

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

Improved Access. Improved Services. Better Health Outcomes.



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FISCAL YEAR 2022 ANNUAL & QUARTER 4 (JULY – SEPTEMBER 2022) REPORT



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(JULY – SEPTEMBER 2022) REPORT**

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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, Celsius Consulting, Deloitte USA, Duke-National University of Singapore, El Instituto de Evaluacion Tecnologica en Salud, IC Consultants, MedSource, IQVIA, University of Washington
	Capacity Resource Partners:	African Health Economics and Policy Association, Ecumenical Pharmaceutical Network, U3 SystemsWork, University of Ibadan, African Collaborating Centre for Pharmacovigilance and Surveillance, Kilimanjaro School of Pharmacy, Muhimbili University, Pharmaceutical Systems Africa
	Collaborators:	International Pharmaceutical Federation, Howard University, University of Notre Dame, WHO, World Bank

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ACRONYMS AND ABBREVIATIONS

3HP	once-weekly dose of isoniazid and rifapentine for 12 weeks
4PL	fourth-party logistics provider
AACAHB	Addis Ababa City Administration Health Bureau (Ethiopia)
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	<i>Autoridade Nacional Reguladora de Medicamentos, Instituto Público</i> [National Medicines Regulatory Authority, Public Institute] (Mozambique)
ANEH	National Hospital Evaluation Agency (Mali)
ARV	antiretroviral
ARVs	antiretroviral medicines
ASEAN	Association of Southeast Asian Nations
ASM	active safety monitoring
ASO	AMS optimal access and use
ASRAMES	<i>Association Régionale d'Approvisionnement en Médicaments Essentiels</i>
AUDA-NEPAD	African Union Development Agency's New Partnership for Africa's Development
AWaRe	Access, Watch, and Reserve
BCZ/S	<i>Bureau central de la zone/de santé</i> (DRC)
BSC	balanced scorecard
BI	Business Intelligence (Microsoft Power BI)
CAPA	corrective and preventive action
CASIC	County Antimicrobial Stewardship Interagency Committee (Kenya)
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)
CHD	Center for Health Development (Philippines)
CIPCAC	County Infection Prevention and Control Advisory Committee
CME	continuous medical education
CMSD	Central Medical Store Depot (Bangladesh)
CODESA	health area development committee
COE	center of excellence
COI	conflict of interest
COR	contracting officer representative
COVID-19	coronavirus disease 2019
COVDP	COVID-19 Vaccine Delivery Partnership
CPD	continuing professional development
CQI	continuous quality improvement
CSD	Clinical Services Directorate (Ethiopia); Code on Sale and Distribution (Nepal)
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)
DGAP	<i>Direction Générale de l'Accès aux Produits Pharmaceutiques</i> (Burkina Faso)
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
DIPUR	<i>Direction de l'Information Pharmaceutique et de l'Usage Rationnel</i> (Burkina Faso)
DIS	Development Information Solution (USAID)
DLMA	<i>Direction de Lutte contre les Maladies Animales</i> (DRC)
DMHP	Directorate of Hospital and Proximity Medicine (Côte d'Ivoire)
DNAM	<i>Direcção Nacional de Assistência médica</i> [National Directorate of Medical Assistance] (Mozambique)
DNF	National Directorate of Pharmacy (Mozambique)
DOH	Department of Health (Philippines)

DOHS	Department of Health Services (Nepal)
DPH	Direction de la Pharmacie Hospitalière (Burkina Faso)
DPCB	Disease Prevention and Control Bureau (Philippines)
DPM	Directorate of Pharmacy and Medicine (Mali and DRC)
DPML	Directorate of Pharmacy, Medicines, and Laboratories (Cameroon)
DPS	<i>Division Provinciale de la Santé</i> [Provincial Health Division] (DRC)
DQA	data quality assurance/audit
DQSHH	Directorate for Quality, Security, and Hospital Hygiene (Senegal)
DRC	Democratic Republic of the Congo
DR-TB	drug-resistant TB
DSFGS/D10	<i>Direction de la Santé de la Famille et de Groupes Spécifiques</i> [Directorate of Family Health and Specific Groups] (DRC)
DTC	drug and therapeutics committee
DTG	dolutegravir
EAA	Ethiopian Agriculture Authority
EAC	East African Community
EAMS	electronic asset management system
ECHO	Extension for Community Healthcare Outcomes (Tanzania)
ECOWAS	Economic Community of West African States
EEPA	Ethiopian Environmental Protection Authority
EHSTG	Ethiopian Hospital Services Transformation Guidelines
eLMIS	electronic logistics management information system
EML	essential medicines list
EPA	Ethiopian Pharmaceutical Association
e-SPAR	Electronic State Parties Self-Assessment Annual Reporting Tool
ERC	ethics research committee
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
GPD	government procurement department
GPP	good pharmacy practices
GRP	good regulatory practice
GSDP	good storage and distribution practices
GWG	gender working group
HA	health area/account
HAI	health care–associated infection (sometimes HCAI)
HCAC	Health Care Accreditation Council
HCAD	Health Communication and Awareness Directorate
HCAI	health care–associated infection (sometimes HAI)
HCNSSM/OH	<i>Haut Conseil National de Sécurité Sanitaire “One Health” (Sénégal)</i>
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
HTA	health technology assessment
HTP	health technology product
HWDP	health workforce development plan
HZ	health zone
ICC	Infection Prevention and Control Committee
iCCM	integrated community case management
ICU	intensive care unit

IDDS	Infectious Disease Detection and Surveillance
IEC	Information, education, and communication
IFRC	International Federation of Red Cross
IGAD	Intergovernmental Authority on Development
IHR	International Health Regulations
IMS	information management system
IMS	Ebola incident management structure (Senegal)
InaHTAC	Indonesia HTA Committee
INH	isoniazid
INRB	<i>Institut National de Recherche Biomédicale</i>
IP	implementing partner
IPC	infection prevention and control
IPC-FLAT	facility-level IPC assessment tool (Ethiopia)
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
IRR	implementing rules and regulations
ISO	International Organization for Standardization
ISPOR	International Society for Pharmacoeconomics and Outcomes Research
IVD	in vitro diagnostic
JEE	Joint External Evaluation
JLN	Joint Learning Network
KAP	knowledge, attitudes, and practices
KI	key informant
KII	key informant interview
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
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
MDRO	multidrug-resistant organisms
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
MOA	Ministry of Agriculture (Ethiopia)
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
MSC	multisectoral coordination
MSC-AMR	multisectoral coordination on AMR
MSH	Management Sciences for Health
MSR	medical and surgical requisites
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)
NCDC	Nigeria Center for Disease Control
NCDC	National Curriculum Development Center (Uganda)
NDA	National Drug Authority (Uganda)

NDRA	National Drug Regulatory Authority (Burkina Faso)
NEML	national essential medicines list
NGO	nongovernmental organization
NMP	national medicines policy
NMRA	national medicines regulatory authority
NPC	National Pharmacy Council (Rwanda)
NPVC	National Pharmacovigilance and COVID-19 Vaccines Adverse Events Monitoring Committee (Jordan)
NRA	national regulatory authority
NSP	national strategic plan
NTC	National Technical Committee (Bangladesh)
NTP	National Tuberculosis Control Program (Bangladesh)
NVPMC	National Vaccine Procurement Modernization Committee (Jordan)
OCC	Congolese Control Office
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
PCR	polymerase chain reaction
PD	Pharmaceutical Division/Department (Philippines)
PE	pharmaceutical expenditure
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)
PNPLZER	National Zoonosis Control Program (Cameroon)
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
PQM+	Promoting the Quality of Medicines Plus

PrEP	pre-exposure prophylaxis
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
QI	quality improvement
QIS	Quality Improvement Secretariat (Bangladesh)
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 Services (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
TB	tuberculosis
TLD	dolutegravir-based tenofovir + lamivudine + dolutegravir
TMDA	Tanzania Medicines and Medical Devices Authority
TOE	table of organization and equipment
TOR	terms of reference
TOT	training of trainers
TPT	TB preventive treatment
TrACSS	Tripartite AMR Country Self-Assessment Survey (Cote d'Ivoire and DRC)
TS	technical secretariat
TTC	technical thematic committee
TWC	technical working committee
TWG	technical working group
UAT	user acceptance testing
UHC	universal health coverage
UNCST	Uganda National Council for Science and Technology
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's 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

I. 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

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.

USAID Pharmaceutical System Strengthening Approach

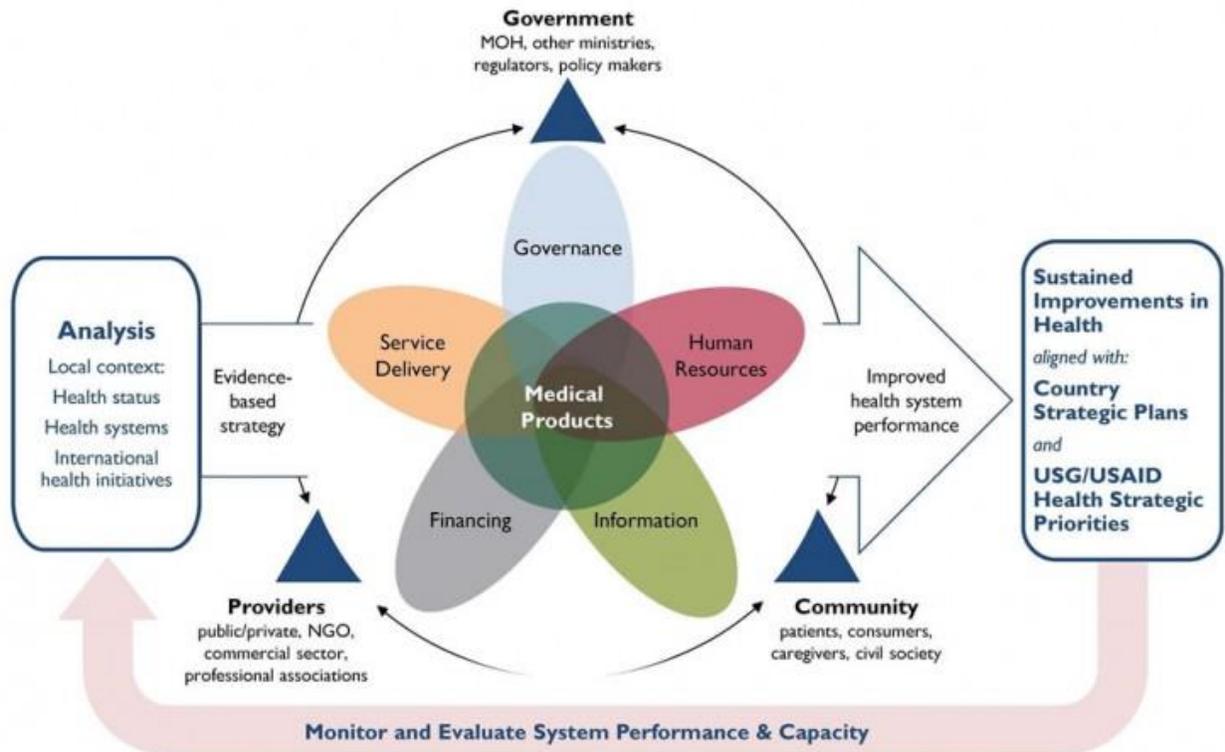


Figure 1. USAID pharmaceutical systems strengthening approach

D. ABOUT THIS REPORT

This report presents progress and achievements by portfolio for fiscal year 2022 annual and quarter 4 (July –September 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

OVERVIEW

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.

CUMULATIVE PERFORMANCE TO DATE

Improvements to areas of governance in pharmaceutical systems takes time. Since the beginning of MTAps the need for effective governance has been a priority across MTAps countries with governance activities particularly active in Bangladesh, Nepal, Jordan, the Philippines, and Rwanda. With the conclusion of PY4, improvements in pharmaceutical governance systems have become clearer to see. The journeys of Nepal, the Philippines, and Rwanda are presented here as examples of how MTAps has applied itself to improving pharmaceutical governance, and how multiple cross-cutting interventions in the area of pharmaceutical governance have yielded results:

Nepal: A suite of updated and new policies, acts, regulations, norms, and standards has reached advanced stages for approval by the Government of Nepal. The progress was a result of MTAps' continued collaborative and advocacy work with DDA; MOHP senior management; partners; representatives of the Ministry of Law, Justice, and Parliamentary Affairs; and others. After months of an intensive consultative process, the updated NMP and revised Drug Act—with relevant codes, guidelines, and regulations—were finalized. The Code on Sale and Distribution (CSD), including GPP and GSDP practices and implementation strategies, is awaiting approval by the Drug Advisory Committee.

Guidelines and SOPs for the registration of medicines and HTPs were updated. All of them are awaiting agency and/or parliamentary approval and implementation. These policy, legislative, and regulatory building blocks will enable DDA to undertake new roles and responsibilities and bring the agency in line with WHO standards and best regulatory practices for assuring the safety, quality, and efficacy of medicines and medical products in the country.

Philippines: MTaPS conducted a rapid diagnostic of the PSCM systems in the Philippines and supported DOH to develop a three-year strategy with key interventions. MTaPS analyzed the draft UHC IRR and suggested addition of relevant articles to ensure legal support for supply chain reforms at central and LGU levels into the IRR. MTaPS supported DOH in designing and developing a PSCM road map for the central, regional, and local government levels in support of the UHC law implementation. MTaPS has been assisting DOH in developing a PSCM reform plan and institutionalizing a fully functional PSCM governance mechanism with clear delineation of roles among different units of the DOH central office, CHDs, and LGUs to strengthen the PSCM systems for UHC implementation.

Rwanda: During PYs 2 to 4, MTaPS supported Rwanda FDA to develop a four-year Strategic Plan (2021–2024) that was approved in PY3 followed by a five-year business plan and financial sustainability strategy (2021-2026) to guide Rwanda FDA to become a financially sustainable world class regulatory authority. MTaPS also supported the development of four regulations, and other pharmaceutical-sector regulatory documents (e.g., guidelines, manuals, SOPs). As part of the QMS implementation at the Rwanda FDA based on ISO 9001:2015 requirements, in May 2021, the Authority’s board approved a quality manual and corresponding SOPs developed with technical support by MTaPS.

YEAR 4 ACHIEVEMENTS & RESULTS

Strengthening pharmaceutical-sector governance in countries is progressive and as we reflect on year 4 of MTaPS the following three examples highlight results of persistent work:

Bangladesh: With MTaPS’ support, the practices for the approval process of procurement plans and tender evaluations by the MOHFW and DGHS (i.e., the oversight bodies) were successfully decentralized to the procuring entities in alignment with the required procedures. It has significantly contributed to the reduction of the overall procurement process lead time.

Nepal: MTaPS continued making progress on finalizing and fostering the approval process of several key policies, legislative and regulatory documents that strengthen the maturity level of the DDA and align DDA functions with WHO best practices. The Drug Act, the regulation on HTP, clinical trials, and pharmacovigilance (PV), as well as the CSD, and guidelines on good GPP and GSDP, were prepared and are awaiting approval. Regulating medicines prices is important for the country to reach UHC, ensure equity and affordability, and reduce out-of-pocket expenditures. Approval and implementation of the mentioned documents will mean that the DDA, after many years of outdated legal provisions, tools, and mandates, has taken critical steps towards functioning as an effective national pharmaceutical regulatory authority.

Conflict of Interest (COI) Manual available: Conflict of interest is a significant issue in the governance of pharmaceutical systems, affecting not only the quality of medicines that are delivered, but also the health system itself. During this past year WHO, in collaboration with MTaPS, finalized a new practically based manual for public pharmaceutical-sector committees in low- and middle-income countries. The manual highlights the ten key steps for improving conflict of interest policy, prevention, and management in public pharmaceutical decision-making committees. MTaPS has begun to engage with countries to use the guidance to address COI workplace issues.

QUARTER 4 ACHIEVEMENTS & RESULTS

During Q4, the following activities highlight MTaPS' continued focus on pharmaceutical governance under the following sub-objectives:

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

Jordan: Improved the monitoring of fair competition in medicine and vaccine procurement

MTaPS engaged the Competition Directorate of the Ministry of Industry and Trade and, in collaboration with the GPD, developed the “fair competition practices.” Corresponding training material was integrated into the existing training curriculum with the Competition Directorate co-facilitating the delivery of the training. This marks the first ever collaboration between the GPD and the Competition Directorate.

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

Jordan: Developed implementation guideline for the procurement framework agreement

The general FAIG was developed and finalized with the GPD. Corresponding training material was developed based on this guideline and integrated into the existing government training curriculum. To further institutionalize the implementation of FAs, the GPD will use the guideline and the training material to orient new employees.

Developed instructions for procurement negotiation

With GPD's direct technical engagement, the document, “Instructions for Procurement Negotiations within the criteria outlined by the Government Procurement Bylaw,” was developed and finalized by MTaPS. The instructions are part of the training curriculum to further strengthen local capacities for more competitive procurement of pharmaceuticals, including vaccines.

Supported legislative reform to facilitate market entry and increase the number of suppliers competing for pharmaceutical tenders

A third technical document in support of improving the availability of vaccines is the assessment report on the procurement of WHO-prequalified pharmaceuticals, including vaccines. The document, developed by collaboration between MTaPS and GPD, outlines two potential scenarios to facilitate market entry of prequalified vaccines. MTaPS held three technical discussions with the WHO legal officer to coordinate, strategize, and prepare for the NVPMC technical workshop, which will take place in the next quarter.

Nepal: Updated regulations, rules, and guidelines

The Director General (DG) of DDA and MTaPS met with MOHP and WHO to advocate for finalization of the new Drug and Health Product Act, which covers drugs and HTP, cosmetics, and nutraceuticals. The Act was discussed with a Ministry of Law, Justice, and Parliamentary Affairs representative; MOHP legal section chief; chief of National Medicines Laboratory; DDA legal officer; and DDA senior officers and is awaiting government approval. The DG DDA has put the revised CSD up for approval at the next Drug Evaluation Committee meeting. The DDA and MTaPS started drafting the Drug and Health

Product Regulation and the Drug Standard Regulation. Updated policies and regulatory documents will ensure the legal framework for DDA to execute its key functions effectively in a sustainable manner.

Revised and updated the Nepal national medicines policy

MTaPS—in close collaboration with the Drug Policy Steering Committee, DDA management, NMP TWG, WHO, and other stakeholders—finalized medicine Policy Options Analysis and updated the 1995 NMP. In September 2022, both documents were presented and reviewed at a high-level NMP workshop with over 70 policymakers and national stakeholders organized by the MOHP in partnership with MTaPS. After the November 2022 election, the policy will be forwarded by the MOHP to the cabinet secretary for approval.

Philippines: MTaPS supported DOH to incorporate the PSCM reforms needed to address the foundational elements of the PSCM roadmap for UHC into the DOH's Devolution Transition Plan. To help professionalize the PSCM and PV workforce, MTaPS supported DOH in updating the PSCM workforce development plan

PV Governance: MTaPS conducted an orientation workshop attended by 31 (6 male, 25 female) FDA leadership and officers from the national and regional levels to review PV best practices and to collaboratively update the national policy on PV. This updated national policy outlines the roles and responsibilities at the central, regional, and local levels in monitoring the safety of medicines for all patients. Incorporated in the national policy are the updated TOR of the national PV advisory committee. Moreover, as novel treatment regimens are emerging, MTaPS and FDA developed PV methods guidelines to help public health programs determine which PV method is applicable to implement per commodity. PV is an integral part of the health care system and essential for improving patient care and overall public health.

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

Jordan: Enabled legislative and regulatory reform for vaccine procurement

MTaPS led the coordination of NVPMP activities and provided technical support in addressing its priorities. Building on the successful legislative reform from FY21, MTaPS developed key guidelines, technical papers, and a comprehensive procurement training curriculum as described below. MTaPS prioritizes the following technical areas with stakeholders: procurement of WHO pre-qualified vaccines according to current legislation; application of the Pharmacy and Drug Law in relation to procurement of vaccines; and implementation of FAs in vaccine procurement, including government direct international procurement and procurement through UNICEF. These activities are expected to contribute to increasing the availability of quality assured vaccines to the population.

