Jordan		0	N/A	N/A	1	1	2		
MSC 1	# of AMR-related in-country meetings or activities conducted with	Quarterly	0	122	170	55	39	50		

	multisectoral participation									
	Bangladesh		0	3	2	3	1	2		
	Burkina Faso		0	2	2	1	1	1		
	Senegal		0	2	5	2	2	1		
	Cameroon		0	5	7	1	1	1		
	Côte d'Ivoire		0	35	67	14	22	22		
	DRC		0	6	20	3	2	3		
	Ethiopia		0	1	N/A	N/A	N/A	3		
	Jordan		0	0	2	1	N/A	N/A		
	Kenya		0	38	26	16	2	2		
	Mali		0	16	6	0	2	5		
	Mozambique		0	0	13	4	3	5		
	Nigeria		0	0	6	3	0	2		
	Tanzania		0	4	2	2	2	2		
	Uganda		0	9	7	4	1	1		
MSC 2	# and % of female participants in meetings or other events organized by the multisectoral body on AMR	Semi-annually								
	Bangladesh		29% (24/84)	29% (24/84)	29% (12/41)	19% (46/240)				
	Burkina Faso		18% (3/17)	22% (6/27)	33% (10/10)	29% (9/31)				
	Cameroon		50% (2/4)	39% (39/101)	52% (32/62)	45% (20/44)				
	Côte d'Ivoire		38% (21/55)	38% (21/55)	43% (70/163)	37% (79/214)				
	DRC		34%	36% (45/124)	32% (30/93)	34% (33/98)				
	Ethiopia		22%	17%	N/A	0 (0/0)				
	Jordan		45% (5/11)	Data not reported	45% (5/11)	N/A				
	Kenya		66%	43% (496/1147)	51% (105/207)	35% (13/37)				
	Mali		15%	16% (20/124)	20% (22/109)	21% (11/51)				
	Mozambique		48% (11/23)	Data not reported	40% (4/10)	40% (6/15)				

	Nigeria		Data not reported	Data not reported	41% (17/41)	N/A		
	Senegal		58% (54/93)	58% (54/93)	34% (11/32)	37% (26/71)		
	Tanzania		14% (3/21)	14% (3/21)	0% (0/0)	22% (11/50)		
	Uganda		Data not reported	Data not reported	61% (28/46)	42% (33/78)		
MSC 3	# of policies, legislation, regulation, and operational documents related to national action plan on AMR implementation developed or updated with MTaPS support	Annually	0	17	13			
	Bangladesh		0	0	2			
	Burkina Faso		0	0	1			
	Cameroon		0	1	1			
	Côte d'Ivoire		0	0	0			
	DRC		0	3	0			
	Kenya		0	3	3			
	Mali		0	8	0			
	Mozambique		0	N/A	2			
	Nigeria		0	N/A	0			
	Senegal		0	1	2			
	Tanzania		0	1	2			
	Uganda		0	0	0			
MSC 4	# of multisectoral bodies that have developed a national monitoring framework with MTaPS support	Annually	0	1	1			
	Bangladesh		0	0	0			
	Burkina Faso		0	0	0			
	Cameroon		0	0	0			
	Côte d'Ivoire		0	0	0			
	DRC		0	0	0			

	Kenya		0	1	1												
	Mali		0	0	0												
	Mozambique		0	0	0												
	Nigeria		0	N/A	0												
	Senegal		0	0	0												
	Tanzania		0	0	0												
	Uganda		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	160		46		73							
	Bangladesh		0	0	0	*Female*	0	*Female*	N/A	*Female*	0	*Female*					
						Male	0	*Male*	N/A	*Male*	0	*Male*					
						Unknown	0	*Unknown*	N/A	*Unknown*	0	*Unknown*					
						Total	0	*Total*	N/A	*Total*	0	*Total*					
	Burkina Faso		0	0	80	*Female*	Data not reported	*Female*	0	*Female*	0	*Female*					
						Male		*Male*	0	*Male*	0	*Male*					
						Unknown		*Unknown*	0	*Unknown*	0	*Unknown*					
						Total		*Total*	0	*Total*	0	*Total*					
	Cameroon		0	0	20	*Female*	0	*Female*	N/A	*Female*	N/A	*Female*					
						Male	0	*Male*	N/A	*Male*		*Male*					
						Unknown	0	*Unknown*	N/A	*Unknown*		*Unknown*					
						Total	0	*Total*	N/A	*Total*		*Total*					
	Côte d'Ivoire		0	134	0	*Female*	0	*Female*	0	*Female*	N/A	*Female*					
						Male	0	*Male*	0	*Male*		*Male*					
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*					
						Total	0	*Total*	0	*Total*		*Total*					
	DRC		0	0	463	*Female*	0	*Female*	0	*Female*	N/A	*Female*					
						Male	0	*Male*	0	*Male*		*Male*					
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*					
						Total	0	*Total*	0	*Total*		*Total*					
	Ethiopia		0	150	N/A	*Female*	N/A	*Female*	0	*Female*	0	*Female*					
						Male		*Male*	0	*Male*	0	*Male*					
						Unknown		*Unknown*	0	*Unknown*	0	*Unknown*					
						Total		*Total*	0	*Total*	0	*Total*					
	Kenya		0	0	0	*Female*	0	*Female*	6	*Female*	0	*Female*					
						Male	0	*Male*	16	*Male*	0	*Male*					
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*					

						Total	0	*Total*	22	*Total*	0	*Total*		
	Mali		0	30	2	*Female*	0	*Female*	N/A	*Female*	N/A	*Female*		
						Male	0	*Male*	N/A	*Male*		*Male*		
						Unknown	0	*Unknown*	N/A	*Unknown*		*Unknown*		
						Total	0	*Total*	N/A	*Total*		*Total*		
	Mozambique		0	0	45	*Female*	5	*Female*	2	*Female*	23	*Female*		
						Male	2	*Male*	3	*Male*	27	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	7	*Total*	5	*Total*	50	*Total*		
	Nigeria		0	0	0	*Female*	23	*Female*	0	*Female*	0	*Female*		
						Male	24	*Male*	0	*Male*	0	*Male*		
						Unknown	47	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	94	*Total*	0	*Total*	0	*Total*		
	Senegal		0	0	0	*Female*	0	*Female*	N/A	*Female*	N/A	*Female*		
						Male	0	*Male*	N/A	*Male*		*Male*		
						Unknown	0	*Unknown*	N/A	*Unknown*		*Unknown*		
						Total	0	*Total*	N/A	*Total*		*Total*		
	Tanzania		0	0	0	*Female*	0	*Female*	N/A	*Female*	N/A	*Female*		
						Male	0	*Male*	N/A	*Male*		*Male*		
						Unknown	0	*Unknown*	N/A	*Unknown*		*Unknown*		
						Total	0	*Total*	N/A	*Total*		*Total*		
	Uganda		0	0	45	*Female*	27	*Female*	6	*Female*	2	*Female*		
						Male	32	*Male*	13	*Male*	21	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	59	*Total*	19	*Total*	23	*Total*		
MSC 6	# of e-learning courses or m-mentoring platforms related to AMR developed or adapted with MTaPS support	Annually	0	2	25									
	Bangladesh		0	0	0									
	Burkina Faso		0	0	1									
	Cameroon		0	0	20									
	Côte d'Ivoire		0	1	2									
	DRC		0	0	0									
	Kenya		0	0	0									
	Mali		0	1	2									
	Mozambique		0	N/A	0									
	Nigeria		0	N/A	0									
	Senegal		0	0	0									
	Tanzania		0	0	0									
	Uganda		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									
	Bangladesh		0	0	0									
	Burkina Faso		0	0	0									
	Cameroon		0	0	0									
	Côte d'Ivoire		0	0	0									
	DRC		0	0	1									
	Kenya		0	0	0									
	Mali		0	0	0									
	Mozambique		0	N/A	1									
	Nigeria		0	N/A	0									
	Senegal		0	0	0									
	Tanzania		0	0	0									
	Uganda		0	0	0									
IP 1	# of updated policies, legislation, regulations, or operational documents for improving infection prevention and control (IPC)	Annually	0	9	3									
	Bangladesh		0	0	0									
	Burkina Faso		0	0	0									
	Cameroon		0	0	1									
	Côte d'Ivoire		0	7	0									
	DRC		0	0	0									
	Kenya		0	0	0									
	Mali		0	1	0									
	Mozambique		0	N/A	1									
	Nigeria		0	N/A	1									
	Senegal		0	0	0									
	Tanzania		0	1	0									
	Uganda		0	0	0									
IP 2	# of persons trained in IPC with MTaPS support	Quarterly	0	1,199	7,477	988		0		1,618				
	Bangladesh		0	0	95	*Female*	0	*Female*	0	*Female*	47	*Female*		
						Male	0	*Male*	0	*Male*	67	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	0	*Total*	114	*Total*		
	Cameroon		0	86	88	*Female*	0	*Female*	N/A	*Female*	0	*Female*		

						Male	0	*Male*	N/A	*Male*	0	*Male*		
						Unknown	0	*Unknown*	N/A	*Unknown*	0	*Unknown*		
						Total	0	*Total*	N/A	*Total*	0	*Total*		
	Côte d'Ivoire		0	0	131	*Female*	0	*Female*	N/A	*Female*	52	*Female*		
						Male	0	*Male*	N/A	*Male*	76	*Male*		
						Unknown	0	*Unknown*	N/A	*Unknown*	0	*Unknown*		
						Total	0	*Total*	N/A	*Total*	128	*Total*		
	DRC		0	0	94	*Female*	0	*Female*	0	*Female*	N/A	*Female*		
						Male	0	*Male*	0	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	0	*Total*	0	*Total*		*Total*		
	Ethiopia		0	0	N/A	*Female*	N/A	*Female*	N/A	*Female*	4	*Female*		
						Male		*Male*		*Male*	24	*Male*		
						Unknown		*Unknown*		*Unknown*	0	*Unknown*		
						Total		*Total*		*Total*	28	*Total*		
	Kenya		0	642	5,230	*Female*	16	*Female*	8	*Female*	64	*Female*		
						Male	14	*Male*	5	*Male*	41	*Male*		
						Unknown	80	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	110	*Total*	13	*Total*	105	*Total*		
	Mali		0	0	21	*Female*	0	*Female*	0	*Female*	9	*Female*		
						Male	0	*Male*	0	*Male*	20	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	0	*Total*	29	*Total*		
	Mozambique		0	0	0	*Female*	0	*Female*	21	*Female*	6	*Female*		
						Male	0	*Male*	23	*Male*	7	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	44	*Total*	13	*Total*		
	Nigeria		0	0	15	*Female*	210	*Female*	N/A	*Female*	24	*Female*		
						Male	124	*Male*	N/A	*Male*	18	*Male*		
						Unknown	0	*Unknown*	N/A	*Unknown*	0	*Unknown*		
						Total	334	*Total*	N/A	*Total*	42	*Total*		
	Senegal		0	0	22	*Female*	0	*Female*	5	*Female*	70	*Female*		
						Male	0	*Male*	8	*Male*	77	*Male*		
						Unknown	62	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	62	*Total*	13	*Total*	147	*Total*		
	Tanzania		0	471	17	*Female*	22	*Female*	60	*Female*	0	*Female*		
						Male	18	*Male*	56	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	40	*Total*	116	*Total*	0	*Total*		
	Uganda		0	0	1,247	*Female*	257	*Female*	75	*Female*	562	*Female*		
						Male	185	*Male*	98	*Male*	450	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	442	*Total*	173	*Total*	1,012	*Total*		

	# and % of MTaPS-supported facilities that are using standardized tool(s) for monitoring IPC and informing programmatic improvement		50% (8/16)	100% (9/9)	94% (107/114)	91% (111/122)		95% (151/159)		88% (125/141)					
IP 3	*Bangladesh*	Quarterly	0% (0/0)	0% (0/0)	100% (2/2)	*Hospitals*	50% (2/4)	*Hospitals*	50% (2/4)	*Hospitals*	50% (2/4)	*Hospitals*			
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	50% (2/4)	*Total*	50% (2/4)	*Total*	50% (2/4)	*Total*			
	Cameroon		0% (0/0)	0% (0/0)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*			
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	100% (12/12)	*Total*	100% (12/12)	*Total*	100% (12/12)	*Total*			
	Côte d'Ivoire		0% (0/0)	0% (0/0)	100% (12/12)	*Hospital*	73% (16/22)	*Hospital*	100% (22/22)	*Hospital*	100% (20/20)	*Hospital*			
						Animal health centers	0	*Animal health centers*	0	*Animal health centers*	100% (2/2)	*Animal health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	73% (16/22)	*Total*	100% (22/22)	*Total*	100% (22/22)	*Total*			
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (12/12)	*Hospitals*			
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	100% (7/7)	*Total*	100% (7/7)	*Total*	100% (12/12)	*Total*			
	Ethiopia		0% (0/0)	50% (15/30)	N/A	*Hospitals*	N/A	*Hospitals*	0 (0/5)	*Hospitals*	100% (5/5)	*Hospitals*			
						Health centers	N/A	*Health centers*	0	*Health centers*	0	*Health centers*			
						Others	N/A	*Others*	0	*Others*	0	*Others*			
						Total	N/A	*Total*	0 (0/5)	*Total*	100% (5/5)	*Total*			
	Jordan		0% (0/0)	0% (0/0)	0% (0/4)	*Hospitals*	N/A	*Hospitals*	N/A	*Hospitals*	N/A	*Hospitals*			
						Health centers		*Health centers*		*Health centers*		*Health centers*			
						Others		*Others*		*Others*		*Others*			
						Total		*Total*		*Total*		*Total*			
	Kenya		0% (0/0)	0% (0/0)	100% (20/20)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*			
						Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	100% (20/20)	*Total*	100% (20/20)	*Total*	100% (20/20)	*Total*			

	Mali		0% (0/0)	0% (0/0)	100% (16/16)	*Hospital*	100% (9/9)	*Hospital*	100% (9/9)	*Hospital*	100% (9/9)	*Hospital*		
						Health centers	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (16/16)	*Total*	100% (16/16)	*Total*	100% (16/16)	*Total*		
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	42% (3/7)	*Hospital*		
						Health centers	0	*Health centers*	0	*Health centers*	0 (0/0)	*Health centers*		
						Others	0	*Others*	0	*Others*	0 (0/0)	*Others*		
						Total	100% (7/7)	*Total*	100% (7/7)	*Total*	42% (3/7)	*Total*		
	Nigeria		0% (0/0)	Data not reported	0% (0/0)	*Hospitals*	0% (0/3)	*Hospitals*	0	*Hospitals*	28% (2/7)	*Hospitals*		
						Health centers	0	*Health centers*	14% (1/7)	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	0% (0/3)	*Total*	14% (1/7)	*Total*	28% (2/7)	*Total*		
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	*Hospitals*	100% (8/8)	*Hospitals*	57% (8/14)	*Hospitals*	61% (8/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (8/8)	*Total*	57% (8/14)	*Total*	61% (8/13)	*Total*		
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (13/13)	*Hospitals*	100% (10/10)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (10/10)	*Total*	100% (13/13)	*Total*	100% (10/10)	*Total*		
	Uganda		0% (0/0)	0% (0/0)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (13/13)	*Total*	100% (13/13)	*Total*	100% (13/13)	*Total*		
IP 4	# of countries with improved performance in core IPC components at national level from baseline to follow-up	Annually	0% (0/12)	25% (3/12)	75% (8/12)									
IP 5	# and % of MTaPS-supported facilities implementing CQI to improve IPC	Quarterly	40% (23/57)	83% (39/47)	99% (106/107)	87% (106/122)		86% (118/137)		85% (120/141)				
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	*Hospitals*	50% (2/4)	*Hospitals*	50% (2/4)	*Hospitals*	50% (2/4)	*Hospitals*		