Nepal: Assisted in improving the knowledge and capacity of the DDA staff

The report on competency mapping and the associated training plan were finalized and disseminated to DDA, WHO, and PQM+ through a joint meeting on September 1, 2022. MTaPS shared the reports on training of DDA staff in areas identified in the competency mapping and conducted a five-day training on the vaccine dossier evaluation and the one-day workshop on the convergence of technical standards and guidelines on medical product registration. Implementation of the DDA training plan will be continued in

the next fiscal year. Improving the knowledge and capacity of DDA staff is a key factor to increasing the maturity level of the regulatory agency.

BEST PRACTICES/LESSONS LEARNED

- Updating and improving pharmaceutical systems legislation and policies takes regular and ongoing interaction with stakeholders for results to be realized.
- For pharmaceutical legislation and policies to be effective, engaging with government, private sector, civil society, and IPs is critical to success.

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

OVERVIEW

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 PY5, MTAps is taking a sharper focus on sustainability aspects as they relate to 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.

Further, 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 level of maturity of the regulatory system in five countries 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 and streamline and improve registration systems through capacity building by imparting principles of GRP and use of electronic IMSs.

MTaPS worked with several continental and regional organizations (e.g., ASEAN, SEARN) to support convergence and harmonization of medical product regulation in PV, regulatory inspections, and regulatory IMSs. MTAps offered technical assistance to validate and use the regional centers of regulatory excellence monitoring and evaluation 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.

Support was provided to foster convergence of medicine regulation in ASEAN, SEARN, and IGAD. The goal of MTAps is for supported countries to achieve stable and effective regulatory systems to assure the safety and quality of medical products on the market.

CUMULATIVE PERFORMANCE TO DATE

This next section presents select country examples of how systematic application of capacity development approaches have been applied since the beginning of the program and demonstrates sequential improvement in the pharmaceutical systems concerned.

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

In **Cote d'Ivoire**, 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 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 TORs and guidance manual for this body and its sub-committees. MTaPS **Philippines** supported DOH to assess the PSCM and PV workforce needs and develop a PSCM and PV workforce development plan which has been used by DOH in the process of hiring new staff, developing and offering e-learning modules to train the workforce, and developing the concept of LTAPs to support implementation of PSCM systems.

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

MTaPS **Cameroon** supported the baseline assessment of IPC practices in 38 HFs, development of IPC training curricula, establishment of ICCs in 12 HFs, development of the national IPC guidelines and action plan, training of 174 health staff (79 female, 95 male) in IPC, CQI of IPC practices in 12 HFs, and the development of a national surveillance protocol to monitor HCAs. Since MTaPS began in September 2018, **Cote 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 successfully helped establish an MSC mechanism for zoonotic diseases and a TS and TWGs to monitor AMR activities. MTaPS also assessed IPC practices and AMS regulations leading to the development of IPC guidelines and an AMS action plan.

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

MTaPS **Cote d'Ivoire** supported a situational analysis of the capacity and functionality of ICCs and DTCs in 20 targeted HFs in the human health sector (4 university teaching hospitals, 12 regional hospitals, and 4 private clinics) and 2 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.

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

Rwanda - To address the human resources capacity gap, MTaPS supported training in pharmaceutical management of 846 Rwanda FDA staff and other HCWs in MER, good manufacturing practices, good review practices, good reliance practices, PV, and QMS, among other topics. As part of long-term sustainability of capacity building, MTaPS provided technical support to develop online e-learning courses

in MER and PV, which are hosted on the Rwanda FDA server. Twenty-seven trainees undertook the online PV course while 114 (85 male, 29 female) Rwanda FDA staff enrolled in the online MER, of whom 8 completed the MER course. In June 2021, during the annual NPC conference, MTaPS supported MOH and Rwanda FDA to disseminate information on the pharmaceutical service accreditation standards and medicines safety to 440 participants (295 male, 145 female).

YEAR 4 ACHIEVEMENTS & RESULTS

In this yearly report, we highlight examples of where we are working towards sustainable improvement of individuals and organizations as capacity strengthening approaches are applied across pharmaceutical systems.

In **Cote D'Ivoire**, targeted GHSA capacity development activities, aligned with WHO benchmarks for IHR capacities, has seen smooth progress towards capacity levels 3 and 4 from a much lower baseline. MTaPS supported the national AMR secretariat to establish and build capacity within the AMR, IPC, and AMS TWGs in line with NAP-AMR activities. MTaPS has supported the AMR TWG to organize effective coordination through regular meetings, including the AMR TWG quarterly meetings, the IPC and AMS Multisectoral Technical Committee (MTC) bimonthly coordination meetings, and the semiannual meeting of the Multisectoral Coordination Group (MCG). MTaPS supported improving the AMR secretariat and TWGs continued to organize regular meetings without MTaPS financial support. Clear local governance now exists to continue to progress the GHSA agenda.

E-learning modules need to be integrated into country systems for ongoing use. In Year 4, MTaPS **Mali** supported two local training institutions to strengthen capacity in managing eLearning on IPC and AMS for pre- and in-service health care workers. This activity improved the use of the e-learning platform in Mali for pre- and in-service learners and has integrated these modules so they will continue to be of value beyond the life of the project.

Through year 4, MTaPS built capacity to implement and perform internal quality audits within the quality management systems of NRAs within **Bangladesh, Nepal, Mozambique, and Rwanda**. As a result, they are better equipped to implement WHO GBT requirements and prepare for ISO certification, a step-in systems maturity.

MTaPS worked to encourage convergence of medicines regulation, harmonization of PV systems across borders in **EAC / IGAD** regions, and technical standards for medicines registration among two SEARN member states (Bangladesh and Nepal). This harmonizing of systems contributes to the delivery of effective monitoring of the safety of medicines and quick access to safe and quality medicines within the specified jurisdictions.

QUARTER 4 ACHIEVEMENTS & RESULTS

Capacity development activities continue to cut across all objectives of MTaPS' work. In this section, we highlight a couple of key interventions of note for Q4:

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

MTaPS **Cameroon** continued to support the DPML to monitor DTCs remotely via the WhatsApp platform. In **Indonesia**, InaHTAC, Pusjak PDK, and the University of Gajah Mada held regular meetings on the capacity building approach that MTaPS will be supporting researchers to implement the RWE calibration. In **Kenya**, two online trainings where HCWs were awarded CPD points were conducted on July 14 and September 21, 2022, with PSK (514) and IPNET-K (47) respectively. On September 15, 2022, MTaPS supported a workshop for the National Nurses Association of Kenya to develop a framework for their training academy and integration of IPC and AMS training modules. MTaPS **Mali** continues to support selected training institutions to manage their e-learning platforms. So far, 244 participants have been registered within the following distribution: 43% medical doctors, pharmacists, nurses, hygienists; 44% medical students; 4% university lecturers; and 9% others. Twenty-seven learners have obtained their course completion certificates. Continued utilization of e-learning materials will require local institutions to run and update the platforms that host these materials.

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

In the **Philippines**, MTaPS has supported DOH in the delivery of several training sessions and consultative workshops on eLMIS. The training of eLMIS users, finalization of master data items, and completion of deployment checklists facilitates the successful launch of eLMIS rollout. The scale-up of eLMIS to more warehouses and facilities will continue in the following quarters. As part of PSS, MTaPS **Rwanda** is providing support to MOH to strengthen its governance and oversight roles on the implementation and functioning of MTCs in the HFs. A training guide, presentations, and job aids on the MTC manual and on appropriate storage of oxytocin were developed and reviewed by MOH. MTaPS **Senegal** worked with DQSHH to support the implementation of the improvement action plans of the five hospitals enrolled in the revitalization process of their ICC. As a result, 130 ICC trainers (72 female, 58 male) were trained on IPC, including the hospitals of Kédougou (27), Abass Ndao (27), Fann (31), Sedhiou (16), and Kaolack (29). MTaPS supported the trained trainers to organize the IPC training sessions for 211 HCWs (136 female, 75 male) and 80 administration support staff (48 female, 32 male) in Kedougou and Abass Ndao hospitals.

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

In **Cote d'Ivoire**, MTaPS—in collaboration with the IPC TWG (MTC4)—organized a training of 30 (17 male and 13 female) HCPs from 2 private clinics in Abidjan. Two IPC trainers and one central IPC master trainer facilitated a three-day training in each facility. The trainers facilitated 14 sessions. The HCPs are now able to implement IPC practices in their respective HFs. In **Nepal**, MTaPS initiated an evidence-based AMR landscape mapping by evaluating AMR-related articles published in Nepali and English newspapers, national TV/media contents, and scientific platforms to document previous and ongoing AMR-related activities and actions carried out by the government of Nepal, MOHP, and OH partners. The mapping will provide the basis for the development of an AMR training curriculum for journalists and to develop IEC materials on AMR containment and AMS.

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

In Q4, MTaPS provided technical assistance to NRAs in Africa and Asia including **Bangladesh, Mali, Mozambique, Nepal, Rwanda**, and the **Philippines** to implement interventions that contribute to

maturity level increase by addressing indicators according to WHO GBT, the NRA institutional development, and MTaPS priority areas such as product registration. MTaPS supported the **Mozambique** ANARME in enhancing its information system by adapting Pharmadex to conform to the common technical document format for MA and enhancing medicines registration and regulatory inspection procedures. MTaPS has enabled the **Rwanda** FDA to replace the Product Information Management System with the IRIMS integrated with the PViMS for effective regulatory and PV operations. In addition, MTaPS collaborated with the **Rwanda** FDA to establish regulations for medical devices, which included provisions for the registration of IVDs. MTaPS provided technical assistance to **Bangladesh, Nepal,** and **Rwanda** to implement QMS by training a selection of Rwanda FDA and Nepal DDA personnel to serve as lead internal auditors for the agency's QMS and development of a roadmap for QMS implementation at DGDA, Bangladesh. In addition, MTaPS supported implementation of e-learning courses on the evaluation and registration of medicine to facilitate the registration of medical products by Rwanda FDA.

MTaPS facilitated creation of a mechanism for performance monitoring and enforcement of DGDA **Bangladesh** regulatory functions. Several interventions were supported in **Nepal** to raise the maturity level based on the MALAP including capacity building for GSDP and gap analysis for the clinical trial regulatory framework and development of a TOR for the clinical trial committee. Stakeholder engagement was carried out to discuss the situational analysis findings for HTP regulations and the need to update the current regulation. A field visit for **Nepal** regulatory officials was carried out in BadanPOM in Indonesia to expose and learn best practices in medicine registration and inspection in the region.

To support harmonization of regulatory procedures MTaPS identified and validated minimum common standards for regulatory IMSs in consultation with select key stakeholders (global players and NRAs) that will enable uniform data capture and standardize the data, design, and workflow of regulatory functions.

MTaPS participated in several meetings with **ASEAN PPWG** and **AUDA NEPAD** to discuss plans and interventions for promoting convergence and harmonization of medicine regulation on both the Asian and African continents. Plans to provide capacity building in medicine and vaccines dossier evaluation for ASEAN member states were approved for implementation. MTaPS held a meeting with the Information Management System Technical Committee to agree on the support to develop the strategy for digitalization of medical products regulatory systems at the continental level as well as regional, national level in Africa.

BEST PRACTICES/LESSONS LEARNED

- Cooperation and support from NRAs are crucial for the successful execution of programs to strengthen regulatory systems.
- IMSs have a crucial role in fostering effectiveness, transparency, and harmonization among NRAs throughout Africa.
- To build sustainable capacity, in-service AMS CPD training can be made available through professional associations, providing ongoing access to this training.

- To address skills loss due to staff turnover it is necessary to develop focal points at the facility level who can maintain and update skills of new staff.
- Sustainable capacity development is only possible if ongoing funding is budgeted for and then made available for capacity development needs.

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

OVERVIEW

The goal of the MTaPS MIS portfolio is to ensure the availability and effective use of quality-assured data for decision-making to ensure the availability of safe, effective, quality-assured, and affordable medicines, which is critical for achieving desired health outcomes.

CUMULATIVE PERFORMANCE TO DATE:

MTaPS **Bangladesh** performed enhancements to the existing electronic supply management tools in the DGFP, i.e., eLMIS, Warehouse Inventory Management System, and Upazila Inventory Management System. Following MTaPS' recommendations, DGFP allocated adequate funds in their OP for maintaining and managing these systems toward sustainability. MTaPS provided technical assistance to the DGFP throughout the project to review and manage the stock status of RH and FP commodities at different levels of the supply chain resulting in maintaining the stock-out rate at SDPs below 1% during the last couple of years. The DGFP also saved USD 9.6 million by reducing the unnecessary procurement of FP injectable commodities by 20 million units during FY2021–22. These results were achieved through utilization of the data generated from the MTaPS developed DGFP eLMIS.

MTaPS **Bangladesh** introduced the eAMS in all 62 DHs across the country. Among them, about 50% of hospitals completed the entry of assets data into the system, which allows near real-time tracking of their assets and timely maintenance also contributing to ensure effective procurement.

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

NTP in **Bangladesh** has declared paperless reporting of TB data using the e-TB Manager for selected divisions and has a plan to expand this nationwide in a phased manner. This has reduced the workload of end users and made the data available in real time allowing prompt monitoring and management actions.

e-TB Manager is interoperable with the Janao App in **Bangladesh** to capture information of TB patients treated at private centers, thereby increasing the network and data visibility. The system server was transferred from MSH to MIS, DGHS, and is managed by local developers. The system has been enhanced for electronic reporting of aDSM in all 10 sites which allows prompt data analysis and actions by the DGDA.

In **Nepal**, a new regulatory information management system, Pharmadex, is in the process of customization to increase efficiency and data use at the 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 toward best dossier review and will link to DDA available

resources. The Pharmadex registration module will include registration of medical devices and HTPs, which is important to set up their regulation. A strategy for the new regulatory requirement for medical devices and HTPs was drafted for discussion with the DDA, based on a situational analysis that was conducted. This work is the culmination of two years of MTaPS technical assistance to the DDA, since the agency approved the adoption of Pharmadex to replace their existing Drug Administration and Management System (DAMS).

MTaPS **Mozambique** and the DNF/ANARME achieved key agreements to implement the online version of 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 functionality in Pharmadex is being finalized for the review of product dossiers in alignment with DNF requirements. The import module was also finalized and installed on the Amazon web server. These functionalities for the import and registration modules will contribute to improved customer service, reduced time needed to register a medicine, and reduced backlog of dossiers at DNF.

MTaPS supported the **Rwanda** FDA to adapt the electronic PViMS for spontaneous reporting of ADEs, including COVID-19 vaccine AEFIs, and subsequently for ASM of DTG-based antiretroviral therapy (ART) regimens. From June 2021 to January 2022, 568 AEFIs, of which 186 were serious, have been reported to the Rwanda FDA, which 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 timely feedback to clients, patients, and HFs.

MTaPS **Philippines** supported the DOH's Pharmaceutical Division to present and align PViMS with DOH active drug safety monitoring stakeholders such as the NTP, FDA, Lung Center of the Philippines training team, Philippine Business for Social Progress-Global Fund, and other implementing partners. PViMS training was rolled out to 198 programmatic management of DR-TB facilities in January 2022 as part of efforts to ensure patient safety. MTaPS Philippines also supported the Pharmaceutical Division to meet with KMITS and the NTP to align and discuss different scenarios relevant to the interoperability between PViMS and Integrated Tuberculosis Information System. MTaPS, the Pharmaceutical Division, and NTP trained approximately 758 participants (185 males, 558 females, 15 unknown) from 201 PMDT facilities on the use of PViMS and issued 70 user accounts. MTaPS also upgraded the PViMS software to version 2 and completed 87 software enhancements, including interoperability with Vigiflow.

DOH and MTaPS **Philippines** selected the solution Entuition Vesta of Bileeta Pvt. Ltd. for a commercial off-the-shelf eLMIS and kicked off its implementation by conducting a co-development workshop September 30–October 1, 2021, with the DOH, MTaPS, Bileeta, and development partners. Sixty participants attended the workshop and discussed the features of eLMIS and implementation approach. A workshop with the DOH and eLMIS stakeholders was held in November 2021, to validate the eLMIS requirements and confirm the system requirement specifications document. The eLMIS conforms with the DOH's warehouse operations manual, which was developed with MTaPS support to standardize warehouse operations. MTaPS supported DOH in configuring the off-the-shelf eLMIS in line with Philippines' PSCM processes, organizing the user acceptance test activity, developing the phased eLMIS roll-out plan, deploying the eLMIS system, and building master trainers that trained eLMIS end users in support of the roll out. MTaPS provided bridging support in the webhosting of the eLMIS and engaged with other IPs to advocate their support to DOH on eLMIS implementation. The configured eLMIS is

now accessible to users. MTaPS has supported DOH in the initial roll-out of the eLMIS real-time transactional system to six DOH central warehouses (two owned, four rented).

YEAR 4 ACHIEVEMENTS & RESULTS

Bangladesh: After rollout of e-TB Manager, NTP stopped paper-based reporting and started collecting electronic reports uniquely through e-TB Manager. In collaboration with NTP and MIS-DGHS, MTaPS developed a transition plan to ensure smooth functioning of e-TB Manager after the program ends. DGFP's implementation of eLMIS enabled it to maintain adequate stock of contraceptives at more than 99% of SDPs, ensuring availability of FP methods when required to clients. The DGFP saved USD 9.6 million by canceling a procurement package of 20 million vials of injectable contraceptives, after data generated and analyzed by the DGFP's eLMIS showed abundant stock. The MOHFW had an associated World Bank Disbursement Link Indicator in the 4th Health Population Nutrition Sector Program (HPNSP) related to eAMS implementation. MTaPS worked closely with the MOHFW and the DGHS to achieve the indicator through the following:

- eAMS implemented and functional in 30 DHs selected by the MOHFW
- Approved eAMS operational guideline
- Approved eAMS training manual

Mozambique: MTaPS continued supporting ANARME to complete and clean missing TLD data in PViMS. MTaPS held a coordination meeting with ANARME to prepare for the capacity building training session on TLD causality assessment presentation that was developed and reviewed by MTaPS technical experts. The session, held in June 2022, was followed by practical training in July 2022 on using PViMS to perform causality assessment. Nine participants from the ANARME, PI PV team attended the training.

Rwanda: The electronic regulatory information management system (IRIMS) was deployed on Rwanda FDA's local test serve. The hosting servers required for optimal running are under procurement. By PY4 Q4, 177 Rwanda FDA staff received hands-on training on the management and use of IRIMS.

Nepal: MTaPS successfully demonstrated to DDA senior management the Pharmadex 2 modules for registering and tracking Nepal's nearly 30,000 pharmacies and 4,000 pharmaceutical wholesalers and importers. Also, MTaPS developed and piloted GPP and GSDP electronic self-inspection tools based on GPP and GSDP guidelines. The tools are integrated in the Pharmadex registration modules. **Philippines:** The commercial off-the-shelf eLMIS solution, Entuition Vesta, was selected to facilitate streamlining of all logistics information of health commodities and vaccines in a single platform and improve efficiency. The eLMIS conforms with the warehouse operations manual which was developed with MTaPS support to standardize the warehouse operations process. MTaPS supported the DOH to configure the off-the-shelf eLMIS in line with the Philippines' PSCM processes, organize the UAT, develop the phased eLMIS rollout plan, deploy the eLMIS system, and build master trainers that trained the eLMIS end users in support of the rollout. MTaPS provided bridging support in the web hosting of the eLMIS, and it engaged with other IPs to advocate their support to the DOH on eLMIS implementation. MTaPS introduced global PV best practices to the FDA, which used these learnings to revise the Administrative Order (AO) on PV and develop PV guidelines for public health programs. MTaPS partnered with the FDA to deliver a PV overview webinar to health workers to help build a culture of PV reporting. MTaPS supported the DOH to roll out PViMS, an active surveillance tool for TB, to PMDT facilities in all 17

regions. PViMS will help improve the quality of AE reports prior to causality assessment. MTaPS supported establishing the interoperability between PViMS with the FDA's Vigiflow. MTaPS collaborated with the DOH to conduct TOTs on IPC and HCWM manuals and checklists to help cascade the standards across all regions and their respective catchment areas. MTaPS also partnered with the DOH to build the capacity of policy planners by delivering a webinar on the role of sex and gender in PSCM and PV.