						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	50% (2/4)	*Total*	50% (2/4)	*Total*	50% (2/4)	*Total*		
	Cameroon		0% (0/6)	100% (6/6)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (12/12)	*Total*	100% (12/12)	*Total*	100% (12/12)	*Total*		
	Côte d'Ivoire		50% (2/4)	100% (4/4)	100% (12/12)	*Hospitals*	55% (12/22)	*Hospitals*	100% (22/22)	*Hospitals*	100% (20/20)	*Hospitals*		
						Animal health centers	0	*Animal health centers*	0	*Animal health centers*	100% (2/2)	*Animal health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	55% (12/22)	*Total*	100% (22/22)	*Total*	100% (22/22)	*Total*		
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (12/12)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (7/7)	*Total*	100% (7/7)	*Total*	100% (12/12)	*Total*		
	Ethiopia		0% (0/0	70%	N/A	*Hospitals*	N/A	*Hospitals*	0 (0/5)	*Hospitals*	0% (0/5)	*Hospitals*		
						Health centers	N/A	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	N/A	*Others*	0	*Others*	0	*Others*		
						Total	N/A	*Total*	0 (0/5)	*Total*	0% (0/5)	*Total*		
	Kenya		100% (16/16	100% (16/16)	100% (20/20)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*		
						Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (20/20)	*Total*	100% (20/20)	*Total*	100% (20/20)	*Total*		
	Mali		0% (0/5)	0% (0/5)	94% (15/16)	*Hospital*	100% (9/9)	*Hospital*	100% (9/9)	*Hospital*	100% (9/9)	*Hospital*		
						Health centers	85.71% (6/7)	*Health centers*	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	93.75% (15/16)	*Total*	100% (16/16)	*Total*	100% (16/16)	*Total*		
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	43% (3/7)	*Hospital*		
						Health centers	0	*Health centers*	0	*Health centers*	0 (0/0)	*Health centers*		
						Others	0	*Others*	0	*Others*	0 (0/0)	*Others*		
						Total	100% (7/7)	*Total*	100% (7/7)	*Total*	43% (3/7)	*Total*		

	Nigeria		0% (0/3)	Data not reported	0% (0/0)	*Hospitals*	0% (0/3)	*Hospitals*	14% (1/7)	*Hospitals*	28% (2/7)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	0% (0/3)	*Total*	14% (1/7)	*Total*	28% (2/7)	*Total*		
	Senegal		0% (0/3)	0% (0/3)	100% (8/8)	*Hospitals*	100% (8/8)	*Hospitals*	57% (8/14)	*Hospitals*	61% (8/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (8/8)	*Total*	57% (8/14)	*Total*	61% (8/13)	*Total*		
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (10/10)	*Total*	100% (10/10)	*Total*	100% (10/10)	*Total*		
	Uganda		0% (0/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (13/13)	*Total*	100% (13/13)	*Total*	100% (13/13)	*Total*		
IP 6	# and % of MTaPS-supported facilities with functional IPC committees	Quarterly	35% (18/51)	87% (41/47)	94% (104/110)	90% (110/122)		86% (118/137)		92% (130/141)				
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	*Hospitals*	50% (2/4)	*Hospitals*	50% (2/4)	*Hospitals*	100% (4/4)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	50% (2/4)	*Total*	50% (2/4)	*Total*	100% (4/4)	*Total*		
	Cameroon		0% (0/0)	83% (5/6)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*	92% (11/12)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (12/12)	*Total*	100% (12/12)	*Total*	92% (11/12)	*Total*		
	Côte d'Ivoire		100% (4/4)	100% (4/4)	100% (12/12)	*Hospitals*	73% (16/22)	*Hospitals*	100% (22/22)	*Hospitals*	100% (20/20)	*Hospitals*		
						Animal health centers	0	*Animal health centers*	0	*Animal health centers*	100% (2/2)	*Animal health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	73% (16/22)	*Total*	100% (22/22)	*Total*	100% (22/22)	*Total*		

	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (12/12)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (7/7)	*Total*	100% (7/7)	*Total*	100% (12/12)	*Total*		
	Ethiopia		0% (0/0)	100%	N/A	*Hospitals*	N/A	*Hospitals*	0 (0/5)	*Hospitals*	100% (5/5)	*Hospitals*		
						Health centers	N/A	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	N/A	*Others*	0	*Others*	0	*Others*		
						Total	N/A	*Total*	0 (0/5)	*Total*	100% (5/5)	*Total*		
	Kenya		0% (0/16)	100% (16/16)	92% (18/20)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*	100% (19/19)	*Hospitals*		
						Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (20/20)	*Total*	100% (20/20)	*Total*	100% (20/20)	*Total*		
	Mali		0% (0/5)	0% (0/5)	94% (15/16)	*Hospital*	88.89% (8/9)	*Hospital*	100% (9/9)	*Hospital*	100% (9/9)	*Hospital*		
						Health centers	85.71% (6/7)	*Health centers*	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	75% (14/16)	*Total*	100% (16/16)	*Total*	100% (16/16)	*Total*		
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*		
						Health centers	0	*Health centers*	0	*Health centers*	0 (0/0)	*Health centers*		
						Others	0	*Others*	0	*Others*	0 (0/0)	*Others*		
						Total	100% (7/7)	*Total*	100% (7/7)	*Total*	100% (7/7)	*Total*		
	Nigeria		0% (0/3)	Data not reported	0% (0/3)	*Hospitals*	33.33% (1/3)	*Hospitals*	14% (1/7)	*Hospitals*	28% (2/7)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	33.33% (1/3)	*Total*	14% (1/7)	*Total*	28% (2/7)	*Total*		
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	*Hospitals*	100% (8/8)	*Hospitals*	57% (8/14)	*Hospitals*	61% (8/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (8/8)	*Total*	57% (8/14)	*Total*	61% (8/13)	*Total*		
	Tanzania		17% (1/6)	100% (6/6)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		

						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (10/10)	*Total*	100% (10/10)	*Total*	100% (10/10)	*Total*		
	Uganda		100% (7/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (13/13)	*Total*	100% (13/13)	*Total*	100% (13/13)	*Total*		
IP 7	# and % of MTaPS-supported facilities with improved hand hygiene compliance	Annually												
	Bangladesh		0	0%	100% (2/2)	*Hospitals*								
						Total								
	Cameroon		0	0%	100%	*Hospitals*								
						Total								
	Côte d'Ivoire		0	100%	90% (9/10)	*Hospitals*								
						Total								
	DRC		0		57% (4/7)	*Hospitals*								
						Total								
	Kenya		0		100% (20/20)	*Hospitals*								
						Health centers								
						Total								
	Mali		0	0%	94% (15/16)	*Hospital*								
						Health centers								
						Total								
	Mozambique		0		0% (0/7)	*Hospitals*								
						Total								
	Nigeria		0	N/A	0% 0(0/3)	*Hospitals*								
						Total								
	Senegal		0		100% (8/8)	*Hospitals*								
						Total								
	Tanzania		0		100% (10/10)	*Hospitals*								
						Total								
	Uganda		0		100% (7/7)	*Hospitals*								
						Total								
IP 8	# and % of MTaPS-supported facilities with improved performance in core IPC components	Annually												
	Bangladesh		0		100% (2/2)	*Hospitals*								
						Total								
	Cameroon		0		100% (12/12)	*Hospitals*								
						Total								

	Côte d'Ivoire		0		80% (8/10)	*Hospitals*		
						Total		
	DRC		0		0% (0/0)	*Hospitals*		
						Total		
	Kenya		0		100% (20/20)	*Hospitals*		
						Health centers		
						Total		
	Mali		0		94% (15/16)	*Hospital*		
						Health centers		
						Total		
	Mozambique		0		100% (7/7)	*Hospitals*		
						Total		
	Nigeria		0		0% 0(0/3)	*Hospitals*		
						Total		
	Senegal		0		100% (8/8)	*Hospitals*		
						Total		
	Tanzania		0		60% (6/10)	*Hospitals*		
						Total		
	Uganda		0		0% (0/0)	*Hospitals*		
						Total		
AS1	# of policies, legislation, regulations, or operational documents related to antimicrobial stewardship (AMS) developed or updated with MTaPS support	Annually	0	5	12			
	Bangladesh		0	0	0			
	Burkina Faso		0	0	2			
	Cameroon		0	0	0			
	Côte d'Ivoire		0	1	0			
	DRC		0	1	3			
	Kenya		0	1	3			
	Mali		0	1	0			
	Mozambique		0	N/A	1			
	Nigeria		0	N/A	0			
	Senegal		0	0	1			
	Tanzania		0	1	2			
	Uganda		0	0	0			

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% (90/125)		63% (93/148)		71% (111/156)						
	Bangladesh		0% (0/0)	0% (0/0)	0% (0/2)	*Hospitals*	25% (1/4)	*Hospitals*	50%	*Hospitals*	50% (2/4)	*Hospitals*				
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*				
						Others	0	*Others*	0	*Others*	0	*Others*				
						Total	25% (1/4)	*Total*	50% (1/4)	*Total*	50% (2/4)	*Total*				
	Burkina Faso		0% (0/0)	0% (0/0)	25% (3/12)	*Hospitals*	Data Note Reported	*Hospitals*	N/A	*Hospitals*	0	*Hospitals*				
						Health centers		*Health centers*	N/A	*Health centers*	0% (0/10)	*Health centers*				
						Others		*Others*	N/A	*Others*	0% (0/10)	*Others*				
						Total		*Total*	N/A	*Total*	0% (0/10)	*Total*				
	Cameroon		0% (0/0)	0% (0/0)	92% (11/12)	*Hospitals*	100% (12/12)	*Hospitals*	92% (11/12)	*Hospitals*	100% (12/12)	*Hospitals*				
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*				
						Others	0	*Others*	0	*Others*	0	*Others*				
						Total	100% (12/12)	*Total*	92% (11/12)	*Total*	100% (12/12)	*Total*				
	Côte d'Ivoire		0% (0/0)	0% (0/0)	75% (9/12)	*Hospitals*	40% (9/22)	*Hospitals*	45% (10/22)	*Hospitals*	100% (20/20)	*Hospitals*				
						Health centers	0	*Health centers*	0%	*Health centers*	0% (0/2)	*Health centers*				
						Others	0	*Others*	45%	*Others*	0	*Others*				
						Total	40% (9/22)	*Total*	45% (10/22)	*Total*	90% (20/22)	*Total*				
	Ethiopia		0% (0/0)	N/A	N/A	*Hospitals*	N/A	*Hospitals*	0% (0/5)		0% (0/5)					
						Health centers	N/A	*Health centers*	0		0					
						Others	N/A	*Others*	0		0					
						Total	N/A	*Total*	0% (0/5)		0% (0/5)					
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100% (12/12)	*Hospitals*				
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*				
						Others	0	*Others*	0	*Others*	0	*Others*				
						Total	100% (7/7)	*Total*	100% (7/7)	*Total*	100% (12/12)	*Total*				
	Kenya		6% (1/16)	100% (18/18)	83% (20/24)	*Hospitals*	100% (20/20)	*Hospitals*	100% (20/20)	*Hospitals*	100% (20/20)	*Hospitals*				
						Health centers	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*	100% (1/1)	*Health centers*				
						Pharmacy	0% (0/2)	*Pharmacy*	0%	*Pharmacy*	0%	*Pharmacy*				
						Total	100% (21/23)	*Total*	100% (21/21)	*Total*	100% (21/21)	*Total*				

	Mali		0% (0/0)	0% (0/0)	56% (9/16)	*Hospital*	11.11% (1/9)	*Hospital*	78% (7/9)	*Hospital*	100% (9/9)	*Hospital*		
						Health centers	0% (0/7)	*Health centers*	100% (7/7)	*Health centers*	100% (7/7)	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	6% (1/16)	*Total*	87% (14/16)	*Total*	100% (16/16)	*Total*		
	Mozambique		0% (0/7)	Data not reported	0% (0/7)	*Hospitals*	71.43% (5/7)	*Hospitals*	80% (4/5)	*Hospitals*	14% (1/7)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	100% (1/1)	*Others*		
						Total	71.43% (5/7)	*Total*	57% (4/7)	*Total*	25% (2/8)	*Total*		
	Nigeria		0% (0/3)	Data not reported	0% (0/0)	*Hospitals*	100% (3/3)	*Hospitals*	14% (1/7)	*Hospitals*	43% (3/7)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (3/3)	*Total*	14% (1/7)	*Total*	43% (3/7)	*Total*		
	Senegal		0% (0/0)	0% (0/0)	0% (0/8)	*Hospitals*	100% (8/8)	*Hospitals*	0	*Hospitals*	0% (0/14)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (8/8)	*Total*	0%	*Total*	0% (0/5)	*Total*		
	Tanzania		0% (0/6)	0% (0/6)	20% (2/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (10/10)	*Total*	100% (10/10)	*Total*	100% (10/10)	*Total*		
	Uganda		43% (3/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (13/13)	*Total*	100% (13/13)	*Total*	100% (13/13)	*Total*		
AS 3	# of persons trained in AMS topics with MTaPS support	Quarterly	0	436	4721	582		1,035		2,042				
	Bangladesh		0	0	0	*Female*	0	*Female*	60	*Female*	N/A	*Female*		
						Male	0	*Male*	360	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	0	*Total*	420	*Total*		*Total*		
	Burkina Faso		0	0	97	*Female*		*Female*	8	*Female*	N/A	*Female*		
						Male		*Male*	13	*Male*		*Male*		

						Unknown	Data Note Reported	*Unknown*	0	*Unknown*		*Unknown*		
						Total		*Total*	21	*Total*		*Total*		
	Cameroon		0	0	222	*Female*	8	*Female*	0	*Female*	0	*Female*		
						Male	9	*Male*	0	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	17	*Total*	0	*Total*	0	*Total*		
	Côte d'Ivoire		0	0	237	*Female*	0	*Female*	24	*Female*	0	*Female*		
						Male	0	*Male*	39	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	63	*Total*	0	*Total*		
	DRC		0	0	274	*Female*	0	*Female*	21	*Female*	13	*Female*		
						Male	0	*Male*	37	*Male*	20	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	58	*Total*	33	*Total*		
	Ethiopia		0	0	N/A	*Female*	N/A	*Female*	18	*Female*	6	*Female*		
						Male		*Male*	13	*Male*	18	*Male*		
						Unknown		*Unknown*	0	*Unknown*	0	*Unknown*		
						Total		*Total*	31	*Total*	24	*Total*		
	Jordan		0	0	0	*Female*	N/A	*Female*	N/A	*Female*	N/A	*Female*		
						Male		*Male*		*Male*		*Male*		
						Unknown		*Unknown*		*Unknown*		*Unknown*		
						Total		*Total*		*Total*		*Total*		
	Kenya		0	165	1,232	*Female*	103	*Female*	87	*Female*	276	*Female*		
						Male	58	*Male*	50	*Male*	294	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	161	*Total*	137	*Total*	571	*Total*		
	Mali		0	0	136	*Female*	0	*Female*	0	*Female*	N/A	*Female*		
						Male	0	*Male*	0	*Male*		*Male*		
						Unknown	0	*Unknown*	0	*Unknown*		*Unknown*		
						Total	0	*Total*	0	*Total*		*Total*		
	Mozambique		0	0	0	*Female*	3	*Female*	4	*Female*	3	*Female*		
						Male	4	*Male*	5	*Male*	5	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	7	*Total*	9	*Total*	8	*Total*		
	Nigeria		0	0	18	*Female*	10	*Female*	2	*Female*	32	*Female*		
						Male	7	*Male*	21	*Male*	22	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	17	*Total*	23	*Total*	54	*Total*		
	Senegal		0	0	0	*Female*	0	*Female*	0	*Female*	0	*Female*		
						Male	0	*Male*	0	*Male*	0	*Male*		
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*		
						Total	0	*Total*	0	*Total*	0	*Total*		