QUARTER 4 ACHIEVEMENTS & RESULTS

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

Bangladesh - Enhance and scale up eLMIS previously developed for TB commodities in DGHS

MTaPS continued supporting the rollout of eLMIS for TB commodities. In Q4, training sessions were conducted for 112 HFs from Rajshahi and Rangpur divisions. The remaining training for the four districts of the Rangpur division was completed by the end of September 2022 as planned. A total of 360 (51 female, 309 male) participants from the NTP, district and upazila level officials, and supervisors from partner organizations (i.e., BRAC, Damien Foundation, and LAMB) were trained. The training will enable the participants to understand the basic concepts of logistics management and support the rollout of eLMIS for TB commodities in their respective upazilas, and to ensure end-to-end TB logistics data visibility.

Bangladesh - Transition e-TB Manager to the NTP

In collaboration with the NTP and MIS, DGHS, MTaPS developed a transition plan for e-TB Manager to ensure smooth functioning and sustainability of the system after MTaPS period.

Mozambique - PViMS

The MTaPS team finalized updates to PViMS, including configuration and acceptance testing of the TPT dashboard; discussed with ANARME and the National Institute of Electronic Governance (INAGE) on plans to move the upgraded PViMS to a live environment.

Rwanda - Support replacement of the PRIMS with the IRIMS for effective regulatory functioning of the Rwanda FDA

MTaPS provided technical assistance and installation of IRIMS to increase the efficiency of the Rwanda FDA's regulatory functions. The IRIMS test system was deployed on the local Rwanda FDA server. MTaPS supported the Rwanda FDA in finalizing data cleaning, establishment of data sets, and migration of paper-based data into IRIMS. In addition, progressive system enhancements based on the user request, system validation, and testing have been conducted along with involvement of internal users for the pilot phase. To further contribute to system strengthening, MTaPS handed over to the Rwanda FDA a professional-grade printer to be used for hard copy document production.

Nepal - Implement pharmaceutical management information system, Pharmadex, for registration, inspection, importation and exportation, and PV

The DDA UAT for the pharmacy and wholesale registration module of Pharmadex was completed and 10 new applicants registered their pharmacies in both Pharmadex (now called DDA-MIS), and the

existing DAMS. Of the 10 applicants, 3 had no computer skills, but all applicants were able to submit their application in both systems and fill in the self-inspection tool in the DDA-MIS. The new registration module lessens the burden on the limited number of DDA inspectors. Following this successful pilot test, the DDA requested that all registration modules (i.e., pharmacy, wholesalers, manufacturers, medicines, and HTP) be finalized and demonstrated before the DDA evaluates the feasibility of adopting the DDA-MIS countrywide. All registration modules were finalized by the end of September and the complete registration package is ready for demonstration and feasibility evaluation next quarter. MTaPS continued the procurement and tender process for DDA computers in central and branch offices and shelves for storage of dossier files and regulatory materials, which are needed for DDA to organize their filing and properly transition to an electronic filing system.

Philippines - eLMIS

MTaPS supported the DOH in the delivery of several training sessions and consultative workshops on eLMIS. MTaPS supported the DOH in orienting the CHD National Capital Region (NCR) on its eLMIS advocacies with 75 (24 male, 51 female) participants; the team also facilitated brainstorming with other CHDs on eLMIS roll out with 51 (21 male, 30 female) participants. Also, as part of the rollout preparation, MTaPS and Bileeta (the contracted vendor) jointly conducted initial training for 8 (3 male, 5 female) participants from SCMS and KMITS on eLMIS service support or helpdesk activities during the rollout/go-live period. The eLMIS minimum viable product was achieved this quarter and the system was deployed to the production environment. Essential master data such as Stock Keeping Units of 987 products and 34,151 facilities with different organizational hierarchy have now been imported and installed into eLMIS. The configured eLMIS is now accessible by intended users and ready for use. In addition, MTaPS supported the DOH in finalizing and disseminating the eLMIS deployment checklist and inventory/opening balance–capturing template which the implementing sites are required to accomplish in preparation for the countywide rollout. Also, MTaPS supported the DOH in the initial rollout of an eLMIS real-time transactional system to six DOH Central warehouses. The training of eLMIS users, finalization of master data items, and completion of deployment checklists facilitates the successful launch of eLMIS. The scale-up of eLMIS to more warehouses and facilities will continue in the following quarters.

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

Bangladesh - Strengthen the capacity of DGHS decision makers and HF staff to use eAMS at selected districts

A significant number of assets information entries (1,801) were completed during Q4 with MTaPS technical assistance. Currently, 7,548 assets information entries are managed by the eAMS to track availability of assets, their functional status, and repair and maintenance history, including their location. With key information available in the eAMS, health managers can plan more efficiently for preventive maintenance and required repair, and for future procurement of medical equipment.

Philippines - Provider Integration and Engagement System (PIES)

MTaPS completed the contracting of a digital provider to support the PIES implementation. The provider has an existing digital solution for LGUs to connect and streamline the information from different health providers that are part of their HCP network. This activity aims to demonstrate how effective provider engagement through integrated digital solutions and private sector partnerships can

contribute to increased access to essential health commodities and health services in seven targeted LGUs in the provinces of Batangas and Laguna. The initiative will enable the participating LGUs to have access to essential tools and information to manage a wide array of providers and build local competencies to translate information into actionable management and policy decisions.

Philippines - PViMS implementation

The PViMS training is now incorporated as part of the training for newly hired PMDT staff conducted by LCP, the training arm of the DOH DPCB on PMDT. This quarter, the DOH PD, LCP, and other IPs assessed the causality of the AEs reported through PViMS during the first 6 months of 2022 with MTaPS support. Out of 50 reports, 30 were assessed and the remaining 20 will be assessed by PD. The implementation of PViMS has helped the country implement key essential ADSM activities.

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 subobjective.

BEST PRACTICES/LESSONS LEARNED

Bangladesh

In FY22 MTaPS undertook an activity to “assist DGFP in developing a mechanism for the service and logistics data validation process.” The objective of the activity was to integrate two systems (eLMIS and the electronic management information system [eMIS]) to validate the rationality between service and logistics data. A data analysis from both systems was done prior to the system integration trial to validate and match the number of SDP and contraceptives distribution of two selected subdistricts. A significant data mismatch was found in both the number of SDP and product-wise distribution data. The DGFP asked not to move forward with this until the root cause of mismatch is identified. A lesson is that before undertaking such an activity a preassessment or feasibility study is necessary.

Rwanda

There is a need to be flexible in program implementation. In strengthening automation of Rwanda FDA regulatory processes while implementing IRIMS, the program had planned to purchase a virtual server and cloud storage for the system at the National Data Center. However, during the process, due to the failure of the center to comply with a US technology regulation, MTaPS could not proceed with this plan. MTaPS procured physical servers as a mitigation response.

Nepal

Demonstrating the utility of the HTP registration module, as such module does not exist in DAMS, is a strategy that may increase the likelihood of the DDA’s adopting Pharmadex (DDA-MIS).

Philippines

One-USAID approach: The USAID mission has encouraged collaboration among USAID IPs in project implementation and has been organizing regular coordination meetings to discuss activities including LGUs. As MTaPS mostly works at the national level, utilizing the One-USAID approach helped accelerate the introduction of MTaPS activities at the local level and the engagement of local partners.

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

OVERVIEW

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. Some country-specific objectives of MTAps' work in pharmaceutical financing are to build country 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 PE tracking to improve purchasing value, and strengthen pharmaceutical-sector governance.

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

CUMULATIVE PERFORMANCE TO DATE

Based on goals of the GOB's 20-year health care financing strategy, **MTaPS Bangladesh** supported MOHFW and other stakeholders to explore options for supporting implementation of the pharmaceutical-related components of the strategy, including PE tracking. This activity was undertaken with MTAps' partner, Results for Development, who delivered a situational analysis report.

In the last 17 months, **MTaPS Indonesia** achieved good results in supporting MOH with HTA and PE activities. To reinforce HTA activities, the MTAps team supported Pusjak PDK, MOH, and the Indonesia HTA Committee (InaHTAC) to redevelop and agree on the criteria for HTA topic selection and use of the MCDA technique in topic prioritization. MTAps also facilitated the development of digital forms for HTA topic nomination for stakeholders and supported the call for a topic launching event. In addition, MTAps Indonesia initiated capacity building for HTA agents in the use of RWE calibration method. The exercise specifically supported the HTA study on the medicine Trastuzumab for early breast cancer treatment.

MTaPS also supported MOH in organizing the ninth HTAsiaLink Virtual Conference on October 11–13, 2021. The MSH-led online pre-conference workshop organized with the theme “Health Technology Assessment Pathways in LMICs: Scaling up for Sustainability of UHC in Asia” drew 220 participants. Participants came from Indonesia, the Philippines, Vietnam, Singapore, Taiwan, and Malaysia and

represented government agencies, MOH, academic institutions, the private sector, NGOs, and others. MTaPS also supported the HTAsiaLink Committee to develop the conference digest document.

MTaPS built MOH's capacity in PE tracking by first conducting a system-wide landscaping of existing and potential sources of PE data and then producing a summary brief. Next, MTaPS—in collaboration with the Indonesian Health Account (HA) team—compiled existing PE data from available national sources including the MOH Directorate General of Pharmaceuticals and Medical Devices, the Indonesian FDA, National Family Planning Board, etc. After which, MTaPS created and analyzed a PE database in line with the 2011 SHA. The calculation of total 2021 PE will be part of the 2022 National Health Accounts (NHA) report to be submitted to the Minister of Health at the end of December 2022.

MTaPS Philippines supported DOH in the development of guidelines for FAs to ensure quality health commodities are procured through efficient procurement operations. While the FA guideline was not accepted by the Government Procurement Board, a policy and legal provisions assessment is currently underway to address the policy gaps. MTaPS is also working with USAID's Reach Health project, DOH, and LGUs to test out innovative use of a digital platform to facilitate exchange of information, cross-referral, and cost reimbursements among the members of local HCP networks to integrate public and private providers into local health systems.

YEAR 4 ACHIEVEMENTS & RESULTS

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

Nothing to report.

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

MTaPS supported the implementation of HTAsiaLink 2021 by organizing the online workshop, providing language interpreters for conference sessions, and developing the conference report in digest book form. Regarding HTA strengthening activities, MTaPS reviewed the current HTA topic selection process and agencies' best practices, and documented recommendations for potential interventions for 2022 and following years. In collaboration with Pusjak PDK, MTaPS facilitated an MCDA workshop to redefine and weight the criteria for assessing HTA topics for a streamlined topic prioritization process. MTaPS' key principles in HTA topic selection were incorporated into the revised HTA guidelines co-developed with the World Bank, InaHTAC, and Pusjak PDK. Regarding the call-for-topics event, MTaPS provided technical assistance to Pusjak PDK to allow a wider range of stakeholders (i.e., academics, associations, hospitals, private sector) to nominate HTA topics by using digital forms developed with MTaPS' support.

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

In **Indonesia**, MTaPS finalized the mapping of PE data sources and afterward began tracking PE at the national level. A team of local consultants obtained secondary data from MOH databases and the Indonesia FDA's information system. They calculated an aggregated estimate of Rp 173.27 trillion (11.5 billion USD) for the country's total PE. Currently, the team is completing the analysis by incorporating

PE data from the Special Access Scheme (SAS) for vaccines and adjusting for wastage. The final aggregated figures will be reported to the MOH in November 2022.

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

Nothing to report.

QUARTER 4 ACHIEVEMENTS & RESULTS

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

Nothing to report.

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

OBJECTIVE 1: Strengthen the institutionalization of more systematic, transparent, and evidence-informed decision making in Indonesia

Indonesia - Strengthen the topic selection process for the HTA committee, InaHTAC

MTaPS facilitated a workshop with InaHTAC, Pusjak PDK, and HTA stakeholders to refine the criteria for selecting HTA topics from the current eight (high volume, high risk, high cost, high variability, policy urgency, health impacts, cost savings, and acceptance) to six criteria (volume, impact of technology on health, cost technology, compliance with policy priorities, potential cost savings, and social acceptance). The new criteria were accepted by InaHTAC for its measurable indicators and non-redundancy. Moreover, the criteria will be weighted to reflect the relative importance of each criterion in prioritizing HTA study topics proposed by stakeholders. In addition, the workshop discussed the draft revised HTA study topic request form which will be open for online submission by stakeholders and HTA enthusiasts in October 2022.

InaHTAC and Pusjak PDK started preparing for "the Call for HTA Topics" for the 2023 cycle. MTAps provided technical assistance in developing a flow chart detailing the HTA topic selection procedure, weighing the criteria for HTA topic selection, and co-developing a digital form for stakeholders to nominate HTA topics. The call for HTA topics will be open from October 2022 to November 2022.

In addition, MTAps provided critical inputs to the HTA guidelines that were developed by the World Bank, particularly in the pre-assessment section, namely the criteria for selecting HTA topics, the flow of submissions, and topic selection for decisions on topic priorities to be implemented in following years.

Indonesia - Build capacity of key stakeholders on HTA methods

InaHTAC, Pusjak PDK, and the University of Gajah Mada held regular meetings on the capacity building approach that MTAps will use to help researchers implement RWE calibration. For the calibration development process, other agents will be invited so that the capacity building process can be carried out together. In the future many agents can use RWE calibration for other HTA studies. Regarding the HTA study on Trastuzumab, MTAps will assist in the RWE calibration process and, if needed, invite experts with experience in the real-world data/RWE methods that will be used in this study.

Indonesia - Strengthen the appraisal process for the HTA committee, InaHTAC

To complete the literature review appraisal, Pusjak PDK invited MTaPS as an observer for the appraisal process of an HTA study comparing three cervical cancer screening methods. MTaPS and Pusjak PDK will hold a meeting on observations and literature reviews for the HTA appraisal in October 2022.

In addition to the pre-assessment inputs to the HTA guidelines developed by the World Bank, MTaPS provided relevant inputs on the HTA appraisal section, namely the grouping of study aspects to be assessed, and appraisal management including the recruitment process for the ad-hoc team for HTA appraisal, outputs of each agenda, parties to be involved, and procedures for making appraisal decisions.

Indonesia - Writing the HTAsiaLink Conference Digest and Publications

MTaPS expanded the publication outline and will be sharing the draft with the co-authors in Pusjak PDK and InaHTAC members for inputs in the next quarter. MSH had two abstracts accepted to the tenth HTAsiaLink 2022 in Pattaya, Thailand entitled “Indonesia's topic selection criteria elicitation process (Delphi)” and “Topic selection weighting using AHP method.”

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

Indonesia - Support the HA team to compile secondary pharmaceutical expenditure data at the national level

Following on Q3 efforts during which MTaPS calculated PE using data from around 70% of drug wholesalers in Indonesia, the team prepared and submitted a brief report with the findings to Pusjak PDK for review. MTaPS then continued data triangulation, organization, and analysis. In collaboration with Pusjak PDK, MTaPS identified the price of narcotic and psychotropic drugs purchased by wholesalers from the e-reporting system and calculated the total price of these drugs distributed by wholesalers to HFs. MTaPS also estimated the quantity of drugs distributed by the 30% of wholesalers that had not submitted data to the wholesalers e-reporting system. The team drew upon inputs from various information systems—including the Pharmaceutical Structures Monitoring System, the National FDA, and the Pharmaceutical Surveillance agency—to input missing data and perform triangulation of PE estimates. In collaboration with Pusjak PDK, MTaPS continued estimating final consumer spending by applying margin calculations and adjusted for the value of buffer stocks and wastage by HFs. Finally, Pusjak PDK and MTaPS conducted discussions with experts to obtain feedback on these adjusted aggregate estimates.

A consultation meeting was held in August 2022 after MTaPS completed the initial calculation of total PE. Pusjak PDK, with MTaPS' support, held the consultation with the Directorate General of Pharmaceutical and Medical Devices, MOH, academic experts, and representatives from IQVIA, the health care data and analytics firm. Staff from the Directorate General of Pharmaceuticals and Medical Devices expressed appreciation for MTaPS and Pusjak PDK for harnessing data from their information systems to produce national aggregate figures for 2021, which were estimated to be Rp 173.27 trillion (11.5 billion USD) before adjusting for the volume of buffer stock and final prices. This figure includes PE from approximately 80% of wholesalers and reflects the value of drug distribution from wholesalers to HFs, but not end user consumption. Estimates of aggregate PE will change as other relevant information is obtained. For instance, MTaPS and Pusjak PDK agreed to add PE data from the SAS data for vaccines

and medicines and recalculate the wastage rate. The final aggregate figures will be reported after MTaPS completes the preparation, mapping, and analysis of national PE data in November 2022.

Indonesia - Organize, map, and analyze national-level pharmaceutical expenditure data

In September 2022, MTaPS started developing the framework for mapping drug data to include the Anatomical Therapeutic Chemical Codes to enable classification by active ingredients and generic content, types of diseases treated, and therapeutic properties, pharmacology, and chemistry. To synchronize with the NHA report, MTaPS also mapped out provider schemes and flows of funding for PE. This activity is expected to be completed by the end of November 2022.

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

Nothing to report.

QUARTER 4 ACHIEVEMENTS & RESULTS

OBJECTIVE 5: PHARMACEUTICAL FINANCIAL RESOURCE ALLOCATION AND USE OPTIMIZED

Bangladesh - Continue to support HEU in pharmaceutical expenditure tracking for selected commodities other than MNCH

MTaPS, and an expert from partner Results for Development, discussed with MOHFW HEU the standard methodology adopted internationally to track PE and agreed with the HEU that it is different from that of disease-specific expenditure tracking used in Bangladesh so far. The expert visited Bangladesh and came to a consensus with the HEU on a methodology for tracking MNCH commodities and initiated activities for its implementation. The tracking exercise is expected to be implemented in the next quarter.

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

BEST PRACTICES/LESSONS LEARNED

- Mutual learning occurs through participation. Learning by doing was the case in the application of MCDA methodology to select HTA topics which expanded stakeholder participation and assisted InaHTAC to redefine criteria and weighting in determining priority topics for HTA studies.
- Facilitating institutional cooperation between MOH, HA teams, and Pusjak PDK led to broad transfer of skills and knowledge on the process of tracing, mapping, organizing, and analyzing PE data.

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

OVERVIEW

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

CUMULATIVE PERFORMANCE TO DATE

In PY1, MTaPS **Bangladesh** and **Philippines** supported their government counterparts to develop long-term procurement and supply chain strategies identifying strategic objectives and key interventions with a clear delineation of roles and responsibilities. In PY3, with strong leadership from local counterparts, MTaPS **Jordan** supported MOH to advance efficient vaccine procurement through policy and legal reforms. The reforms facilitate supplier market entry and increase competitiveness, enhancing vaccine availability to strengthen Jordan's immunization programs. In PY2, MTaPS **Philippines** analyzed the draft UHC IRR, recommended adding articles, and secured legal support for supply chain reforms. Following the UHC reform, MTaPS facilitated the PSCM roadmap design to support UHC implementation.

MTaPS **Bangladesh** supported the DGFP in using data generated through MTaPS-developed eLMIS for decision making and canceled unnecessary shipments of FP commodities, saving 9.6 million USD during PY4.

In collaboration with the National AMR Committee, MTaPS **Jordan** conducted six workshops for Al-Hussein Hospital ICU as part of the RMS Comprehensive AMS Program. Additionally, the MOH approved the National Policy to Combat MDROs, developed by the ACIPC with MTaPS' support. To enhance the technical capacities of IPC focal points, MTaPS supported ACIPC to launch a certified IPC training course for 35 IPC focal points and 28 RMS participants. Finally, MTaPS coordinated with the MOH School Health Directorate to nominate health educators for the MTaPS-led Communication and Awareness Intervention for School Students initiative and conducted a TOT session for them in preparation for the AMR awareness sessions next quarter.

In the **Philippines**, MTaPS supported the finalization of TOT materials on the IPC and HCWM standard guidelines and practices in HFs and used the materials to train 41 trainers who will help cascade the new standards on IPC and HCWM. To strengthen the capacity of MOH in the governance and oversight of MTCs implementation, MTaPS **Rwanda** supported the development and review of a training guide, presentations, and job aids on the MTC manual and on the appropriate storage of oxytocin. To map previous and ongoing AMR-related activities and actions carried out by the government of **Nepal**, MOHP, and OH partners, MTaPS began an AMR landscape analysis, which will inform the development of both an AMR training curriculum for journalists and IEC materials on AMR containment and AMS. Also in **Nepal**, MTaPS collaborated with DDA to develop e-learning materials for GPP and GSDP,

and a storyboard for the IEC materials on community awareness on the appropriate use of medicines. Furthermore, at two workshops attended by DDA and wholesalers, MTaPS supported the finalization of the GPP and GSDP implementation strategy and built the capacity of participants. MTaPS has been strengthening PV systems in **Bangladesh, Jordan, Mozambique, Nepal, Philippines, Rwanda, Tanzania**, and the **IGAD** region. MTaPS' support has included the establishment and strengthening of PV units/centers; the development of PV strategies, guidelines, and SOPs; awareness creation and training to increase AE reporting and causality assessment; the establishment of safety advisory groups, safety communication, and risk management; the establishment and implementation of active surveillance systems; and the use of technologies such as PVIMS for PV data management and decision making.

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

With MTaPS **Bangladesh's** technical assistance, MOHFW and key directorates developed a strategic plan for coordinated procurement in PYI. MTaPS also developed the TOE up to tertiary-level HFs and updated the MSR list with specifications. MTaPS developed a process for the oversight bodies at MOHFW and DGHS to monitor the performance of procuring entities using key performance indicators. MTaPS provided technical assistance to DGFP in reviewing and managing the stock status of RH and FP commodities at various levels of the supply chain, resulting in maintaining stockout rates below 1% at SDPs and canceling unnecessary procurement of FP commodities resulting in savings of 9.6 million USD in FY21/22.

MTaPS also provided support to DGFP to organize training on SCM and eLMIS troubleshooting for 299 sub-district level managers. Additionally, MTaPS introduced the eAMS in all 61 DHs across the country. Approximately 70% of them completed almost 100% data entry of assets into eAMS for near real-time tracking of assets, timely maintenance, and contribution to effective procurement.

MTaPS conducted a rapid diagnostic of the PSCM system in the **Philippines** and supported DOH to develop a three-year supply chain strategy. MTaPS analyzed the draft UHC IRR and suggested the addition of articles and ensured legal support for supply chain reforms. MTaPS supported DOH to design and develop a PSCM road map for the central, regional, and local government levels in support of the UHC implementation. MTaPS assisted DOH to develop a PSCM reform plan and institutionalize a fully functional PSCM governance mechanism with clear delineation of roles among DOH central office units, CHDs, and LGUs to strengthen stewardship and oversight for the PSCM systems.

MTaPS **Philippines** supported DOH in introducing strategic procurement initiatives by developing guidelines for FAs to ensure quality health commodities are procured through efficient procurement mechanisms. A policy and legal provisions analysis is currently underway to address the policy gaps. MTaPS supported DOH and POPCOM in updating and finalizing a warehouse operation manual and mentoring POPCOM in rolling out the warehouse supervision checklist. MTaPS supported the long-term forecast of quantity and budget requirements for TB and FP commodities in 2019-2022.

With strong engagement from local counterparts, MTaPS **Jordan** technical support resulted in successful procurement policy and legislative reform. Subsequently, MTaPS developed related guidelines and procedures and capacitated stakeholders through targeted and comprehensive training on procurement reforms. Also, MTaPS conducted a comprehensive pharmaceutical supply chain assessment to map the existing supply chain situation, identify pain points, and recommend key interventions.

SUB-OBJECTIVE 5.2: PATIENT-CENTERED PHARMACEUTICAL CARE IMPROVED

In **Nepal**, MTaPS supported DDA to develop e-learning materials for GPP and GSDP, and a storyboard for the IEC materials on community awareness of the appropriate use of medicines. Furthermore, MTaPS supported the finalization of the GPP and GSDP implementation strategy. Additionally, in response to findings from the GHPP situational analysis conducted by MTaPS, a nine-member TWG was formed by the MOHP Quality Standard and Regulation Division to revise the existing hospital pharmacy directives. In collaboration with the Curative Service Division, MTaPS began the development of a GHPP capacity building program for public sector hospital pharmacists.

SUB-OBJECTIVE 5.3: PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS ASSURED

MTaPS **Bangladesh** facilitated DGDA's scaling up of PV to more than 30 government and private HFs by providing training and creating PV units to institutionalize PV-related initiatives. DGDA, with support from MTaPS, developed and is implementing risk management and investigation procedures to identify, analyze, and mitigate medicines safety risks. MTaPS supported DGDA to upload safety data to WHO Uppsala Monitoring Center through its support on periodic evaluation of AE reports and actions were taken on a range of products based on evidence generated from this activity. DGDA achieved an 88% GBT score in PV, and this was mainly due to the continuous support provided by MTaPS to develop and implement corrective actions.

MTaPS **Jordan**, as an official member of NPVC, is actively participating and contributing to the regular committee meetings. MTaPS supported the MOH Electronic Transformation and Health Information Directorate in systematic sample randomization of vaccinated individuals and standardization of the information collection processes. In addition, MTaPS supported the analysis of multiple data sets from the COVID-19 vaccines AEFI surveillance system and generated comprehensive reports for decision making; the reports were submitted to the MOH's NPVC.

MTaPS **Mozambique** supported ANARME, PI and the HIV/AIDS program in establishing and implementing an ASM of TLD. Enrollment of the sample size and follow-ups have been completed. MTaPS also supported training on causality assessment for the ASM of TLD. Building on the experience from the ASM of TLD, MTaPS continued supporting the active PV system for TPT regimens. Following approval of the TPT protocol, MTaPS trained ANARME, PI personnel as TOTs on the protocol and SOPs. Also, MTaPS leverages ongoing support provided to HFs by CDC IPs to facilitate timely and effective implementation of the TPT active surveillance. These interventions will contribute to enhancing the capacity of ANARME, PI and the health programs to analyze PV data for clinical decision making.

MTaPS **Nepal** continued working closely with DDA and other stakeholders to strengthen the PV system. A PV situational analysis was developed based on the results of the GBT assessment. The situational analysis also included recommendations for further improvement of the PV system. MTaPS supported DDA in establishing a PV unit with an implementation plan; the support included furnishing the PV unit with PV-related reference materials.

MTaPS **Philippines** supported FDA to update the national PV policy and develop draft guidelines on selection of PV methods. MTaPS partnered with FDA to deliver a PV overview webinar to increase patient safety reporting by HCWs and helped DOH roll out PVIMS, an active surveillance tool for TB.

In PY3, MTaPS **Rwanda** supported the development of a costed multi-year national PV implementation plan to guide implementation of patient safety monitoring. MTaPS supported FDA in developing e-learning contents on PV. The e-learning course is institutionalized and freely available to be part of a regular CME program. IEC materials for public awareness on medicine safety were also finalized and disseminated in the same year. An ASM system was established, and protocols were developed and approved for the newly introduced DTG-based antiretroviral treatment regimens. In PY4, MTaPS supported TOTs and cascaded trainings on the protocols and SOPs to ensure effective implementation. These interventions increase public awareness on medicines safety and strengthen local capacity to monitor, detect, report, analyze, and prevent risks associated with use of health products.

MTaPS **Tanzania** supported the revision of the TOR for the national PV safety advisory committee and developed safety monitoring guidelines for the pediatric population, which has assisted the Vigilance Technical Committee (VTC) to assess the AEs associated with ARVs and other medicines. MTaPS capacitated TMDA staff on the assessment of PSURs and risk management plans for ARVs and other medicinal products. This support has helped TMDA to improve its capacity for monitoring, reviewing, and reporting of safety issues arising from medicines used by the pediatric population.

MTaPS supported **IGAD** and EAC Secretariats to convene quarterly meetings of the EWGs on PV. MTaPS also 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 EWG-PV's plan of activities. Regional experts from the IGAD Secretariat and member states were trained as trainers on the use of harmonized indicator-based PV assessment and monitoring tools. This training was further cascaded down to in-country data collectors from Djibouti, Ethiopia, Kenya, Somalia, and Uganda. Additionally, MTaPS trained cross-border HF personnel as trainers. MTaPS supported the cross-border facilities through CQI and mentorship to implement PV activities as per work plans developed during the TOT. MTaPS also supported NMRA, specifically PPB of Kenya, to analyze data for decision making through capacity building of PERAC. MTaPS, in collaboration with the EAC Secretariat and EAC states, developed and validated harmonized SOPs for the implementation of the EAC PV compendium. MTaPS—in collaboration with the IGAD Secretariat—supported the IGAD EWG-PV to develop a draft harmonized IGAD PV training curriculum, training package, and a costed work plan for PV.

SUB-OBJECTIVE 5.4: ANTIMICROBIAL RESISTANCE CONTAINMENT SUPPORTED

With the National AMR Committee, MTaPS **Jordan** conducted six workshops for Al-Hussein Hospital ICU as part of the RMS Comprehensive AMS Program. MOH approved the National Policy to Combat MDRO, developed by the ACIPC with MTaPS' support. To enhance the technical capacities of IPC focal points, MTaPS supported ACIPC to launch a certified IPC training course for 35 IPC focal points and 28 RMS participants. MTaPS also coordinated with MOH's School Health Directorate to nominate health educators for the MTaPS-led CAISS initiative and conducted a TOT session to prepare them for AMR awareness sessions next quarter. MTaPS **Philippines** supported the finalization of TOT materials on IPC and HCWM standard guidelines and practices in HFs and used the materials to train 41 trainers who will cascade the new standards. To strengthen the capacity of MOH in the governance and oversight of MTCs implementation, MTaPS **Rwanda** supported the development and review of a training guide, presentations, and job aids on the MTC manual and on the appropriate storage of oxytocin. To map previous and ongoing AMR-related activities/actions by the government of Nepal, MOHP, and OH

partners, MTaPS **Nepal** began an AMR landscape analysis, which will inform the development of an AMR training curriculum for journalists and IEC materials on AMR containment and AMS.

YEAR 4 ACHIEVEMENTS & RESULTS

Through MTaPS **Bangladesh's** support, the practices for the approval process for procurement plans and tender evaluations by MOHFW and DGHS (i.e., the oversight bodies) were successfully decentralized to the procuring entities in alignment with the required procedures. It significantly contributed to the reduction of the procurement process lead time and enhanced procurement efficiency. MTaPS also supported the successful implementation of DGFP eLMIS which enabled the directorate to maintain adequate stock of contraceptives at more than 99% of SDP, ensuring the availability of various FP methods when required by clients. After analyzing and using data generated through the eLMIS, DGFP saved 9.6 million USD by canceling unnecessary shipments of injectable contraceptives. MTaPS **Bangladesh** coordinated with MOHFW to roll out eAMS in 30 DHs and facilitated the approval of eAMS operational guidelines and training manuals. The support also helped MOHFW fulfill the requirements of the Global Fund disbursement link indicator. MTaPS **Bangladesh** supported DGDA on periodic evaluation of AE reports. MTaPS **Philippines** supported DOH to incorporate the PSCM roadmap for UHC implementation into DOH's Devolution Transition Plan. To help professionalize PSCM and PV, MTaPS supported DOH in updating the PSCM workforce development plan, and several PSCM-related courses were converted to asynchronous e-learning for uploading to the DOH Academy. The PSCM-related courses were initially delivered as webinars with 10,000 people trained cumulatively in PY4. Also, MTaPS **Philippines** capacitated DOH to improve the process of analysis of stock data, making stock status information available to key decision makers. MTaPS also conducted quantification orientation to DOH and selected CHD.

In collaboration with the National AMR Committee, MTaPS **Jordan** conducted six workshops for Al-Hussein Hospital ICU as part of the RMS Comprehensive AMS Program. Additionally, the MOH approved the National Policy to Combat MDRO, developed by the ACIPC with MTaPS' support. To enhance the technical capacities of IPC focal points, MTaPS supported ACIPC to launch a certified IPC training course for 35 IPC focal points and 28 RMS participants. Finally, MTaPS coordinated with the MOH School Health Directorate to nominate health educators for the MTaPS-led CAISS initiative and conducted a TOT session for them in preparation for the AMR awareness sessions next quarter. MTaPS **Jordan** presented four comprehensive reports covering the COVID-19 VSS.

MTaPS **Mozambique** continued to support the implementation of the ASM of TLD by facilitating and technically supporting supportive supervisory visits and calls to the nine study sites to undertake close-out of the study. Trainings were provided to ANARME, PI staff on causality assessment with the use of PViMS. Following the trainings, the ANARME, PI staff conducted causality assessment for the reported AEs. Data analysis has been carried out to inform development of the final TLD ASM report which is ongoing. With respect to ASM of TPT regimens, the protocol and other study materials were further assessed by the CDC head office and approved in March 2022. PViMS has been adapted to the study need and to improve data entry, synchronization, and visibility based on the experience from the TLD ASM sites. MTaPS and its global expert partner University of Washington—in collaboration with ANARME, PI PV experts—trained the central level core team from ANARME, PI and staff from CCS and Elizabeth Glaser Pediatric AIDS Foundation on TPT ASM implementation on April 19-20, 2022.

In the **Philippines**, MTaPS supported the finalization of TOT materials on IPC and HCWM standard guidelines and practices in HFs and used the materials to train 41 trainers who will help cascade the new standards on IPC and HCWM. To strengthen the capacity of MOH in the governance and oversight of MTCs implementation, MTaPS **Rwanda** supported the development and review of a training guide, presentations, and job aids on the MTC manual and on the appropriate storage of oxytocin. MTaPS **Philippines** supported FDA to deliver a webinar on PV to encourage a culture of patient safety reporting. It also assisted DOH to roll out PViMS, an active surveillance tool for TB, to PMDT facilities in all 17 regions and improve the quality of AE reports prior to causality assessment. MTaPS **Rwanda** conducted PV training for 19 participants, comprising 12 members of the NPAC and 7 staff of Rwanda FDA's PV and safety monitoring division, that equipped them with the required PV knowledge and skills to play their advisory and technical role and strengthen evidence-based decision making. In the ongoing active surveillance of DTG-based regimens, for the enrolled 1,437 participants as of September 30, 2022, patient follow-up to detect any AEs continued. So far, only nine AEs (i.e., mild skin rashes) have been reported. To map previous and ongoing AMR-related activities/actions of the government of **Nepal**, MOHP, and OH partners, MTaPS began an AMR landscape analysis to inform the development of an AMR training curriculum for journalists and IEC materials on AMR containment and AMS.

MTaPS **Nepal** conducted a situational analysis that identified the strengths and gaps of the existing PV system. Based on WHO's best PV practices and GBT assessment, it also prepared PV regulations, guidelines, risk management plans, and SOPs for PV regulation and reporting. MTaPS supported DDA to establish a PV and drug information working group which facilitated DDA to be a member of the International Society of Pharmacovigilance. To strengthen the passive medicine safety surveillance system for pediatric medicines used in the national HIV program, MTaPS **Tanzania** helped TMDA train VTC members on medicines, vaccines, medical devices, and diagnostics. In **IGAD**, MTaPS engaged PPB to boost its capacity to utilize PV data for decision making. MTaPS supported PPB in the development and implementation of TSR of AEFIs as a response to the introduction of COVID-19 vaccines. Also, MTaPS supported coordination mechanisms for PPB's PV work through a functional TWG on PV and PMS for which a two-year work plan was developed with MTaPS and PQM+ support. MTaPS assisted the IGAD Secretariat to hold a regional Pharmaceutical Manufacturing Conference.

QUARTER 4 ACHIEVEMENTS & RESULTS

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

MTaPS **Bangladesh** assisted MOHFW to draft a specification for the medical equipment listed in the TOE as part of updating the price guide. The price guide will contribute to improving the efficiency of the procurement entities in cost-effective planning and to ensuring transparency in the procurement process. MTaPS also supported DGHS to assess the structural and functional status of the procuring entities with recommended actions which will contribute to improving the efficiency of the DGHS procuring entities and in turn will contribute to reducing the overall procurement lead time.

MTaPS **Jordan** facilitated the coordination meeting of the NVPMC and provided technical support in addressing its priorities. Building on the successful legislative reform from FY21, in this quarter MTaPS developed key guidelines such as FA guidelines for vaccine procurement, procedures, and related

training materials. In addition, MTaPS has completed the country supply chain assessment to identify pain points and recommend key interventions.

MTaPS **Philippines** facilitated 2 webinar sessions on PSCM overview for 543 (117 male, 296 female, 130 unknown) participants and on warehouse management for 556 (171 male, 296 female, 89 unknown) participants. To ensure sustainability, MTaPS converted the two training courses into e-learning modules which will be uploaded to the DOH Academy. MTaPS, in collaboration with the USAID TB Platforms, provided supply chain orientation to 23 staff (10 male, 13 female) from the Navotas LGU. MTaPS will continue collaborating with other USAID IPs. Also, MTaPS supported PD to finalize the 2022 Q3 stocks data analysis report of selected warehouses and service delivery reports. MTaPS, in collaboration with MTaPS Asia Bureau, engaged a legal expert and worked with DOH's Procurement Service, DPCB, and PD to analyze the procurement policy and legal environment and address gaps to introduce strategic procurement initiatives (e.g., FA and PPM). Also, MTaPS facilitated a 4-day quantification training workshop for 18 (8 male, 10 female) participants from DOH and CHD.

SUB-OBJECTIVE 5.2: PATIENT-CENTERED PHARMACEUTICAL CARE IMPROVED

MTaPS **Nepal** collaborated with the DDA to develop both e-learning materials for GPP and GSDP and a storyboard for the IEC materials on community awareness on the appropriate use of medicines. Furthermore, at two workshops attended by the DDA and wholesalers, MTaPS supported the finalization of the GPP and GSDP implementation strategy and built the capacity of participants. Also, in response to the GHPP situational analysis findings by MTaPS, a nine-member TWG was formed by the MOHP Quality Standard and Regulation Division to revise the existing hospital pharmacy directives.

SUB-OBJECTIVE 5.3: PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS ASSURED

MTaPS **Bangladesh** supported periodic evaluations of ADEs. Seventy-three ADE reports were evaluated by the ADRM cell, and the evaluation outcome was completed in 13 reports. Out of complete reports, 10 had non-serious causality as likely and 3 had serious. Also, MTaPS assisted DGDA to organize a rally and roundtable discussion at DGDA for World Patient Safety Day on September 17, 2022. MTaPS **Jordan** shared the draft of key messages based on the safety survey findings to be approved and disseminated by NPVC as health communication messages to encourage vaccine uptake. MTaPS **Mozambique** supported ANARME, PI in the analysis of the active surveillance data of TLD in PViMS. Also, ANARME, PI's PV team conducted causality assessment on reported AEs after a theoretical training and orientation by MTaPS on how to use PViMS to perform causality assessment. MTaPS continued the establishment and implementation of the active surveillance system on TPT regimens. ANARME, PI trainers supported by MTaPS provided training to 21 provincial and district focal persons. These focal persons cascaded similar training to 82 other HCWs of the implementing sites. By the end of Q4, 65 participants had been enrolled and 30 follow-up visits were completed. MTaPS **Philippines** conducted an orientation workshop attended by 31 FDA leadership and officers from the national and regional levels to review PV best practices and to collaboratively update the national policy on PV and development guidelines on selection of PV methods. MTaPS **Rwanda** supported RBC and Rwanda FDA to carry out a quarterly supportive supervisory visit to all the sites implementing active surveillance.