	Tanzania		0	201	0	*Female*	0	*Female*	N/A	*Female*	N/A	*Female*			
						Male	0	*Male*		*Male*		*Male*			
						Unknown	0	*Unknown*		*Unknown*		*Unknown*			
						Total	0	*Total*		*Total*		*Total*			
	Uganda		0	70	2,513	*Female*	204	*Female*	114	*Female*	564	*Female*			
						Male	176	*Male*	159	*Male*	471	*Male*			
						Unknown	0	*Unknown*	0	*Unknown*	0	*Unknown*			
						Total	380	*Total*	273	*Total*	1,035	*Total*			
AS 4	# and % of MTaPS-supported facilities implementing CQI to improve AMS	Quarterly	49% (24/49)	75% (41/55)	57% (71/124)	61% (74/122)		60% (89/148)		68% (107/156)					
	Bangladesh		0% (0/0)	0% (0/0)	0% (0/2)	*Hospitals*	0% (0/4)	*Hospitals*	25%	*Hospitals*	24% (1/4)	*Hospitals*			
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	0% (0/4)	*Total*	25%	*Total*	24% (1/4)	*Total*			
	Burkina Faso		0% (0/0)	100% (5/5)	25% (3/12)	*Hospitals*	Data Note Reported	*Hospitals*	0	*Hospitals*	N/A	*Hospitals*			
						Health centers		*Health centers*	0	*Health centers*		*Health centers*			
						Others		*Others*	0	*Others*		*Others*			
						Total		*Total*	0	*Total*		*Total*			
	Cameroon		0% (0/0)	0% (0/6)	92% (11/12)	*Hospitals*	100% (12/12)	*Hospitals*	92%	*Hospitals*	100% (12/12)	*Hospitals*			
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	100% (12/12)	*Total*	92%	*Total*	100% (12/12)	*Total*			
	Côte d'Ivoire		0% (0/0)	100% (2/2)	90% (9/10)	*Hospitals*	40% (9/22)	*Hospitals*	45%	*Hospitals*	100% (20/20)	*Hospitals*			
						Health centers	0	*Health centers*	0	*Health centers*	0 (0/2)	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	40% (9/22)	*Total*	45%	*Total*	90% (20/22)	*Total*			
	DRC		0% (0/0)	100% (3/3)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*	100%	*Hospitals*	100% (12/12)	*Hospitals*			
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*			
						Others	0	*Others*	0	*Others*	0	*Others*			
						Total	100% (7/7)	*Total*	100%	*Total*	100% (12/12)	*Total*			
	Kenya		100% (18/18)	100% (18/18)	92% (22/24)	*Hospitals*	100% (20/20)	*Hospitals*	100%	*Hospitals*	100% (20/20)	*Hospitals*			
						Health centers	100% (1/1)	*Health centers*	0	*Health centers*	100% (1/1)	*Health centers*			
						Pharmacy	0% (0/2)	*Pharmacy*	0	*Pharmacy*	0	*Pharmacy*			
						Total	91% (21/23)	*Total*	100%	*Total*	100% (21/21)	*Total*			

	Mali		0% (0/5)	0% (0/5)	13% (2/16)	*Hospital*	11.11% (1/9)	*Hospital*	78%	*Hospital*	100% (9/9)	*Hospital*		
						Health centers	0% (0/7)	*Health centers*	100%	*Health centers*	100% (7/7)	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	6.25% (1/16)	*Total*		*Total*	100%	*Total*		
	Mozambique		0% (0/7)	Data not reported	57% (4/7)	*Hospital*	72% (5/7)	*Hospital*	71%	*Hospital*	14% (1/7)	*Hospital*		
						Health centers	0	*Health centers*	0	*Health centers*	0 (0/0)	*Health centers*		
						Others	0	*Others*	0	*Others*	0% (0/1)	*Others*		
						Total	72% (5/7)	*Total*	71%	*Total*	12% (1/8)	*Total*		
	Nigeria		0% (0/3)	Data not reported	0% (0/3)	*Hospitals*	0% (0/3)	*Hospitals*	14%	*Hospitals*	14% (1/7)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	0%	*Total*	14%	*Total*	14% (1/7)	*Total*		
	Senegal		0% (0/3)	0% (0/3)	0% (0/8)	*Hospitals*	0% (0/8)	*Hospitals*	0	*Hospitals*	0% (0/14)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	0% (0/8)	*Total*	0%	*Total*	0% (0/14)	*Total*		
	Tanzania		0% (0/6)	100% (6/6)	20% (2/10)	*Hospitals*	60% (6/10)	*Hospitals*	60%	*Hospitals*	100% (10/10)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	60% (6/10)	*Total*	60%	*Total*	100% (10/10)	*Total*		
	Uganda		86% (6/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*	100%	*Hospitals*	100% (13/13)	*Hospitals*		
						Health centers	0	*Health centers*	0	*Health centers*	0	*Health centers*		
						Others	0	*Others*	0	*Others*	0	*Others*		
						Total	100% (13/13)	*Total*	100%	*Total*	100% (13/13)	*Total*		
AS 5	#/% of MTaPS-supported facilities that have documented evidence of improvement in antimicrobial medicines prescribing or use	Annually												
	Bangladesh		0%		0% (0/2)				*Hospitals*					
									Total					
	Burkina Faso		0%		0% (0/12)				*Hospitals*					
									Total					
	Cameroon		0%		0% (0/11)				*Hospitals*					
									Total					
	Côte d'Ivoire		0%		0% (0/10)				*Hospitals*					

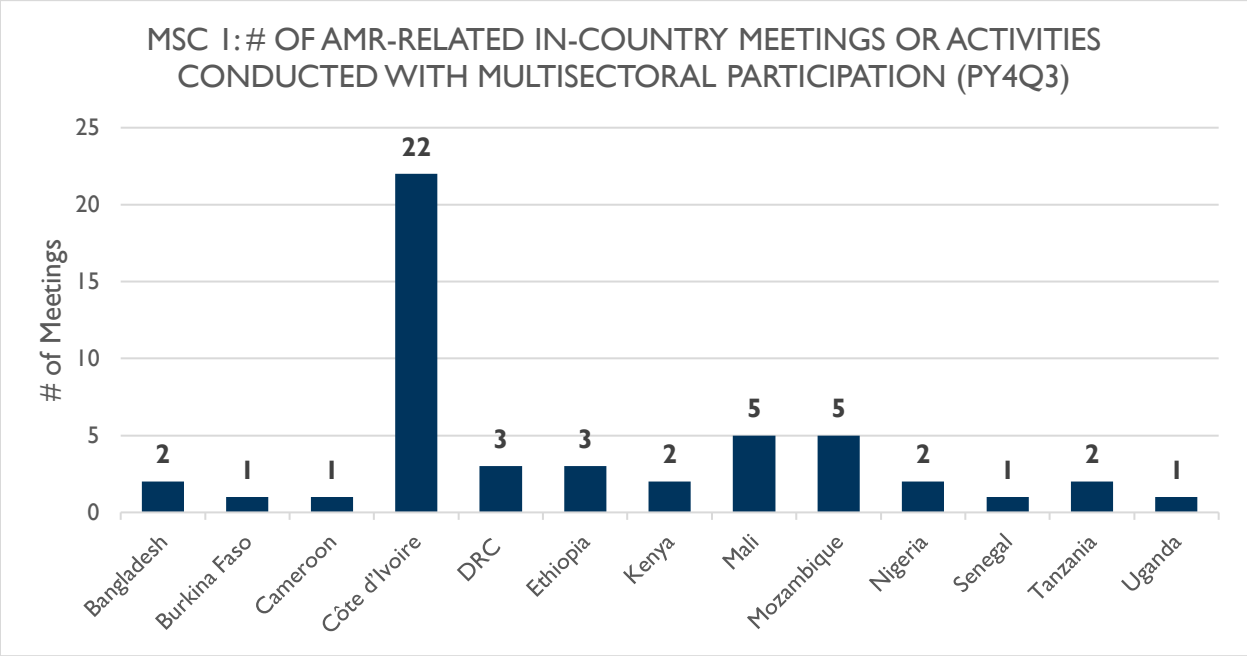
						Total				
	DRC		0%		0% (0/7)	*Hospitals*				
						Total				
	Kenya		0%		92% (22/24)	*Hospitals*				
						Health centers				
						Total				
	Mali		0%		13% (2/16)	*Hospital*				
						Health centers				
						Total				
	Mozambique		0%		57% (4/7)	*Hospitals*				
						Total				
	Nigeria		0%		0% (0/3)	*Hospitals*				
						Total				
	Senegal		0%		10	*Hospitals*				
						Total				
	Tanzania		0%		60% (6/10)	*Hospitals*				
						Total				
	Uganda		0%		0% (0/7)	*Hospitals*				
						Total				
DRC 1	# of quality assured MNCH, RH/FP, and TB medicines products registered with MTaPS support	Semi-annually	0	0	29	23				
DRC 4	% of facilities implementing appropriate storage of oxytocin	Quarterly				69.44% (50/72)	75% (54/72)	75% (54/72)		
	DRC					69.44% (50/72)	75% (54/72)	76% (54/72)		
DRC 5	# of DPS and/or IPS using the updated directory of registered medicines	Semi-annually	0	0	7	4				
DRC 8	# of health zones involved in provincial quantification exercises with MTaPS support	Semi-annually	0	0	19	10				
DRC 9	# of MNCH treatment protocols or job aids disseminated to HFs with MTaPS support	Semi-annually	0	0	0	0				
DRC 10	# of contraceptive kits (reduced FP package) distributed	Semi-annually	0	0	0	0				