SUB-OBJECTIVE 5.4: ANTIMICROBIAL RESISTANCE CONTAINMENT SUPPORTED

In collaboration with the National AMR Committee, MTaPS **Jordan** conducted six workshops for Al-Hussein Hospital ICU as part of the RMS Comprehensive AMS Program. Also, MOH approved the

National Policy to Combat MDROs, developed by ACIPC with MTaPS' support. MTaPS supported ACIPC to launch a certified IPC training course for 35 IPC focal points and 28 RMS participants. Finally, MTaPS coordinated with MOH's School Health Directorate to nominate health educators for the MTaPS-led CAISS initiative and conducted a TOT session to prepare them for AMR awareness sessions next quarter. MTaPS **Philippines** supported the finalization of TOT materials on the IPC and HCWM standard guidelines and practices in HFs and used the materials to train 41 trainers who will help cascade the new standards on IPC and HCWM. To strengthen the capacity of the MOH in the governance and oversight of MTCs implementation, MTaPS **Rwanda** supported the development and review of training materials and job aids for the training on the MTC manual and on the appropriate storage of oxytocin. To map previous and ongoing AMR-related activities and actions, MTaPS **Nepal** began an AMR landscape analysis, which will inform the development of both an AMR training curriculum for journalists and IEC materials on AMR containment and AMS.

BEST PRACTICES/LESSONS LEARNED

- Collaboration between USAID IPs and leveraging resources helps to synergize technical assistance provisions to the government of the Philippines at the central and local levels.
- Close coordination with the Philippines DOH on strategic procurement initiatives from the initial stage facilitated ownership and sustainability of interventions.
- Engaging government and international development counterparts to ensure complementarity of efforts instead of duplication increased government interest in the work and facilitated successful implementation.

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 their NAP-AMRs.

CUMULATIVE PERFORMANCE TO DATE

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

EFFECTIVE MSC-AMR

To support advancement toward levels 3 and 4 of the WHO benchmarks for IHR capacities, MTAps **Côte d'Ivoire** has supported the strengthening of MSC bodies in managing AMR through a number of key actions, including (1) coordinating regular meetings of the AMR, IPC, and AMS TWGs; (2) developing more than 15 critical governance documents, such as the NAP-AMR 2021-2025; and (3) ensuring regular progress monitoring, then submitting the data to regional and global levels. Additionally, to make sure that HCWs receive continuous training on AMR, AMS, and IPC, MTAps helped develop e-learning modules, which are now hosted at both the Directorate of Pharmaceutical Activity and National Institute of Public Health as well as at selected universities.

During PY2, MTAps **Ethiopia** provided technical assistance to PMED to help them better coordinate AMR multisectoral engagement by restructuring key MSC bodies, developing TOR, and establishing AMS and IPC TWGs. MTAps also supported PMED in successfully preparing and submitting a concept note to the AMR Multi-Partner Trust Fund in response to a proposal invitation for a multisectoral OH project on AMR with a funding envelope of up to \$1 million over two years. In PY4, MTAps worked with PMED and the National Antimicrobial Resistance Advisory Committee to popularize and cascade the revised national AMR prevention and containment strategy and plan of action (2021-2025) by providing support to prioritize activities; develop sector-specific/regional yearly action plans for each of the human, animal, and environmental sectors; and organize NAP-AMR advocacy workshops to familiarize and engage stakeholders to implement the action plans.

IPC IMPROVED AND FUNCTIONAL

During PY2 and PY3, MTAps **Cameroon** helped establish IPC committees in 12 HFs, conducted baseline IPCAF assessments, and began carrying out CQI activities. The CQI package included training for ICC members, development of IPC action plans, and supportive supervision of IPC activities using

WHO assessment tools. At the end of PY3, MTaPS conducted follow-up IPCAF assessments and found that all facilities had improved from their baseline score, with nine of the facilities progressing to the intermediate level, and one facility achieving an advanced rating. In PY4, in response to an identified weakness in the surveillance of HCAs and multidrug-resistant organisms, MTaPS collaborated with the DPS, IPC-TWG, and the 12 facilities to draft and adapt the national HCAI surveillance protocol and draft SOPs for adoption to pilot HCAI surveillance at each facility.

In **Tanzania**, to support MOHCDGEC in developing an M&E system for HF-based IPC programs, MTaPS provided technical assistance to develop a national IPC M&E framework, which included creating indicators to monitor the IPC program and integrating them into the HMIS (i.e., DHIS2). Incorporating indicators that HFs report to MOHCDGEC through DHIS2 is crucial for planning supportive supervision and mentorship and implementing continuous improvement initiatives countrywide. Additionally, during PY4, MTaPS worked with MOH to develop HAI-surveillance guidelines and job aids that HFs are using to identify, classify, and monitor HAIs, specifically SSI, according to WHO recommendations.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED: EXAMPLES FROM TWO COUNTRIES

In collaboration with the DGSV, FAO, and other partners, MTaPS **Burkina Faso** supported the development of guidelines for AMU in the animal sector. To build an understanding of and compliance to the guidelines, MTaPS supported DGSV in developing a training package and using it to facilitate TOT sessions. Furthermore, in PY4, MTaPS collaborated with FAO to help DGSV develop a draft ministerial order regulating and enforcing AMU in the animal sector and submitting it for approval and official endorsement by the Ministry of Agriculture, Animal Resources, and Fisheries.

In addition to their national-level work, MTaPS **Kenya** has worked closely with the CHMTs and CASICs in the four focus counties of Kisumu, Kilifi, Murang'a, and Nyeri. During PY2 and PY3, MTaPS collaborated with FAO and IDDS to help establish county AMR-TWGs and develop their work plans. Moreover, MTaPS provided technical assistance to design and implement AWaRe categorization of antibiotics in HFs in the 4 focus counties and collaborated with the 4 CHMTs to implement major AMS interventions at 22 HFs across the 4 counties, including addressing the inappropriate use of ceftriaxone, azithromycin, and amoxicillin. MTaPS also helped develop hospital guidelines for surgical antimicrobial prophylaxis and to manage common infections. During PY4, MTaPS continued to provide the four counties with technical assistance to update work plans, implement AWaRe categorization at HFs, and carry out AMS mid-term assessments in four facilities in Kilifi and Murang'a counties.

YEAR 4 ACHIEVEMENTS & RESULTS

Global activities: During FY22, MTaPS collaborated with USAID's Global Health Bureau Professional and Organizational Development project to upload the USAID GHeL AMR 1 course to the GHeL platform and to revise the AMR 2 course. Additionally, during FY22, MTaPS conducted 9 presentations on its work at 5 conferences in 3 different countries and published 10 success stories and blogs to its website. Finally, to commemorate WAAW in 2021, MTaPS supported 9 countries in planning and conducting WAAW activities as well as published a specific WAAW page on the MTaPS website highlighting areas of work and select activities. Over the course of the WAAW, this page received 389 unique link clicks with an average time view time of 4 minutes and 15 seconds.

Effective MSC-AMR: Over FY22, MTaPS supported routine MSC meetings in all 13 countries. MTaPS also supported the development of many key MSC-AMR governance documents, including the national multisectoral AMS plan in **Bangladesh**; the NAP-AMR in **Burkina Faso**; standard treatment guidelines in **Ethiopia**; IPC M&E Framework, National IPC Policy, and National IPC Strategic Plan 2021-2025 in **Kenya**; and the 2022 Multisectoral Health Security Action Plan in **Senegal**.

IPC improved and functional: During FY22, MTaPS helped develop major IPC documents, including the national IPC action plan and national HCAI surveillance protocol in **Cameroon**; the national IPC reference manual in **Ethiopia**; HAI surveillance guidelines/protocol, training materials, and SOPs in **Tanzania**; and IPC/AMS guidelines and IEC materials for the animal sector and the essential veterinary medicines list, developed in FY 21 in **Uganda**, which were launched in FY22. Baseline and/or repeat IPC assessments using the IPCAF and IPCAT-2 tools were conducted in nine countries during FY22.

Use of antimicrobial medicines optimized: Over the past year, MTaPS **Bangladesh, Nigeria, and Tanzania** completed rapid assessments of regulations, policies, and supply chain governance related to antimicrobials in both the human and animal health sectors; in **Uganda**, MTaPS assessed existing systems for monitoring antibiotics. New DTCs were established in **Cameroon** and **DRC** during FY22, and existing DTCs were supported in five countries. Important governance documents, such as a ministerial order regulating AMU in the animal sector in **Burkina Faso**, the Jaramogi Oginga Odinga Teaching & Referral Hospital formulary incorporating AWARe categorization in **Kenya**, a regulation limiting antimicrobials to prescription-only status in **Mozambique**, the National AMS OH plan in **Nigeria**, and the national hospital formulary template in **Tanzania** were developed over the last 12 months.

QUARTER 4 ACHIEVEMENTS & RESULTS

EFFECTIVE MSC-AMR

Strengthening MSC governance structures and functions: In **Cameroon**, MTaPS supported a two-day workshop for 41 key stakeholders to review and update the OHP regulatory framework. To build buy-in, MTaPS **Ethiopia** supported the Addis Ababa City Administration Health Bureau and MOH in conducting a workshop to popularize and cascade the NAP-AMR to key stakeholders. The workshop concluded with the development of a draft regional operational plan aligned with the NAP-AMR.

Holding multisectoral meetings or activities: During this quarter, MTaPS supported routine MSC meetings in **Burkina Faso, Côte d'Ivoire, Ethiopia, Kenya, Mali, Mozambique, Nigeria, and Tanzania**. At an MTaPS-supported meeting of the AMR Secretariat in **Côte d'Ivoire**, participants reduced the size of the AMR MSC to facilitate its incorporation into the OHP, and MTaPS presented results of the TrACSS that took place earlier in the quarter. In the **DRC**, MTaPS supported the DPM in organizing supervision visits to three selected farms to assess AMU.

Drafting or updating multisectoral policies, plans, or guidelines: During this quarter, MTaPS supported the review of existing and expiring NAP-AMRs in **Kenya, Mali, Nigeria, and Tanzania**. Based on the outcomes of the review in **Tanzania**, MTaPS collaborated with the MSC team to draft the NAP AMR 2023-2028 using WHO guidance. In **Bangladesh**, MTaPS collaborated with CDC to use a stakeholder consultation process to draft the national multisectoral AMS plan and the costed operational plan for the NAP-ARC.

IPC IMPROVED AND FUNCTIONAL

Strengthening facility IPC governance structures and functions: In **Ethiopia**, MTaPS supported baseline IPC assessments using the national IPC-FLAT tool at five MTaPS supported facilities. The assessment results were used to inform draft IPC facility action plans, which are currently awaiting endorsement by hospital management teams. MTaPS **Uganda** supported the MAAIF in conducting a situational analysis of IPC at the community and sub-national levels and in disseminating the results. Additionally, MTaPS **Uganda** helped draft and validate the national IPC plan for the agricultural sector.

Developing and implementing IPC policy and guidance documents: During a five-day workshop organized by DPS, the Department for the Control of Disease, Epidemics, and Pandemics, and IDDS and supported by MTaPS **Cameroon**, participants drafted a national HCAI surveillance protocol, including data collection tools. The guideline will be used to both standardize HCAI surveillance and estimate the burden of HCAI in Cameroon. MTaPS **Côte d'Ivoire** supported the IPC-TWG to organize meetings and a workshop to initiate the process to develop, validate, and integrate IPC indicators into the DHIS2. At a workshop attended by 20 experts, MTaPS **Ethiopia** provided technical assistance to finalize the IPC reference manual and to standardize the IPC training materials based on CPD program requirements. In **Kenya**, MTaPS supported the review and revision of IPC and AMR M&E indicators based on lessons learned in pilots in two MTaPS-supported counties and helped develop and disseminate SOPs on cleaning and disinfection, linen management, and reprocessing reusable medical devices. Informed by the IPACT2 and IPCAF assessment results, MTaPS **Mali** collaborated with WHO and GCMN-RAM to develop a national IPC action plan. This is the first IPC action plan in Mali that integrates all IPC core components recommended by WHO.

Developing individual and local training capacities: MTaPS **Bangladesh** trained 150 HCWs on IPC at 5 MTaPS-supported facilities to increase the participants' adherence to IPC standards. In collaboration with the IPC TWG, MTaPS **Côte d'Ivoire** supported training for 30 HCPs from 2 private facilities to build their capacity to implement IPC practices. To build sustainability, MTaPS **Kenya** supported a workshop for the National Nurses Association of Kenya to draft a framework for their training academy including integrating IPC and AMS modules. MTaPS **Mozambique** helped the HF IPC committees at 3 MTaPS-supported hospitals conduct a training on implementing HAI data collection in each hospital department and developing HAI monitoring plans. In **Nigeria**, MTaPS supported 41 HCPs from 5 facilities in Kebbi and Enugu states in completing a training on IPC and developing facility plans. MTaPS **Senegal** provided technical assistance to the DQSHH to train 27 regional supervisors on the newly developed IPC supervision checklist to increase their capacity to conduct IPC supervision activities at HFs and increase sustainability. Additionally, as part of the process of revising ICCs in **Senegal**, MTaPS supported the DQSHH in training 130 ICC members on IPC, who then cascaded the training to a further 291 HCWs and administration support staff. To enhance reporting of quality data into the DHIS2, MTaPS **Tanzania** engaged 10 supported facilities on using IPC M&E tools, clarifying the meaning and importance of the indicators, and reporting.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Developing and implementing AMS policies, plans, and guidance documents, including AWaRe classification: To develop care providers' capacity to contain AMR, MTaPS **Bangladesh** supported the CDC and QI Secretariat to finalize the national AMS guidelines for human health and develop training modules on AMS and the STGs. This quarter, MTaPS **Ethiopia** provided technical assistance in the

review, design, and printing of an STG implementation manual and the review of the pharmacy chapter of the Ethiopian Hospital Services Transformation Guideline. This document's revision provided a good opportunity to institutionalize AMS programming in hospitals by including it in the update as one of the standards for hospital services. MTaPS **Kenya** provided technical assistance for the development and review of many key AMS governance documents this quarter, including the national AMC tool; the Kenya National Medicines Formulary; the Guidelines for the Essential Health Products and Technologies Lists; and AWARe practical guides targeting hospitals, primary HFs, and community pharmacies. At a five-day workshop in **Mozambique**, MTaPS proposed a process for the country to adopt the WHO AWARe classification to finalize the country's national antibiotics list. MTaPS **Tanzania** conducted a rapid situational analysis of AMS policies in the human and animal sectors to identify gaps that affect effective AMS implementation, with findings incorporated into the draft NAP-AMR. Additionally, this quarter, MTaPS **Tanzania** supported finalization of the national hospital formulary template, which has now been rolled out to hospitals to develop or improve their own hospital formularies. In **Uganda**, MTaPS helped NDA develop many major AMC surveillance documents and tools, including a web-based application that will enable the routine collection of AMC data at the national level and a manual for national AMC surveillance.

Assessing AMS capacity at the national and local levels and developing action plans: In **Burkina Faso**, MTaPS collaborated with DPH to support DTC members in conducting a PPS on antibiotic consumption and use at their regional hospital. The survey found that over 77% of 176 hospitalized patients were being treated with antibiotics. Similarly, MTaPS **Nigeria** supported the training of 14 AMS team members from the 7 MTaPS-supported facilities on how to conduct an AMU PPS. The trainees subsequently conducted the antimicrobial PPS in each of the seven facilities and will use the results to plan interventions and update facility work plans.

Strengthening individual and local capacity: MTaPS **Côte d'Ivoire** supported the AMS-TWG in training 21 HCPs from 1 facility on AMS and DTC functions to build DTC capacity to implement AMS activities. To improve hospital staff awareness and build their knowledge and skill on AMS, MTaPS **Ethiopia** supported the MOH/PMED in conducting a series of trainings for 125 HCPs at 4 MTaPS-supported facilities, including development draft action plans. Additionally, in collaboration with the FAO, MTaPS **Ethiopia** conducted a first-of-its-kind AMS training for 22 veterinary professionals to improve KAP of animal health practitioners on AMS and to advocate for the AMR strategy to animal health leaders. In **Mali**, MTaPS helped the DPM develop a DTC training toolkit, which will be available to train health professionals and will contribute to the implementation of AMS program activities, including monitoring AMU and education/ communication. MTaPS **Uganda** collaborated with the Mak-BRC to support the National Council of Higher Education and the health professional bodies to revise pre-service medical curriculums by incorporating AMR and health security content through three stakeholder engagement workshops. Additionally, MTaPS **Uganda** supported the NAMRSC to establish the National Student AMR Charter, which will serve as a platform for coordinating student activities on AMR.

BEST PRACTICES/LESSONS LEARNED

- Including national counterparts in activity planning and implementation increases the country's ownership of activities and improves the overall success of MTaPS interventions.

- Baseline HF IPC assessments should be conducted by experienced facilitators to ensure the validity of their results and to enhance IPC teams' ability to conduct follow-up assessments.
- Merely developing policy documents is not enough. It is also necessary to train local stakeholders on their use to support their implementation.

ACTIVITIES & 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	<ul style="list-style-type: none"> ■ Further revise and upload the GHeL AMR (part 2) course after receiving USAID feedback ■ Present at the APHA 2022 meeting in November in Boston ■ Address USAID comments on the draft year-5 GHSA country work plans
MSC	<ul style="list-style-type: none"> ■ Continue facilitating meetings of MSC-AMR bodies and/or their TWGs (ET, KN, ML, MZ, TZ, UG) ■ Support WAAW 2022 activities (BD, BF, CM, CI, ET, KN, ML, MZ, UG) ■ Review the NAP-AMR and its associated M&E plan (ML) ■ Begin developing a new NAP-AMR (NG) ■ Publish the third edition of the biannual AMS newsletter (UG)
IPC	<ul style="list-style-type: none"> ■ Build the capacity of the MOH to provide IPC training to HCWs (ET) ■ Support national roll-out of the IPC M&E framework (KN) ■ Help integrate IPC and AMS modules in the NNAK academy implementation framework (KN) ■ Adapt the national IPC guidelines and train HCWs on them at supported facilities (NG) ■ Strengthen journalists' capacity to advocate for IPC (TZ) ■ Launch the national IPC guidelines for the agricultural sector (UG)
AMS	<ul style="list-style-type: none"> ■ Strengthen AMS implementation at targeted HFs (ET) ■ Support roll-out of the validated national PPS tool (KN) ■ Develop the national AMC/AMU data collection tool (KN) ■ Disseminate the DTC training toolkit (ML) ■ Categorize antibiotics using AWaRe (NG) ■ Publish and disseminate a national report on AMC (UG)

B. COVID-19

COVID-19 RESPONSE AND VACCINE INTRODUCTION

In Q4 FY22, MTaPS supported the governments in 13 countries to strengthen the response to COVID-19 threats and plan, deploy, administer, and monitor the safety of COVID-19 vaccines. Madagascar became the 13th MTaPS country in Q4 to receive COVID-19 funding, with the MTaPS scoping and work planning visit conducted in September. COVID-19 remains a public threat in all 13 countries and requires continuous efforts for maintaining the quality and safety of health services through better IPC, uninterrupted supply of IPC and COVID-related products, and rapid and safe vaccine introduction. Vaccines against COVID-19 are available in all 13 countries, and while some MTaPS countries are meeting or getting closer to their vaccination targets, in others the rate of uptake and equitable access remains a challenge. The share of the people vaccinated with at least one dose in the MTaPS-supported countries ranges from 78% in Bangladesh and 68% in Rwanda to just 5.9% in Cameroon and 9.3% in Senegal. Careful vaccination planning, reaching out to vulnerable and remote populations, active promotion of vaccine safety monitoring and evidence-based information, and engagement of private-sector providers are among the tasks performed by MTaPS.

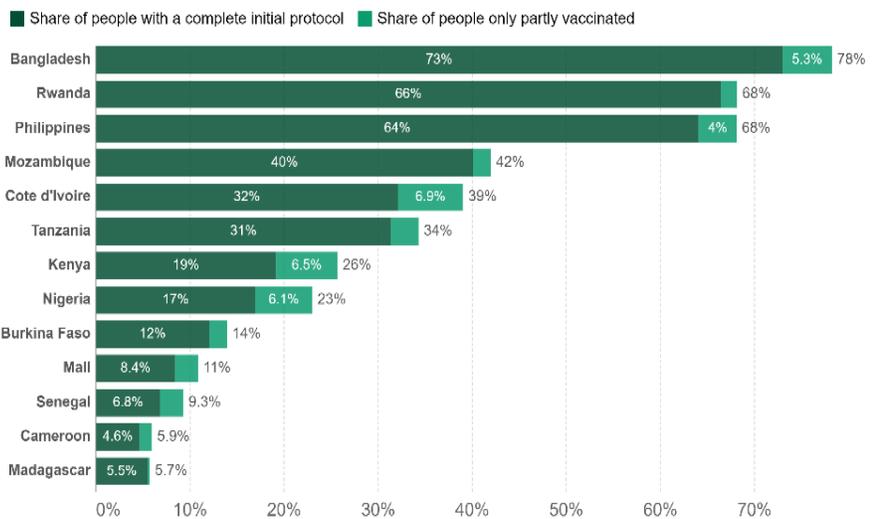
COVID-19 funded countries:

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

In Q4, MTaPS was actively supporting governments and national stakeholders using dedicated funding streams CNI08, CNI64, CNI8, CN31, and CN220 through the American Rescue Plan Act. MTaPS also expanded its COVID-19-related scope to include the support of governments and IPs for establishing COVID-19 vaccine manufacturing in Kenya and Rwanda and for broad engagement of private-sector providers (pharmacies and clinics) to increase equitable access to and uptake of COVID-19 vaccines in Nigeria.

Share of people vaccinated against COVID-19, Oct 5, 2022

Our World in Data



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.

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

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

- Result Area 1.2: Cold Chain and Supply Logistics
- Result Area 1.3: Human Resources for Health
- Result Area 1.4: Service Delivery
- Result Area 1.5: Pharmacovigilance and Safety Monitoring

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

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

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

Table 1. MTaPS COVID-19 Q4 FY22 indicators (detailed breakdown can be found in Annex 3)

Indicator and Disaggregation		Q4 FY22	FY22	Cumulative (March 2020–September 2022)
Objective 1. Accelerate widespread and equitable access to and delivery of safe and effective COVID-19 vaccinations				
0.3 (CV.1.3-3) Number of people trained on COVID-19 vaccine-related topics with MTaPS' support				
# of people trained		1480	4229	5579*
Sex	Male	675	2216	3052
	Female	805	2013	2527
	Unknown sex	0	0	0
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		608	5,372	6733
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 health facilities where MTaPS provided support for IPC and/or water, sanitation, and hygiene (WASH) for COVID-19				
# of health facilities		473	1,725	5,725
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		1,216	3,947	46,141
Sex	Male	557	1,985	20,444
	Female	659	1,962	25,697
	Unknown sex	0	0	0
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		10	57	76

*The value indicates the number of people trained since April 2021, when data collection started on this indicator.

COVID-19 IMMUNIZATION COSTING

OVERVIEW

Data on the actual costs of delivering COVID-19 vaccines in LMICs are limited. As the supply of vaccines increases, it is important to know how much is spent to deliver the vaccine to inform strategies and plans and identify funding sources and gaps. There are some resources, such as tools and guidance developed by 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.¹ 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 produced a single estimate of USD 1.41 per dose. Importantly, the COVAX Working Group also limited its early cost estimates work to 20% coverage of the population even though coverage rates in LMICs continue to languish far below 20%. It is important to build a model that takes a broader perspective on how and where the population will get vaccinated. While existing data, including pre-COVID-19, on the costs of routine immunization, immunization campaigns, and other health campaigns can be used to generate plausible estimates of these costs, targeted data collection efforts are necessary to refine these estimates and ensure that they remain grounded in the realities faced by LMICs.

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 (USD 1.66 per dose² in Advance Market Commitment countries compared with USD 1.45–1.50 per dose for routine childhood vaccines in LMICs). Note that this estimate assumes that the existing health systems will be leveraged, and the costs 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 updated in December 2021 and January, March, May, and June 2022 with new data on global vaccinations. A major adaptation to the model expanded 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 COVDP working group on costing and financing and will contribute toward developing a single set of cost estimates for various global stakeholders.

¹ <https://ourworldindata.org/covid-vaccinations>

² Griffiths U, Adjagba A, Attaran M, Hutubessy R, Van de Maele N, Yeung K, et al. Costs of delivering COVID-19 vaccine in 92 AMC countries Updated estimates from COVAX Working Group on delivery costs. UNICEF; 2021.

Further, MTaPS conducted due diligence in gathering more detailed vaccine delivery expenditure data in 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.

The program adopts a bottom-up approach to complement existing top-down cost estimates. In 2021, MTaPS designed a protocol for the country studies based on *How to Cost Immunization Programs*—WHO's COVID-19 vaccine introduction and deployment costing tool—and ThinkWell's COVID-19 Vaccine Delivery Costing protocol. MTaPS analyzed the landscape of costing work and received approval to commence 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. The study protocol and data collection forms were also completed. MTaPS submitted IRB approval to the National Health Sciences Research Committee 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 National Health Sciences Research Committee approval is received. In Madagascar, the research protocol was submitted to the National Biomedical Research Ethics Committee in Madagascar. While awaiting approval, the team is gathering off-the-shelf data from the USAID Accessible Continuum of Care and Essential Services Sustained Program, as MTaPS actively participated in the vaccination strategy in Madagascar. An extension request for the activity was submitted in late June to USAID to ensure sufficient time to collect and analyze data at the country level.

Global estimates require assumptions that 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 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 increasing interest by countries and donors 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.

YEAR 4 ACHIEVEMENTS & RESULTS

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 updated with new data on global vaccinations. MTaPS is also now formally a part of the COVDP working group on costing and financing and will contribute toward developing a single set of cost estimates for various global stakeholders.

Further, MTaPS launched a bottom-up costing program to complement existing top-down cost estimates. MTaPS had 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. The study protocol and data collection forms were also completed.

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. 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.

With increasing interest by countries and donors 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 4 ACHIEVEMENTS & RESULTS

We continue to experience delays with starting data collection in Malawi and Madagascar. Countries continue to experience operational challenges due to COVID-19. The IRB process has been delayed due to local challenges with convening experts in a timely manner. However, in Q4, we made significant progress in obtaining ethical approvals. In Madagascar, the MTaPS COVID-19 costing study received ethical clearance from the National Biomedical Research Ethics Committee—a determination that the study does not constitute biomedical research. As such, MTaPS will proceed to seek administrative clearance from the Secretary General of the MOH to commence data collection. In Malawi, the IRB committee was severely disrupted from the continuing effects of COVID-19. The committee's declining fiscal health resulted in fewer meetings being conducted and increased IRB fees to research projects. MTaPS activity is being scheduled for the next IRB meeting – schedule to be determined.

MTaPS completed the second global survey (activity 2.3) in April 2022. In this quarter, MTaPS led the development of a manuscript to report on the findings in a peer-reviewed journal. Co-authors and contributors for this manuscript include USAID, UNICEF, WHO, Harvard, and the Gates Foundation. The preliminary results of this work were presented to the USAID Vaccine Access Delivery Initiative (VADI) leadership on August 31, 2022.

Since becoming part of the COVDP and COVDP costing and financing working group in March 2022, MTaPS has collaborated with the global community on estimating the cost to deliver COVID-19 vaccinations in 133 LMICs. MTaPS continues to work closely with members of the working group to develop estimates on the resources needed to deliver COVID-19 vaccinations globally in three scenarios (country coverage targets using existing delivery ability, reaching country coverage targets with increased delivery ability, and reaching aspirational global targets). MTaPS contributes heavily across three areas: cost modeling with Harvard and UNICEF, identifying the delivery modality split in the 133 countries, and exploring the share of labor reallocation. Throughout the process, MTaPS is drawing heavily from our insights working in COVID-19 delivery in-country, desk reviews, and the two global surveys. MTaPS reported initial progress and assumptions to VADI leadership on August 31, 2022, and shared initial estimates with WHO and COVDP leadership on September 11, 2022.

BEST PRACTICES/LESSONS LEARNED

- Countries continue to experience operational challenges due to COVID-19. The IRB process has been delayed due to countries' inability to convene experts in a timely manner. Further, in some countries COVID-19 disrupts the financial health of existing processes and passes on the increased financial pressure to clients (e.g., increased IRB fees to research projects).
- Collaboration between MTaPS and the COVID-19 Vaccine Delivery Partnership Working Group in Costing and Financing leads to stronger models with improved technical precision and rigor. However, as with any activity that involves a large number of stakeholders, more time is needed to ensure collaboration and effective communication can be established.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
<p><i>1.1</i> Collect country-level secondary data and estimate the costs of delivering COVID-19 vaccines in LMICs</p> <ul style="list-style-type: none"> ■ Next quarter we plan to start (and complete) cost data collection in Malawi and Madagascar. 	December 2022
<p><i>2.1</i> Analyze country-level secondary data to estimate the costs of delivering COVID-19 vaccines in LMICs</p> <ul style="list-style-type: none"> ■ Next quarter we plan to start initial data cleaning and gathering preliminary insights from the data collection in Malawi and Madagascar. 	December 2022
<p><i>2.2</i> Adapt the Harvard/COVAX micro-costing model with structures and parameters fit to estimate the global and national costs of delivering COVID-19 vaccines</p> <ul style="list-style-type: none"> ■ Model adaptation is complete and next quarter will focus on reporting/writing results. 	December 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 maternal, newborn, and child 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 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, the DNF, in streamlining registration of MNCH medicines by using findings and recommendations from the mapping. During 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 the DNF. In Q3, MTaPS supported the ANARME to conduct a workshop on enhancing registration procedures, including prioritization of MNCH medicines and quality issues of oxytocin, with 70 representatives from manufacturers, importers, and distributors. At the 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 are the focus of MTaPS' follow-on support to SADC in PY4.

To strengthen the regulation of medical devices and to ensure their quality, safety, and efficacy, MTaPS is working with the 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: PSS global learning agenda advanced for MNCH

In PY1, MTaPS seconded a pharmaceutical advisor to the GFF who developed resources for GFF country focal points and country teams on management of medicines and supplies, including guidance documents on managing medicines and quality in procurement and webinars to stimulate thinking in country teams of the importance of a robust pharmaceutical system to support MNCH interventions and prioritize such a system in the country investment case. As a result, a section on management of medicines is included in the GFF annual report.

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

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

Recognizing that most MNCH medicines are essential and are procured by national governments, sufficient measures must be in place to ensure their quality, particularly in decentralized settings. In PY2, MTaPS described the subnational procurement practices in Liberia, Nigeria, and Tanzania in a technical brief that highlighted key areas that should be considered to ensure the quality of products procured. Building on this work, MTaPS conducted a detailed mapping of subnational procurement in four provinces of Nepal, 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 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 MNCH improved

In PY2, MTaPS updated the 2016 forecasting supplement for lifesaving essential reproductive, maternal, newborn, and child health (RMNCH) commodities, as applying best practices in 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. The [forecasting supplement](#) has been finalized and is now available in English and French. A series of webinars was held in Q3 to disseminate the resources to GHSC-PSM country teams, the [Maternal Health Supplies Caucus](#), and the [Child Health Task Force](#).

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](#) with wide stakeholder engagement to address bottlenecks in access to and appropriate use of amoxicillin and gentamicin, which were held in PY4 Q3.

Oxygen is an essential medical product for children and newborns suffering from hypoxia due to pneumonia and other conditions; it is also important for treating COVID-19. A previous MTaPS mapping of partner support in the respiratory ecosystem found little support to strengthen countries' regulatory systems that ensure appropriate administration of quality oxygen. MTaPS also noted discrepancies in technical packages of medical devices and their technical specifications for the respiratory ecosystem from different global guidance documents. After discussions with WHO and USAID in PY3 Q4, it was agreed that MTaPS would develop guidelines for the quality assurance of oxygen to address that gap and complement other operational guidance that WHO is developing on pressure swing adsorption oxygen plants. In PY4 Q1, MTaPS shared a draft scope of the activity and outline for the document on quality assurance of oxygen through regulation and other strategies with WHO and held discussions clarifying the activity with WHO and USAID in Q2.

YEAR 4 ACHIEVEMENTS & RESULTS

In PY4, MTaPS finalized the updating of the forecasting supplement for lifesaving essential RMNCH commodities. The resource package is available in French and English. Teams from five countries used the document, and it was disseminated to more than 160 people and 8 country teams during 3 webinars. Applying best practices in quantification of RMNCH medical products directly affects product availability and has the potential to save the lives of women, newborns, and children.

In Mozambique in PY4, MTaPS supported capacity building in assessment of bioequivalence studies and increased visibility and transparency of the registration procedures to manufacturers, importers, and distributors. This is expected to lead to a more efficient registration process, thereby increasing access to safe and quality MNCH medicines on the market.

In Nepal in PY4, MTaPS supported the MOH to understand the challenges of subnational procurement of medicines, including for MNCH, and to identify and include in annual budgets and planning key interventions to improve quality of and access to medicines procured at the subnational levels, including implementation of a framework contract, capacity building in procurement, strengthening of SCM, and strengthening and expansion of the eLMIS.

QUARTER 4 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE INCREASED

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

MTaPS is developing a summary brief of the key messages and action points in the 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 will make the key messages from the discussion paper more readily available to USAID missions and partner organizations and facilitate their application by NGOs and governments. MTAps has finalized the recruiting process for the principal consultant who authored the paper.

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

Support the streamlining of registration of MNCH medical products in at least one country

MTaPS completed the report of the workshop in Mozambique with manufacturers, importers, and distributors on enhancing registration procedures as well as a [success story on this activity](#). The workshop gave applicants an opportunity to ask questions and raise challenges related to registration. In response, ANARME 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. A technical highlight on the bioequivalence assessment training conducted in Q1 was completed.

The report of the SADC knowledge exchange with regulators from 12 of the 16 SADC member states conducted in Q2 was finalized and circulated to participants for information and follow-up action (e.g., that NMRAs advocate for prioritization of MNCH medicines). 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.

Improve regulation of MNCH medical devices at regional level

MTaPS shared the draft of the considerations for regulating MNCH medical devices with technical experts at WHO, NEST, MDRC, FDA, and PQM+ and the AMDF leadership team and is compiling comments and input for the consultant to review and develop the next version of the document. The next phase of capacity building is planned for November. The TOR for the session has been shared with the AMDF leadership team for comment.

Create a center of excellence for building capacity for regulation of MNCH medical devices in a region

MTaPS is supporting the creation of a COE for regulation of medical devices in Africa. COEs are designated by AUDA-NEPAD based on the capacity and resources in a given country to deliver a particular regulatory service and build capacity in the region. MTAps will provide technical support to the selected agency and coach it to provide capacity building to other countries in the region. In Q4, MTAps shared a concept note on the proposed activity with AUDA-NEPAD and AMDF and is awaiting feedback to start planning and discussing the selection of the center location.

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

Following on previous collaborative work with the SADC and the registration mapping, MTAps is supporting a regional approach to support NRAs to streamline registration processes in countries, particularly for MNCH medicines, targeting bottlenecks and inefficiencies. In Q4, MTAps shared with the

SADC project coordinator a concept note of the proposed activity to support the SADC region to streamline registration of MNCH medicines. MTaPS revised the activity after discussions with the coordinator to focus on strengthening a joint assessment for MNCH medicines in the region and providing support to prioritize registration of MNCH medicines in specific countries in the region.

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

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 were finalized and widely disseminated in country with a two-page brief of the recommendations that can be used for advocacy. MTaPS has been supporting the DDA's and DOHS' management divisions to incorporate next steps from the workshop into annual plans and budgets, particularly implementation of a framework contract, capacity building in procurement, and strengthening of SCM and the eLMIS. The team presented a PSS in practice knowledge exchange on subnational procurement practices in Nepal with more than 50 participants in attendance and published a [news story](#). This activity is now complete.

Provide global technical leadership on pharmaceutical systems issues related to maternal, newborn, and child health

The Every Newborn Action Plan (ENAP) commodities group was established by WHO, UNICEF, and USAID to help improve care of small and sick newborns with a specific focus on the use of medicines, medical devices, and consumables. In Q4, MTaPS participated in the ENAP commodities group meetings and supported group co-chairs USAID and WHO to coordinate the medicines subgroup. MTaPS is mapping medicines for newborns to develop a master list to inform the mapping against country STGs and EMLs and classify the medicines into "essential" and "desirable" as a main deliverable.

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

Improve systems for managing and administering oxygen and other medical devices of the respiratory ecosystem

MTaPS shared a revised scope and outline of the document on quality assurance of oxygen, responding to comments received from WHO in Q3, and proposed a TOR for a consultant to work on the activity.

Validation of the RMNCH forecasting supplement

The final [RMNCH forecasting package](#) is now available in English and French. This activity is complete.

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

This activity follows on from activity 3.3.1 of PY2. The stakeholder consultative meetings on addressing the bottlenecks to access to and appropriate use of amoxicillin and gentamicin were completed in May 2022, completing the PY3 activity. MTaPS is collaborating with GHSC-PSM and PQM+ to consolidate key points from the group work from the consultative meetings and develop a draft of the call-to-action

paper to provide a set of actionable solutions to countries. The iterative process is being supported by a technical writer and communications expert. The key messages are being finalized.

BEST PRACTICES/LESSONS LEARNED

- Collaboration among GHSC-PSM, MTaPS, and PQM+ on the consultative meetings and call-to-action paper to improve access to and use of amoxicillin and gentamicin has allowed inclusion of different perspectives.
- Support to the NRA in Mozambique facilitated dialogue with manufacturers, importers, and distributors and a better understanding of the registration process to facilitate adherence and compliance to the procedures and streamline the registration of medicines, including for MNCH.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Year 2, activity 5.2.1 and year 3 activity 2.1.2: Finalize the scope of the oxygen QA guidance document with WHO and recruit consultant for the activity	October–December 2022
Year 3, activity 2.1.1: Finalize the document on considerations for regulating medical devices and conduct a capacity building session with regulators from one region	October–December 2022
Year 4, activity 1.3.1: Develop first draft of the summary on key points for engaging civil society	October–November 2022
Year 4, activity 2.1.1: Finalize the concept note with AMDF and plan and start to implement the support to the center of excellence	October–December 2022
Year 4, activity 2.1.2: Finalize the concept note with SADC and plan and start to implement the support to streamline registration at the regional level	October–December 2022
Year 4, activity 3.1.2: Finalize the list of medicines for small and sick newborns classified into “essential” and “desirable” in a consultative process	October–December 2022
Year 4, activity 5.1.1: Finalize and disseminate the call-to-action paper on improving access to amoxicillin and gentamicin	October–December 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. As a core partner in FP 2030, it is working with the global community to reach an additional 120 million women and girls with FP information, commodities, and services.³ USAID's CSL Division promotes the long-term availability of a range of high-quality contraceptives, condoms, and other essential RH supplies, and it 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 products. The program aims to do this by analyzing and recommending approaches for increasing financing and strengthening supply and logistics services to improve the availability and accessibility of FP/RH products.

MTaPS' strategic approach is premised on the notion that implementing a systems-strengthening approach in a country will lead to better commodity security. If MTaPS effectively engages with the various entities in a country (e.g., the private sector, providers, and other stakeholders in the community) through targeted advocacy and evidence-based technical assistance, the following objective will be achieved: increased government financing of FP/RH commodities, leading to improved availability of and access to these commodities at SDPs and in communities.