	to community care sites (CSS) in MTaPS-supported HZs							
DRC 11	% of CSS reporting contraceptive data to health facilities in MTAPS-supported HZs	Semi-annually	0%	0	0% (0/12)	0		
DRC 12	# of mini awareness raising campaigns for active detection of TB and adherence to TB treatment supported by MTaPS	Semi-annually	0	0	0	2		
BG 1	% of procurement packages of DGFP and DGHS that are on schedule	Annually	0	0	82%			
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			

ANNEX 2: GLOBAL HEALTH SECURITY AGENDA – QUARTER PROGRESS FOR FY22Q3

SUMMARY OF ACTIVITIES FOR THIS QUARTER (FY22Q3)

SELECTED MTAPS GHSA INDICATOR PROGRESS



Annex Figure 1. MSC1. # of AMR-related in-country meetings or activities conducted with multisectoral participation in PY4Q3

Annex Table 2.1 IP3: % of MTaPS-supported facilities that are using standardized tools for monitoring IPC and informing programmatic improvement

	Country											
Quarter	Bangladesh	Cameroon	Côte d'Ivoire	DRC	Ethiopia	Kenya	Mali	Mozambique	Nigeria**	Senegal	Tanzania	Uganda
PY3Q4	100% (2/2)	100% (12/12)	100% (12/12)	100% (7/7)	-*	100% (20/20)	100% (16/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)
PY4Q1	50% (2/4)	100% (12/12)	73% (16/22)	100% (7/7)	-*	100% (20/20)	100% (16/16)	100% (7/7)	0% (0/3)	57% (8/14)	100% (10/10)	100% (13/13)
PY4Q2	50% (2/4)	100% (12/12)	100% (22/22)	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% (22/22)	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)

*In Q2, facilities have been selected but work has not been started as the workplan is not yet approved.
** One facility IPC team started the implementation of its work plan following the completion of capacity training for its IPC team in PY4 Q1. 6 supported facilities are currently undergoing capacity training for members of the IPC teams.
*** Five facilities added in PY4 Q3.
**** In PY4 Q3, one facility was removed.
^ In PY4 Q3, a new IPC coordinator was hired and could only support 3 health facilities in IPC.

Annex Table 2.2. IP5. % of MTaPS-supported facilities implementing continuous quality improvement (CQI) to improve IPC

	Country											
Quarter	Bangladesh	Cameroon	Côte d'Ivoire	DRC	Ethiopia	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY4Q4	100% (2/2)	100% (12/12)	100% (12/12)	100% (7/7)	-*	100% (20/20)	94% (15/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)
PY4Q1	50% (2/4)	100% (12/12)	55% (12/22)	100% (7/7)	-*	100% (20/20)	94% (15/16)	100% (7/7)	0% (0/3)	57% (8/14)	100% (10/10)	100% (13/13)
PY4Q2	50% (2/4)	100% (12/12)	100% (22/22)	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% (22/22)	100% (12/12)***	0% (0/5)	100% (20/20)	100% (16/16)	100% (3/3)^	28% (2/7)	61% (8/13)****	100% (10/10)	100% (13/13)

*In Q2, facilities have been selected but work has not been started as the workplan is not yet approved.
** Facility commenced the use of CQI approach for testing an intervention in line with the facility IPC work plan.
*** Five facilities added in PY4 Q3.
**** In PY4 Q3, one facility was removed.
^ In PY4 Q3, a new IPC coordinator was hired and could only support 3 health facilities in IPC.

Annex Table 2.3. IP6. % of MTaPS-supported facilities with functional IPC committees

	Country											
Quarter	Bangladesh	Cameroon	Côte d'Ivoire	DRC	Ethiopia	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q4	100% (2/2)	100% (12/12)	100% (12/12)	100% (7/7)	-*	92% (18/20)	75% (12/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)
PY4Q1	50% (2/4)	100% (12/12)	73% (16/22)	100% (7/7)	-*	100% (20/20)	88% (14/16)	100% (7/7)	33% (1/3)	57% (8/14)	100% (10/10)	100% (13/13)
PY4Q2	50% (2/4)	100% (12/12)	100% (22/22)	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% (22/22)	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)

*Facilities have been selected but work has not been started as Ethiopia workplan is not yet approved.
** IPC committee at supported facility held a meeting in Q1 to inaugurate the committee and a second meeting in Q2 to review the facility IPC work plan developed by the IPC team.
*** Five facilities added in PY4 Q3.
**** In PY4 Q3, one facility was removed.
^ In PY4 Q3, a new IPC coordinator was hired and could only support 3 health facilities in IPC.

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	Burkina Faso*	Cameroon	Côte d'Ivoire	DRC	Ethiopia	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q4	0% (0/2)	25% (3/12)	92% (11/12)	75% (9/12)	100% (7/7)	-**	83% (20/24)	19% (3/16)	57% (4/7)	0% (0/3)	0% (0/8)	60% (6/10)	20% (2/10)
PY4Q1	25% (1/4)	0% (0/10)	100% (12/12)	40% (9/22)	100% (7/7)	-**	91% (21/23)***	19% (3/16)	71% (5/7)	100% (3/3)	0% (0/14)	100% (10/10)	100% (13/13)
PY4Q2	50% (2/4)	0% (0/10)	92% (11/12)	45% (10/22)	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)	90% (20/22)	100% (12/12)^	0% (0/5)	91% (21/23)	100% (16/16)	28% (2/7)	43% (3/7)	0% (0/14)	100% (10/10)	100% (13/13)

*Two facilities dropped at the start of PY4Q2. MTaPS Burkina Faso has harmonized action plans for all hospitals. Indicator related activities began in Q3 however there are not yet outcomes to be reported.
**Facilities have been selected but work has not been started as Ethiopia workplan is not yet approved.
***One facility dropped out at the beginning of PY4, hence the denominator changed from 24 to 23.
****At the start of PY4 Q2 two facilities were dropped, and six new facilities were added in PY4 Q2.
^Five facilities added in PY4 Q3.