CUMULATIVE PERFORMANCE TO DATE

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

MTaPS conducted a PEA in Uganda to examine the factors that influence domestic financing of FP products and associated supply chain costs that may shape decisions around increasing government financing within its decentralized health system. The PEA enables the 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 road map plan aimed at supporting the GOU to achieve self-reliance in supply chain and essential medicines and supplies being supported by the USAID/Strengthening Supply Chain Systems Activity. The PEA also provides an entry point for looking at factors that influence financing decisions on essential medicines and health products more broadly, as government-funded FP products are managed through the essential medicines and health products supply system. 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.

From the analysis of the desk review and interview data, MTaPS developed a policy brief entitled *Increasing government financing and resource allocation for FP commodities and supply chain operations in*

³ 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

Uganda: A Political Economy Analysis, which was finalized following a stakeholder validation meeting. MTaPS also developed a PEA methods module that will allow others to apply the streamlined PEA methodology that the MTaPS team found effective.

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 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 cost-benefit analysis 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 each country. MTaPS collaborated with PSA to facilitate virtual study result dissemination workshops for Nigeria (with more than 45 participants) and the Philippines (with more than 75 participants) in March 2022. Comments and feedback from the workshops were incorporated and used for next steps and implementation.

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

MTaPS developed a thought leadership paper on using retail pharmacies as a source of FP products and other essential medicines for public-sector clients in LMICs. The paper identified and documented examples of high-income countries and LMICs using private-sector outlets to serve public-sector clients with FP and other essential medicines. It also assessed how these private-sector engagements are operationalized. MTaPS developed an analytical framework to guide the assessment on how the public sector in high-income countries incorporates retail pharmacies in the provision of FP and essential medicines. The analytical framework also enabled MTaPS to gather evidence on how high-income countries mitigate 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. The final version of the thought leadership paper was disseminated in an internal USAID webinar and a global learning series webinar. It is now available on MTaPS' website and highlights 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.

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

MTaPS developed the protocol for the randomized control trial to evaluate the efficacy of a digital tracking and workflow management tool (Open SRP) to decrease unmet demand and improve continuous use of contraceptives at the community level. Luapula province was defined as the study location. MTaPS also recruited a vendor to develop and configure the software.

DISABILITY INCLUSION IN THE HEALTH SUPPLY CHAIN WORKFORCE

MTaPS and USAID formed a TWG to facilitate and guide the study 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. MTaPS also developed a framework for country selection for a case study.

YEAR 4 ACHIEVEMENTS & RESULTS

In Uganda, MTaPS completed the PEA and the policy brief entitled *Increasing government financing and resource allocation for FP commodities and supply chain operations in Uganda: A Political Economy Analysis*, as well as a PEA methods module for a streamlined PEA. Stakeholders in Uganda are using the PEA in the development and implementation of a 10-year supply chain road map plan aimed at supporting the GOU to achieve self-reliance in supply chain and essential medicines and supplies.

Through the 4PL PEA, operational capability assessment, and cost-benefit analysis, MTaPS generated an evidence-based advocacy tool and outsourcing decision framework. These tools could help public-sector decision makers in Nigeria, the Philippines, and other countries to navigate critical factors and steps to leverage private sector 4PL providers in supporting the public health supply chain.

To further the global discussion on the role of private pharmacies as a source of FP products and other essential medicines, MTaPS developed and widely disseminated a thought leadership paper exploring the advantages and disadvantages of outsourcing medicines to private retail outlets.

QUARTER 4 ACHIEVEMENTS & RESULTS

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

MTaPS met with LHSS, which has been tasked with developing a primer on conducting PEA for supply chains. The Uganda PEA will feed into that development process. The policy brief and PEA methods module have now been finalized and circulated.

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

On July 14, 2022, MTaPS successfully facilitated a webinar on leveraging best practice 3PL or 4PL providers to USAID staff. The objective of the webinar was to share the results of the study and receive practical feedback. In addition, MTaPS received feedback from USAID on the Philippines and Nigeria reports. MTaPS shared the revised Philippines and Nigeria reports with USAID for final approval.

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 executed the contracts for Boston University School of Public Health and PSA. The team finalized the study protocol and submitted it for ethical review to the IRBs at Boston University Medical College and Excellence in Research and Ethics and Science Zambia (ERES). ERES approved the protocol and Boston University Medical College's decision is still pending. PSA is also pursuing a study approval from the Permanent Secretary in the Zambia MOH. MTaPS started stakeholder engagement in

Zambia and had a successful meeting with key stakeholders in the MOH, which resulted in ministry counterparts affirming their support for the activity, paving the way for the Permanent Secretary’s ultimate approval. The Chief Pharmacist will serve as the ministry’s point of contact for the activity.

MTaPS also identified a vendor—BlueCode, a Zambian information technology firm—for the OpenSRP development. The contract is with USAID for review and approval.

DISABILITY INCLUSION IN THE HEALTH SUPPLY CHAIN WORKFORCE

MTaPS held the first TWG on July 28 to introduce the activity. MTAps then recruited a consultant, who was onboarded in September to support the landscape analysis phase of the study. The consultant drafted a protocol for the landscape analysis, which the team discussed with the TWG at the second meeting on September 30. The team will use the feedback gathered to finalize the protocol, then proceed with implementation.

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

During this quarter, MTAps identified and contracted a partner, PSA, to support this activity. A project kickoff and alignment meeting between MTAps, the USAID/CSL team, and PSA was held. In addition, relevant local and international consultants, who will be recruited through PSA to work on the activity, have been identified and are being vetted in collaboration with the Nigeria MOH. MTAps has introduced both the 4PL activity and implementing partner, PSA, to the Nigeria National Product Supply Chain Management Program Director. An introductory meeting between the Nigeria National Product Supply Chain Management Program, MTAps, and PSA will be held early next quarter.

BEST PRACTICES/LESSONS LEARNED

In the Ugandan FP PEA activity, we have been 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. Their relationships with stakeholders have also been critical to success.

More educational presentations on 4PL are found to be important, as it is a fairly new concept in LMICs’ public health supply chain.

The retail pharmacy activity has highlighted that academic studies are an important first step to considering options in LMIC contexts but that more exploring is needed to explore the feasibility in a particular country setting.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
<i>Year 4, Activity 1</i>	
■ Finalize BlueCode’s contract and initiate OpenSRP development	December 2022
■ Continue stakeholder engagement at the provincial and district levels	
■ Finalize sample selection and preparation for baseline data collection	
<i>Year 4, Activity 2</i>	
■ Complete literature review	December 2022
■ Conduct stakeholder interviews	
■ Analyze findings and draft report	

Year 4, Activity 3

- Facilitate a meeting with Nigeria MOH and introduce the activity as well as PSA
- Participate in the recruitment of key personnel
- Start in-country activity implementation

December 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 African continent—especially in the wake of the COVID-19 pandemic—and has participated in advocacy initiatives for the creation of the African Medicines Agency for improved regulation of medical products in Africa. MTaPS also supported AUDA-NEPAD to conduct a quality review of the AMRH program management guidance tool 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. During the last quarter of FY22, MTaPS worked jointly with PQM+ to develop a guidance document providing a reference pathway for countries to digitalize their regulatory IMSs. A dissemination strategy for the advocacy brief, the minimum common standards, and pathway for digitalization of regulatory IMS was agreed upon by both programs.

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 during FY22. 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 to 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. MTaPS has submitted 67 global conference abstracts and at least 13 published peer-reviewed manuscripts.

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

MTaPS developed and successfully launched a policy and guideline document entitled Practical Guide for Systematic Priority Setting and HTA Introduction in LMICs, a road map that provides a stepwise approach for HTA implementation. MTaPS has also collaborated with the USAID LHSS project to develop an approach for tracking PE using the SHA2011 framework. The team drafted a PE tracking guide and, following pilots in two countries, MTaPS developed two policy briefs that will serve as resources for countries to capture population-per-capita PE per disease or drug therapeutic class more accurately.

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

MTaPS collaborated with the West African Health Organization and the 15 ECOWAS member states to develop and successfully launch a web-based platform for improving PV systems in the region. The platform will allow member states to share PV data and support the strengthening of PV systems in the region. MTaPS also completed a case study in Bangladesh to identify gaps in integration of IPC/WASH critical conditions into the quality of care and quality improvement tools and processes.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS, in collaboration with PQM+, successfully concluded a consultative process that yielded a list of minimum common standards for regulatory IMS. The standards will help guide NMRA on the standards they should prioritize to streamline their workflows and documentation of regulatory processes, ensure uniform data capture, and enable data exchange within and between NMRAs and other stakeholders.

MTaPS also successfully engaged 36 policymakers, managers, committee conveners, and chairs from 16 countries in a learning exchange on the prevention and management of COIs in national pharmaceutical systems. This was the first use of the *Managing Conflicts of Interest: A how-to guide for public pharmaceutical sector committees in low- and middle-income countries*, which was developed by the WHO Division of Medicines and Health Products in collaboration with MTaPS.⁴ As a result of the learning exchange, approximately half of the participants developed action plans and were able to take some preliminary steps toward improving the prevention and management of COIs in their local organization or setting.

The program has made substantive progress in engaging national stakeholders in assessments to help provide data and learnings for strengthening national pharmaceutical systems. MTaPS engaged national stakeholders in assessing the capacity and mandates of national PSUs in Côte d'Ivoire, Kenya and Nepal. This work will fill an important knowledge gap, providing evidence on the current structure and function of PSUs, how they have evolved over time, and the concomitant successes and challenges from this

⁴ WHO. (2022). *Managing conflicts of interest: a how-to guide for public pharmaceutical-sector committees in low- and middle-income countries*. Geneva: World Health Organization; 2022. License: CC BY-NC-SA 3.0 IGO. Available at <https://apps.who.int/iris/bitstream/handle/10665/363124/9789240057982-eng.pdf>

evolution. As importantly, the MOHs in these countries will be better informed regarding needed capacities, competencies, and resources for the PSU to enable it to fulfill its role and mandate and have a capacity-building plan for addressing critical gaps. Similarly, through the piloting of PSS Insight, MTaPS is generating evidence on pharmaceutical system performance and increasing data available for decision-making in Bangladesh, Nepal, Tanzania, and Uganda.

QUARTER 4 ACHIEVEMENTS & RESULTS

MTaPS successfully concluded the activity on the Common Standards for Regulatory IMS Tools in LMICs, producing a list of minimum common standards, a pathway document providing guidance for standards adoption, and an advocacy brief making the case for standards adoption. MTaPS also successfully concluded the learning exchange on the JLN for UHC platform aimed at providing practical guidance on preventing and managing COIs in the public pharmaceutical system in LMICs.

METHODOLOGY FOR ASSESSING THE ROLES OF NATIONAL PSUs AND THEIR CAPACITY TO FULFILL THEIR MANDATE

MTaPS submitted the protocol for ethical clearance in both Kenya and Côte d'Ivoire and received approval. The team also completed the desk review and stakeholder mapping, which it used as the basis for identifying KIs. Data collection is under way in Kenya and is anticipated to be completed in October. Stakeholder outreach is under way in Côte d'Ivoire so that the team can start KIs there. On the Nepal case study, the team finalized the protocol and submitted it to the Nepal Health Research Council for ethical clearance. A decision is pending.

Dissemination and rollout of common standards for Regulatory IMS Tools in LMICs

The team developed a comprehensive report on the entire consultative process with selected global, regional, and national stakeholders and included the identified minimum common standards for regulatory IMS. The advocacy brief with a call for action to adopt the identified common standards was also finalized. MTaPS collaborated with PQM+ to develop the guidance document outlining the pathway to digitalize regulatory functions, incorporating the common standards identified. A dissemination strategy involving communication of the identified common standards to target audiences through various listservs and meetings was agreed upon and will be implemented starting in October 2022.

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

The MTaPS team created a Wiki where it is continuously uploading the documentation for easier access and maintenance. The team has also drafted the interoperability document for PViMS and Pharmadex and has demonstrated interoperability of PViMS in the Philippines. MTaPS is drafting documentation on how to achieve this with Pharmadex 2. Additionally, a fully functional demo of Pharmadex 2 is available.

MEASURING PSS, INCLUDING ACCESS TO MEDICINE

Preliminary data collection for Uganda was completed this quarter, and the team is now drafting the country reports for Uganda and Tanzania. Preparations are under way for the data collection workshop in Nepal, which is now planned for mid-October to accommodate the availability of KIs. MTaPS completed the contracting and onboarding of a consultant in Bangladesh, and data collection will begin in

early October. The Request for Proposals for the software development work for pssinsight.org was finalized and circulated, and the team will evaluate proposals in early October.

PSS 101 COURSE

MTaPS contracted a consultant for the French version of PSS 101 and translation is under way. MTAps, in collaboration with PQM+, also conducted the September delivery of the USAID University course, which took place from September 12–16, with 28 participants from 13 countries. The final updates to the GHeL Governance in the Management of Medicines course were completed, and soft marketing of the course was undertaken. PSS 101 saw 198 certificates earned between April 3 and August 28, 2022. The Good Governance course saw 50 certificates earned between August 1 and 28, 2022.

PSS LEARNING EXCHANGE ON THE JLN FOR UHC

Following the three learning sessions in June, MTAps reviewed participants' draft action plans then convened a final session on August 16, where participants reported on their action plans and the steps they had taken towards implementation. Case studies from this cohort will be used in the COI management e-Learning course MTAps is developing and the WHO-led webinar on COI, which will be presented in October as part of USAID Asia Bureau work plan activities.

TESTING BEHAVIORAL NUDGES FOR AMS

In July, MTAps received ethics approval from Makerere University's School of Health Sciences Research and Ethics Committee. The team then prepared and submitted the Institutional Review Board (IRB) application to UNCST. They informed MTAps that MOH clearance is required before concluding their review. MTAps obtained a clearance letter from the MOH and added a coinvestigator from MOH as advised. Additionally, the principal investigator from Deloitte left the company, which required designating a new principal investigator from Deloitte. These changes required resubmission to the Makerere University's ethics committee at the end of September and upon receiving approval, the team will resubmit an amended version to UNCST. MTAps onboarded an in-country consultant and an intern to provide local support for the study and prepared a list of KIs for the study's phase I.

PROGRAM MANAGEMENT

MTaPS drafted a paper entitled "Moving from Assessments to Implementation: Promising Practices for Strengthening Antimicrobial Resistance Containment Capacity," which is currently under review at *Antimicrobial Resistance and Infection Control*. Also, MTAps received notifications of acceptances from the Seventh Global Symposium on Health Systems Research, the American Public Health Association, and American Society of Tropical Medicine and Hygiene annual meetings for individual abstracts:

- Health Systems Research 2022: 2/6 accepted (posters)
- American Public Health Association: 7/8 accepted (4 oral presentations and 3 posters)
- American Society of Tropical Medicine and Hygiene: 1/1 accepted (poster)

Please see Section 8D, Research, for more information on the various abstracts.

EXTENDED YEAR 3 ACTIVITIES

ROAD MAP FOR HTA INSTITUTIONALIZATION

Deep dive pilot testing of HTA road map. MTaPS developed a manuscript detailing a realistic review of how the HTA setup mechanism works: for whom and under what circumstances. The manuscript is under final review. The team also developed a survey to assess skills needed to perform HTA. Preliminary results show that stakeholders in Ethiopia do not have enough information on HTA. MTaPS, with support from the in-country consultant CREATE, developed a document outlining options for setting up an HTA agency in the Ethiopian context. This manuscript was shared with the MOH in Ethiopia per its request. The MOH also requested MTaPS' support in the road map contextualization process and a six-month extension to complete this task.

HTA institutionalization canvas as a companion document to the road map. The development of the HTA institutionalization is in progress. MTaPS also received USAID approval to extend the end date for this activity to be able to support the Government of Ethiopia as it aims to contextualize the HTA road map according to its needs and priorities.

IMPROVE PHARMACEUTICAL EXPENDITURE TRACKING AND USE OF EXPENDITURE DATA FOR DECISION-MAKING

The team drafted the brief reporting on the expenditure tracking pilot in Benin. The pilot found that total PE in 2020 was five times what was estimated through previous health accounts. The team also presented the findings to stakeholders in Benin.

SUPPORT CONSENSUS ON COMMON STANDARDS FOR REGULATORY IMSS IN LMICs AND DESIGN A SOFTWARE SUITE FOR NMRAS BASED ON THE STANDARDS

Activity 5b: Optimization and deployment of Pharmadex

MTaPS finalized the registration workflow in Nepal and is working to create this as a core workflow in the base version of Pharmadex to achieve the target of having all three modules available out of the box. The team also compiled the systems requirement specifications and configured a Google Data Studio dashboard with sample data connection to Pharmadex and PViMS.

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

After concluding the five-part webinar series in July, the team drafted a technical brief distilling the key insights for improving equitable access through the private sector.

INVESTIGATING THE USE OF INFORMATION FROM PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS (PMIS) FOR EVIDENCE-BASED DECISION-MAKING

In July, the MOH ERC requested that MTaPS submit a letter of support from ANARME for the study. This led to a series of discussions with stakeholders at ANARME. The team revamped its stakeholder engagement efforts and reintroduced the activity. ANARME agreed to support the study and in early September, provided the letter of support, which the team submitted to the ERC. The ERC's decision is still pending.

BEST PRACTICES/LESSONS LEARNED

- Two important lessons from the PE tracking guideline pilots are:
 - PE tracking may require more innovative methods than traditional health accounts data collection to enable understanding of the key variables and adequate disaggregation of expenditure data. Including pharmacists in the process is essential for facilitating efficient data collection, organization, and mapping.
 - PE tracking is a complicated process that involves large volumes of data. Sufficient time, proper organization, and teamwork are essential to execute the process.
- Including action plans in training and learning events is an easy and feasible approach for encouraging action-based learning. Requiring participants in the MTaPS-led learning exchange on COI to develop action plans was a very valuable learning experience for many participants and spurred preliminary action toward improving COI prevention and management in their contexts.
- Another key lesson from the learning exchange is catering to different tiers of participants to optimize reach and participants' experiences. Only approximately half of participants were fully engaged to the extent of developing action plans and requesting feedback to improve their technical approach and the feasibility of their plans. Other participants were satisfied with just being participants.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
<p>Activity 2.2.1: methodology for assessing the roles of national pharmaceutical services units (PSUs) and their capacity to fulfill their mandate</p> <ul style="list-style-type: none"> ■ Complete data collection in Kenya and start data analysis ■ Start data collection in Côte d'Ivoire ■ Initiate stakeholder outreach and data collection in Nepal pending ethics approval 	December 2022
<p>Activity 2.4.1.1: Dissemination and roll out of common standards</p> <ul style="list-style-type: none"> ■ Finalize the pathway document for digitalization of regulatory IMS and start implementation of the dissemination strategy 	October 2022
<p>Activity 3.3.1: Measuring PSS, including access to medicine</p> <ul style="list-style-type: none"> ■ Finalize country reports for Uganda and Tanzania ■ Conduct country workshop in Uganda ■ Complete data collection in Nepal and Bangladesh ■ Complete data analysis across all four pilot countries and draft final report ■ Finalize vendor contract and initiate pssinsight.org development 	November 2022
<p>Activity 5.4.1: Testing Behavioral Nudges for AMS</p> <ul style="list-style-type: none"> ■ Resubmit the amended protocol to UNCST once we obtain Makerere ERC's approval ■ Make final preparations for KIs and baseline data collection and then conduct these next step activities as soon as we get UNCST's approval 	November 2022
<p>Year 3, Activity 3: Road map for HTA institutionalization</p> <ul style="list-style-type: none"> ■ Finalize manuscript pending response from reviewers ■ Work with the MOH to finalize and initiate next steps for road map contextualization in Ethiopia 	October 2022
<p>Year 3, Activity 7: Investigating the use of information from PMIS for evidence-based decision-making</p> <ul style="list-style-type: none"> ■ Initiate data collection and analysis pending ethics approval 	December 2022

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

OVERVIEW

USAID is exploring the feasibility and design of potential first steps for VAMOHS. VAMOHS is a means to facilitate access to new (mostly on-patent) medicines and other health products in developing countries, particularly MICs. The mechanism will facilitate access to medical products in a more rapid manner at higher aggregate volumes and lower unit cost to purchasers and patients in these countries. VAMOHS seeks to address existing market inefficiencies by helping de-risk these markets and reduce the transaction costs associated with market entry while increasing the bargaining power of purchasers to promote prompt, commercially sustainable access to patient medical products (e.g., medicines, diagnostic tests, medical devices). Meanwhile, MTaPS has the expertise and has established presence and connections with potential MICs that seem best suited for the VAMOHS initiative and might be interested in participating in its pilot.