Annex Table 2.5. AS4. % of MTaPS-supported facilities implementing CQI to improve AMS

	Country												
Quarter	Bangladesh	Burkina Faso*	Cameroon	Côte d'Ivoire	DRC	Ethiopia	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q4	0% (0/2)	25% (3/12)	92% (11/12)	90% (9/10)	100% (7/7)	-***	92% (22/24)	19% (3/16)	57% (4/7)	0% (0/3)	0% (0/8)	60% (6/10)	100% (13/13)
PY4Q1	0% (0/4)	-**	100% (12/12)	40% (9/22)	100% (7/7)	-***	91% (21/23) ****	19% (3/16)	71% (5/7)	0% (0/3)	0% (0/14)	100% (10/10)	100% (13/13)
PY4Q2	25% (1/4)	0% (0/10)	92% (11/12)	45% (10/22)	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	25% (1/4)	0% (0/10)	100% (12/12)	91% (20/22)	100% (12/12)^	0% (0/5)	91% (21/23)	100% (16/16)	14% (1/7)	14%(1/7)	0% (0/14)	100% (10/10)	100% (13/13)

* Two facilities dropped at the start of PY4Q2. MTaPS Burkina Faso has harmonized action plans for all hospitals. Indicator related activities began in Q3 however there are not yet outcomes to be reported.
**Data is not yet available for this quarter.
***Facilities have been selected but work has not been started as Ethiopia workplan is not yet approved.
****One facility dropped out at the beginning of PY4, hence the denominator changed from 24 to 23.
*****At the start of PY4 Q2 two facilities were dropped, and six new facilities were added in PY4 Q2.
^Five facilities added in PY4 Q3.

Annex Table 2.6. Progress on IPC (P.3.3): achieved cumulatively with MTaPS' support (as of June 2022)

Benchmarks actions completed/supported	Country													
	BD	BF	CM	CI	CD	ET	JO	KE	ML	MZ	NG	SN	TZ	UG
Baseline JEE scores														
	2	1	1	1	1		2	3	2	3	2	3	3	3
Achieved* cumulatively from the beginning of MTaPS to March 2022**														
Limited Capacity – 02 (5 actions)	60%	N/A	80%	100%	60%	80%	0%	80%	100%	80%	60%	80%	80%	80%
Developed Capacity – 03 (6 actions)	67%	N/A	67%	83%	67%	83%	0%	83%	83%	67%	33%	83%	100%	83%
Demonstrated Capacity – 04 (5 actions)	20%	N/A	20%	40%	20%	0%	0%	60%	40%	0%	0%	20%	100%	60%
Sustainable Capacity – 05 (5 actions)	0%	N/A	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	100%	40%

* Some benchmark actions were partially achieved as they are a compound of two or more separate components.
** Some actions are ongoing.

Table 2.7. Progress on AMS (P.3.4): achieved cumulatively with MTaPS' support (as of June 2022)

Benchmarks actions completed/ supported	Country													
	BD	BF	CM	CI	CD	ET	JO	KE	ML	MZ	NG	SN	TZ	UG
Baseline JEE scores														
	2	1	1	1	1		2	3	2	1	2	3	3	3
Achieved* cumulatively from the beginning of MTaPS to June 2022**														
Limited Capacity – 02 (4 actions)	25%	75%	50%	100%	100%	25%	0%	75%	75%	75%	50%	75%	75%	50%
Developed Capacity – 03 (6 actions)	33%	83%	17%	67%	50%	50%	0%	67%	50%	17%	33%	17%	50%	67%
Demonstrated Capacity – 04 (7 actions)	0%	43%	0%	14%	29%	14%	0%	14%	0%	0%	0%	0%	14%	43%
Sustainable Capacity – 05 (7 actions)	0%	0%	0%	0%	0%	0%	0%	14%	0%	0%	0%	0%	0%	14%

* 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 3, YEAR 4

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	April – June 2022
	Bangladesh	0
	Burkina Faso	90
	Cameroon	0
	Côte d'Ivoire	109
	Kenya	203
	Mali	43
	Mozambique	0
	Philippines	105
	Rwanda	0
	Senegal	120
	Tanzania	0
	Total	**670**
Sex	Male	316
	Female	354
	Unknown sex	0
Technical area	Storage, handling, delivery, and waste management of COVID-19 vaccines	148
	Planning and organizing COVID-19 vaccination sessions	137
	AEFI monitoring for COVID-19 vaccination	90
	Recording and monitoring COVID-19 vaccination	295
	Communication with the community about COVID-19 vaccination	0

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	April – June 2022
	Bangladesh	0
	Burkina Faso	0
	Côte d'Ivoire	0
	Kenya	0
	Mali	0
	Mozambique	0
	Philippines	1
	Rwanda	0
	Senegal	0
	Total	**1**

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	April – June 2022
	Bangladesh	0
	Cameroon	5
	Côte d'Ivoire	0
	Kenya	0
	Mali	23
	Senegal	394
	Tanzania	12
	Total	**434**

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	April – June 2022
	Bangladesh	108
	Cameroon	214
	Côte d'Ivoire	0
	Kenya	184
	Mali	0
	Senegal	0
	Tanzania	64
	Total	**570**
Sex	Male	345
	Female	225
	Unknown sex	0
Trainee Category	HCW	431
	Non-HCW	139

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	April – June 2022
	Bangladesh	0
	Burkina Faso	0
	Cameroon	0
	Côte d'Ivoire	2
	Kenya	5
	Mali	0
	Mozambique	0
	Philippines	0
	Rwanda	0
	Senegal	0
	Tanzania	0
	Total	**7**
Technical area	Risk communication and community engagement	0
	Surveillance, rapid response teams, case investigation	0
	Points of entry	0
	Laboratory systems	0
	Case management	0
	Infection prevention and control	0
	Coordination and operations	6
	Vaccine introduction (incl., PV)	1

Annex Table 3.6. Number of adverse events following immunization (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	April – June 2022
	Bangladesh	1,050
	Côte d'Ivoire	0
	Jordan	0
	Kenya	32
	Mali	3
	Mozambique	0
	Rwanda	0
	Senegal	0
Total		**1,085**
USG Support	Direct support	1,050
	Indirect support	35
Severity of event*	Minor	1,053
	Moderate	0
	Serious/severe**	0

*Severity of event data are not available for Kenya.

**Serious/severe events in Bangladesh are only reviewed by the governmental COVID committee.

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	April – June 2022
	Bangladesh	0
	Côte d'Ivoire	0
	Kenya	1
	Mali	0
	Mozambique	0
	Rwanda	0
	Senegal	0
Total		**1**
Technical area	Establishing surveillance systems	1
	Monitoring and responding to AEFIs	0
	Monitoring and responding to adverse events 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	April – June 2022
Bangladesh	No
Burkina Faso	Yes
Côte d'Ivoire	Yes
Kenya	Yes
Senegal	Yes

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	April – June 2022
Bangladesh	Yes
Côte d'Ivoire	No
Kenya	Yes
Mali	No
Mozambique	No
Rwanda	No
Senegal	Yes

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	April – June 2022
Côte d'Ivoire	Yes
Kenya	N/A
Senegal	Yes

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	April – June 2022
Côte d'Ivoire	No
Kenya	N/A
Philippines	No
Senegal	No

Annex Table 3.12. Percent of MTaPS-support health facilities in compliance with IPC COVID-19 guidelines/standard operating procedures (COV 12)

Country	April – June 2022
Côte d'Ivoire	42%
Kenya	58%

Annex Table 3.13. Number of COVID-19 vaccines safety surveillance reports produced under MTaPS support (JO7)

Country	April – June 2022
Jordan	2

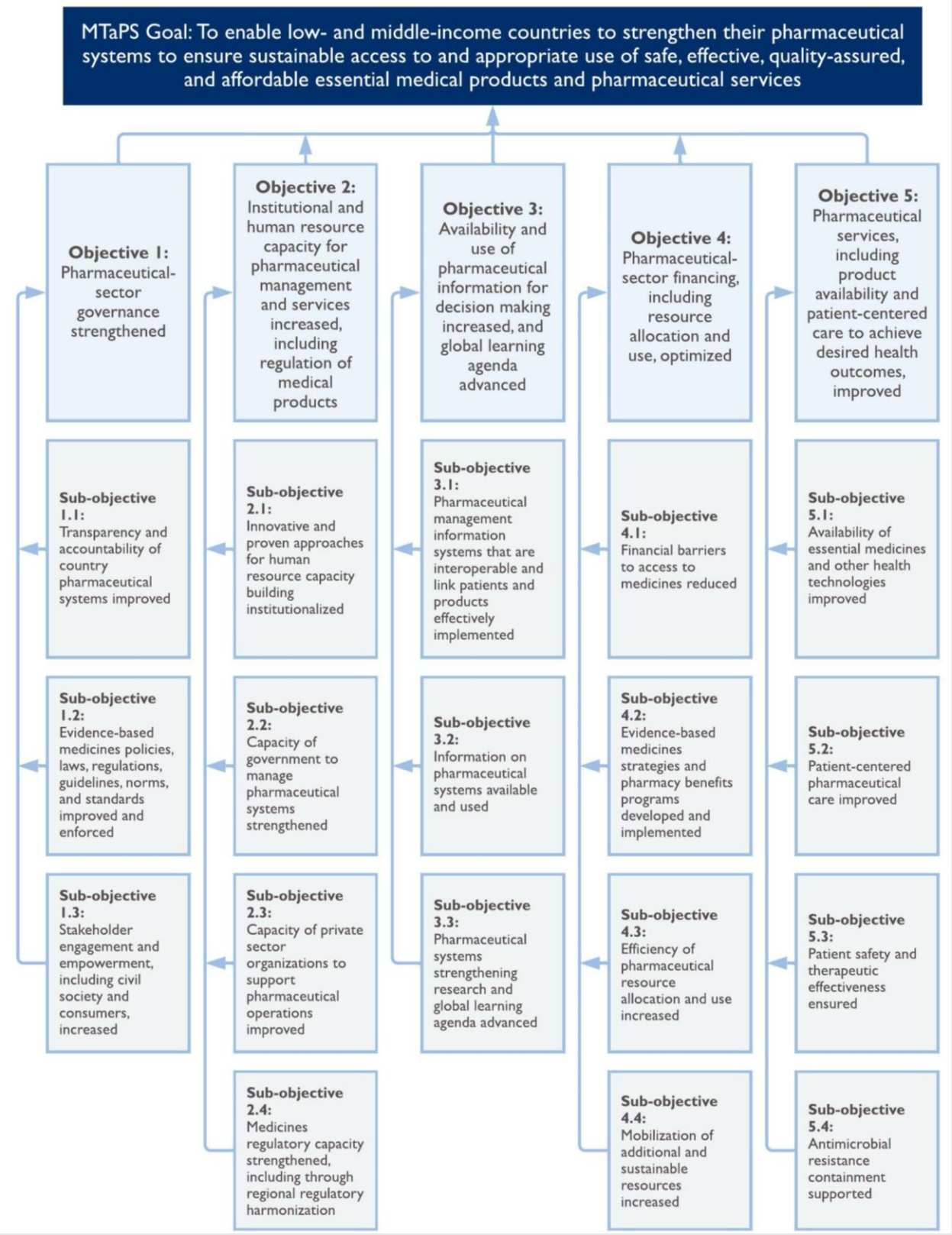
Annex Table 3.14. Number of health workers who are remunerated by MTaPS to support workload required for COVID-19 vaccine delivery in the reporting period (COV 14 (CV.1.3-4))

Portfolio/ Disaggregation	Country	April – June 2022
	Cameroon	0
	Côte d'Ivoire	405
	Total	**405**
Cadre	Clinical	0
	Community/Law	179
	Data Management	113
	Supervision and Logistics	113

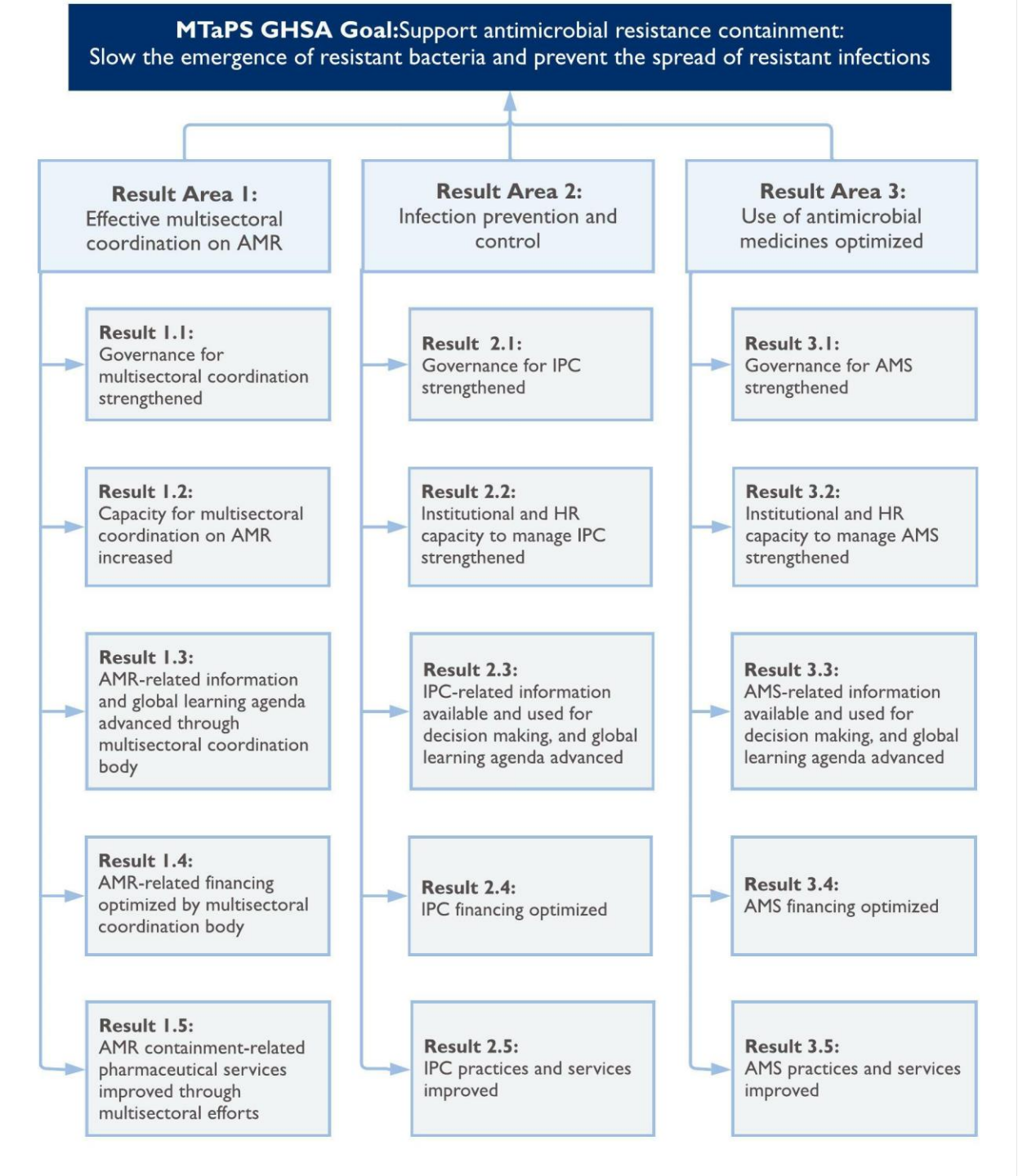
Annex Table 3.15. Number of vaccination sites supported by MTaPS during the reporting period (COV 15 (CV.1.4-5))

Portfolio/ Disaggregation	Country	April – June 2022
	Cameroon	0
	Côte d'Ivoire	2,294
	Senegal	0
	Total	**2,294**
Type	Fixed site	2,294
	Community-based outreach vaccination sites	0
	Mobile team (or clinic) or transit team strategy	0
	Mass vaccination sites/campaigns	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