MTaPS supported USAID with the selection of possible countries and their entry points for a pilot of the VAMOHS mechanism. This selection process identified critical aspects for country and industry participation in VAMOHS and qualified success within countries for a potential proof of concept. For example, the selected countries could be those with adequate governance structures in place; economic and political stability; the heterogeneity of the purchasing markets within countries (including monopsony or oligopsony); functional information and monitoring systems; and the right entry point given the political economy of what stakeholders should be engaged early in the process and their potential position, interest, and level of power/agency to support or resist the VAMOHS approach.

CUMULATIVE PERFORMANCE TO DATE

VAMOHS began at the end of PY3 and ended in PY4 Q3. MTaPS helped USAID refine its thinking on the VAMOHS medicines market access model, enablers of success, and best entry point starting in 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 government agencies and pharmaceutical companies in Latin America in PY3 Q4. 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 to improve 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 the regional level and identify areas for improvement in medicine access specific to each region.

The FG for Latin America was initially planned for PY4 Q1 but was postponed to PY4 Q2 because of scheduling conflicts with some participants. Fifteen 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 and 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 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 participants 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 FG to collect information about challenges and status of access to medicines in Africa. The Africa 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 equal distribution of stakeholders representing payers and manufacturers.

Findings from the horizon scanning exercise—the desk review, FGs, and KII—were compiled in a final report that contained key highlights and was submitted to USAID and the VAMOHS working group at the end of PY4 Q3. The MTaPS team completed all proposed activities to support VAMOHS at the end of PY4 Q3.

YEAR 4 ACHIEVEMENTS & RESULTS

Over the last year, MTaPS provided support to USAID to refine its thinking on the VAMOHS medicines market access model, enablers of success, and best entry point. Through desk reviews and qualitative analyses (e.g., attending meetings, co-creation, brainstorming encounters, FGs, in-depth interviews with key stakeholders), the team collected information about the challenges and potential solutions to inform the likelihood of success and best entry point for VAMOHS.

Through interviews with key stakeholders and FGs in three regions, the MTaPS team was able to identify critical aspects for future country and industry participation in VAMOHS and suggested three countries that have all the attributes to potentially support the VAMOHS approach. Regions were selected for the FGs based on interest and knowledge of the MTaPS and USAID teams of each region,

while countries were selected based on their health system performance, interest, and readiness to adopt innovative mechanisms such as VAMOHS.

Several themes emerged from the discussions. Many presented an opportunity for VAMOHS to work across countries and regions, while others were best addressed at a regional level. Critical aspects discussed in FGs and found in the desk reviews that presented an opportunity for VAMOHS across countries and regions included challenges around delayed regulatory approvals, fragmentation, need for a better use of generics to reduce the burden around medicines 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 to address one or more of the common challenges presented. Table I shows an overview of key themes that were identified.

VAMOHS could also work within regions. Participants from all regions 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 would be around a mechanism that can support the region to increase trust among stakeholders and transparency around clear approval pathways for entry of new medicines, which is the main challenge posed by the experts interviewed. In Asia, a 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 would entail building a pan-African approach that aims to promote direct dialogues and close the gaps between manufacturers and purchasers, as in certain cases they cannot negotiate directly given the strict regulations and strengthening HTA.

There are many opportunities for a mechanism like VAMOHS to promote access to medicines, reduce the dead-weight loss in the current system of medicine access and pricing for developing countries, and bring value to health systems across the globe. Although focusing on prices of medicines is relevant when thinking about access to medicines, there is a need for a mechanism that also looks at inefficiencies and creates a safe space for manufacturers and buyers to discuss topics around availability, affordability, accessibility, and value of medicines. This mechanism should be flexible, with the capacity to adapt to different contexts based on individual needs, particular to each region and country. VAMOHS can be a successful mechanism if perceived as a transparent and neutral agent to build strong partnerships between manufacturers and buyers. Stakeholders from all regions felt that VAMOHS has potential and expressed interest in further conversations to help refine its approach and conduct pilots to explore its feasibility.

Overall, PY4 was a highly productive year for VAMOHS; MTaPS completed all activities stated 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 among stakeholders. MTaPS successfully facilitated FGDs and individual interviews and made a case for VAMOHS in these regions. The MTaPS team also proposed a country in each region that could benefit from the implementation of a mechanism like VAMOHS, based on the VAMOHS criteria. 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 could streamline the regulatory approval process
Health system challenges related to access to hospitals, diagnostics, and health care providers that limit the ability to benefit from these medicines	Improving identification of common global inefficiencies hindering the availability, affordability, and accessibility to medicines and development of a forum to address system-level challenges could streamline solutions
Fragmentation and misalignment among the different actors of the system	Implementing a cohesive strategy ensuring coordination across institutions and reducing fragmentation is key in ultimately expanding access to medicines
Low use of generics when compared to originators/branded	Promoting the use of generics, when available, and more competitive markets, could lower prices and increase access in vulnerable populations
Lack of data and need to improve HTA processes	Using HTA results from other countries could help support decision making in countries where data are 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

QUARTER 4 ACHIEVEMENTS & RESULTS

This project ended in PY4 Q3.

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 to each region was essential for their success.
- The stakeholder conversations made it clear 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 was significant interest from 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 believed 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, the 90-day period of heightened surveillance began. After receiving the task order for the DEPS activity on December 16, 2021, MTaPS and its partner, FHI 360, quickly mobilized to implement RDT activities during the 90-day surveillance period.

Before activating the RDT teams, MTaPS and its partner, FHI 360, participated in coordination meetings with stakeholders to harmonize the intervention approach and the HAs to be covered. After discussing the selection criteria, the BCZS collaborated with the *Infirmier Titulaire* to select team members. In partnership with the BCZS, INRB, US CDC, IFRC, and iMMAP, MTaPS and its 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 three HAs with confirmed and probable cases and nine bordering HAs: Ngongolio, Tamende, Mabakanga, Kasabinyole, Malepe, Kasanga, Ngilinga, Mukulyia, and Mabolio. The radio programming covered the entire Beni HZ with 19 HAs and other nearby HZs.

CUMULATIVE PERFORMANCE TO DATE

Over the course of the reporting period, MTaPS and its partner, FHI 360, trained 12 teams of 36 people (7 female, 29 male), and 7 supervisors across 12 HAs. After a two-day training session that focused on the importance of RDTs as a diagnostic and post-mortem surveillance tool for EVD, data collection and management, communication and community engagement, utilization of PPE, secure handling of dead bodies, and use of RDTs, FHI 360 equipped the teams with boots, raincoats, latex gloves, heavy duty gloves, hand sanitizer, masks, soap, tablets, and stipends. They also received t-shirts and caps with awareness messages.

To increase the acceptance of RDT activities, MTaPS and its partner, FHI 360, established partnerships with two local radio stations: Radio Television Rwanzururu and Radio Television Kivu Amani. MTaPS and its partner, FHI 360, also organized a one-day briefing for 10 (4 female, 6 male) community leaders on the vital role of risk communication and community engagement in public health emergencies, radio call-in programming, and journalism techniques. MTaPS and its partner, FHI 360, briefed community leaders on the purpose of the RDT activity in EVD post-mortem surveillance. When the RDT teams transitioned from performing RDTs to PCR tests, MTaPS and its partner, FHI 360, organized a session to update community leaders on the status of RDT activities, including the temporary stock-out of RDTs, the interim strategy for the collection of swabs for PCR tests, and securing bodies.

To ensure that the field activities ran smoothly and that the RDT teams and community leaders produced good-quality work, MTaPS and its partner, FHI 360, supported seven local supervisors, a data manager, and a laboratory technician from the INRB to provide onsite supervision and continued mentoring. Local supervisors conducted supervision of activities, and regular joint follow-ups took place

between local supervisors and MTaPS and FHI 360 staff. Supervision included stakeholders from the BCZS, INRB, DPS, FHI 360, CDC, and IFRC.

YEAR 4 ACHIEVEMENTS & RESULTS

During the intervention period (December 31, 2021–March 27, 2022), the following results were achieved by the 12 teams of 36 people positioned in 12 HAs.

Table 3: Alerts received and responded to between December 31, 2021, and March 27, 2022

	Butsili	Bundji	Kanzulinzuli	Ngongolio	Tamende	Mabakanga	Kasabinyole	Ngilinga	Kasanga	Malepe	Maboli	Mukulyia	Total
Number of Alerts Received	34	10	58	25	23	28	7	27	20	20	13	15	280
Number of Completed RDTs	4	4	4	7	6	13	3	6	0	2	4	7	60
Number of Nonreactive RDTs	4	4	4	7	6	13	3	6	0	2	4	7	60
Number of PCR Tests Performed	34	8	54	18	17	15	4	21	20	18	9	8	226*
Number of PCR Negative Results	34	8	54	18	17	15	4	21	20	18	9	8	226

*Six of these performed PCR were done for quality assurance after the RDT was performed

- The 10 trained community leaders conducted **50** radio programs followed by the programs being rebroadcasted 50 times. During the radio programs, community leaders collected **216 comments** via direct phone calls and messages. Additionally, **112 comments** were received verbally by the RDT teams.
- MTaPS and its partner, FHI 360, supported **14** community dialogue and awareness sessions on RDT-related messages with **576** community members (357 female, 219 male).
- MTaPS and its partner, FHI 360, conducted **26** joint supervision visits with local supervisors and **two** joint supervisions with the BCZS, CDC, IFRC, and local supervisors. Additionally, MTaPS and its partner, FHI 360, conducted one joint provincial-level supervision with the INRB, DPS, BCZS, IFRC, CDC, and local supervisors. These supervision visits strengthened the RDT teams' capacity in data collection and the use of both RDT and PCR data collection tools.
- As part of the field coordination, MTaPS and its partner, FHI 360, supported training for **89** (31 female, 58 male) Red Cross volunteers on risk communication and community engagement and on proper PPE usage.
- MTaPS and its partner, FHI 360, collected all expired RDT kits from the teams and handed them over to the INRB laboratory for disposal.

QUARTER 4 ACHIEVEMENTS & RESULTS

Ebola work ended in Q3/PY4. There are no achievements or results to report in Q4.

BEST PRACTICES & LESSONS LEARNED

During the activity period, communities demonstrated good involvement in post-mortem surveillance activities through the community engagement approach and the introduction of RDT teams, unlike in past epidemics. The community-led radio programming resulted in community members alerting the RDT teams and radio program facilitators of deaths in the communities. In the Ngilinga HA on January 20, 2022, a radio program listener alerted one of the leaders facilitating the show to a community death case. In the Ngongolio HA—one of the most resistant HAs during the EVD outbreak—as well as the Kasabinyole, Kanzulnzuli, and Kasanga HAs, family members and youth groups reported several cases of community deaths to the RDT teams. The RDT teams faced one instance of community resistance, which was swiftly resolved. The case occurred in the Butsili HA in mid-January 2022, when motorcycle taximen resisted an RDT team’s attempt 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 the taximen to accept the collection of a sample.

To ensure accountability to the populations reached through the activity, MTaPS and FHI 360’s M&E team established feedback mechanisms (receiving, analyzing feedback, and answering questions). The principal feedback mechanisms in place for community members under DEPS were sharing of written or verbal feedback directly with RDT team members or via phone call/SMS message during the radio programs. MTaPS and its partner, FHI 360, received and responded to 328 comments during the reporting period. To develop appropriate responses, MTaPS and its partner, FHI 360, participated in weekly community feedback analysis sessions with community leaders and HZ authorities. Most of the comments were requests for information or assistance (57%), while the remaining were positive feedback (37%), minor dissatisfaction (4%), or unrelated to the DEPS (2%). The most utilized mechanism was SMS messages to radio program facilitators (68%), followed by communicating feedback to RDT team members (32%).

Feedback from the community underscored the importance of continuously distilling well-calibrated, community-led contextualized health education messages to overcome resistance. In terms of positive feedback, many community members expressed their appreciation for the radio programs and committed to spreading the information they had learned within their communities, while others were grateful for the quick results made possible via RDTs. Among the minor expressions of dissatisfaction, a few individuals expressed discontent about continual talk about Ebola when it was no longer present in Beni HZ. Other community members wanted to know why handwashing was important; if those carrying out the RDT activity were community members or foreigners; and if the leaders themselves had been vaccinated. Finally, some community members expressed a desire for MTaPS and its partner, FHI 360, to continue with post-mortem surveillance activities, including radio programs.

ACTIVITIES & EVENTS FOR NEXT QUARTER

Ebola work ended in Q3/PY4. The task is closed. No activities/events planned for next quarter.

H. GENDER

OVERVIEW

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

CUMULATIVE PERFORMANCE TO DATE

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

In **PY2**, the GWG helped to connect those across the different MTaPS portfolios in discussions of gender activities and areas of possible collaboration and learning. In addition, 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 MERL 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 will assist the entire program in measuring progress against these two broad indicators.

Three capacity building documents and presentations were key successes in PY2. The first, entitled "A Checklist for Gender Considerations for Pharmaceutical Systems," was developed in collaboration with LeaderNet, an online learning and exchange platform managed by MSH for global health professionals working to strengthen health systems in LMICs. Another key capacity building document, entitled "MTaPS Gender Guide for Work Planning," was developed by the MTaPS gender advisor with inputs from the SMT and disseminated to all program staff to assist their gender inclusion activities into third-year work plans. Last was a presentation entitled "Transforming Health and Pharmaceutical Policies to be Gender Inclusive," given by the MTaPS gender advisor during one of the biweekly MTaPS staff meetings in August 2020. This presentation gave an overview of what a gender-inclusive policy entails across distinct levels within a health system, discussed why it is a critical element of gender mainstreaming, and provided context-specific examples of how gender-inclusive policies fit across

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

Year 3 focus for core-funded gender activities was to better define the impacts of not just gender, but also sex, on PSS health outcomes and to find better ways of bringing sex and gender to the forefront of MTAps. To understand the gaps in understanding of how sex and gender impact PSS, a survey was developed and launched to assess the use and usefulness of the gender integration guide (developed in PY2) for PY3 work planning. The survey, developed and led by MTAps' partner, Overseas Strategic Consulting, with input from the SMT, was distributed to all MTAps staff. In brief, only one-third of respondents had a good understanding of sex and gender considerations in PSS. Important findings of the survey included that the guide was understandable, easy to read, of the right length, and had relevant entry points. However, it was less useful for work planning, and training was needed to utilize the guide efficiently. Only one-third of respondents used the guide, and only 25–30% of respondents added sex/gender-specific activities to PY3 work plans. And, if gender activities were added, they focused largely on “equal” participation and did not consider important sex/gender pharmacodynamics, especially within the GHSA portfolios. A review of approved 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.

Based on survey results—and to address MTAps staff's lack of understanding of how sex and gender need to be integrated into PSS—the gender advisor started an informational series called the “Gender Gist” blog, geared for field practitioners on sex and gender considerations important to PSS that are tied to MTAps activities. The Gist includes useful, concise, and practical information for different topics in PSS. Five blogs were published in PY3.

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

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

Throughout **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, 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.

YEAR 4 ACHIEVEMENTS & RESULTS

Year 4 focus for the core-funded gender portfolio, included country-specific sex and gender activities and continuing the momentum of bringing sex and gender to the forefront of MTaPS through scholarly activity, education, and mentorship. Capitalizing on gains in sex and gender awareness, PY4 included the development of knowledge products such as IEC materials and e-Learning modules; writing and publishing academic products such as a journal article to address the need for standardized PSS tools to incorporate sex-disaggregated data; and the development of technical guidance on incorporating sex-disaggregated data and gender considerations as part of AMS interventions and MTaPS-supported MIS. To continue building sex and gender awareness in MTaPS, the Senior Gender Advisor gave Knowledge Exchange and webinar presentations to staff and partners and presented a module in PSS 101 for USAID staff. A panel presentation in support of the GHSA action package on AMR entitled, "GHSA-Supported AMR Investments: Results and Lessons Learned in Strengthening Infection Prevention and Control (IPC); Enhancing Inclusion; and Enabling Rapid COVID-19 Response and Future Pandemic Preparedness" was presented at the 2022 Global Health Security Conference in June/July 2022 in Singapore. A Gender Gist blog following the conference was drafted to add to the series from previous years. These blogs remain among the top pages viewed on the MTaPS website.

QUARTER 4 ACHIEVEMENTS & RESULTS

A review of MIS either implemented or under development in Bangladesh and the Philippines was undertaken between the Senior Gender Advisor and in-country staff who could log onto each system to review how data were entered and/or reported. Each system was summarized, then followed by recommendations to ensure that gender considerations are integrated in the pharmaceutical MIS to inform health program decisions tailored to the various MIS in the Philippines and Bangladesh. After reviews from staff, a technical commentary paper on the need for sex-disaggregated data and recommendations for improvement in WHO PPS methodology was finalized for submission to a journal. New requirements of the Philippine DOH required the e-Learning modules developed in Q3 to add additional knowledge checks and pre-/post-test questions. Technical guidance on incorporating sex-disaggregated data, sex, and gender considerations as part of AMS interventions was also finalized during this quarter. The technical guidance provides a menu of options on actionable sex and gender considerations for health facility AMU and AMS interventions. The guidance draws on evidence from LMICs, and as relevant and appropriate, from certain high-income countries, and incorporates discussions and reviews with staff who administer AMS programs. The gender advisor reviewed the "Guide on Conducting Antibiotic Use Surveillance to Support Antibiotic Stewardship Interventions in

Health Facilities in Uganda” and the draft Nepal NMP to provide written feedback on sex and gender considerations and sex-disaggregated data aspects.

In continuing the Gender Gist blog, this quarter’s blog is entitled “Where the Wild Things Are: Missing the Forest for the Trees.” This blog focuses on increasing efforts to include AMR MSC in line with the OH approach, expanding efforts to include all of the strategic objectives and fully acknowledge that sex and gender impacts need to be understood to contain AMR. Written to summarize issues discussed at the Global Health Security Conference, this blog reviews how the focus on IPC may have caused AMS programs to miss the forest for the trees and miss the lurking dangers from unchecked AMR.



Picture credit: OSC Ltd.

In September 2022, a sex and gender module was added to the PSS 101 course requiring development of a PPT presentation and knowledge checks. In addition to a 10-minute presentation, during the working groups, adult learning kinesthetic methods were utilized to reinforce sex and gender concepts in PSS. These active case studies were well-liked by attendees in the small group session.

Now for some fun...

Listen to the statement and type in the chat:
"Sex", "Gender," or "Both" if you think the statement
Represents a sex impact, a gender impact or is impacted by both sex and gender

Source: Norek Photo

Pregnant Transgender Man

Sex, gender, or both

Source: [T23BC](#)

A transgender man is biologically female - pregnancy can only happen in biological females – his gender is socially constructed and has no impact on his ability to get pregnant

The gender advisor reviewed PY5 work plans to ensure sex and gender are integrated into activities, participated in biweekly staff meetings, the quarterly expanded COR and technical meetings, and work planning for PY5. Quarterly and annual gender reports were written during this reporting period.

BEST PRACTICES/LESSONS LEARNED

- PSS programs need to move away from narrow “gender” programming and evolve to include sex and gender due to the biological impacts on pharmacokinetics and pharmacodynamics and gender differences that create inequitable access to care or put patients at risk.

- Integration of sex and gender in PSS activities is more successful when COR, SMT and USAID missions support and understand that these concepts affect mortality, morbidity, and health outcomes and are required for ethical and equitable care of all patients.
- Sex and gender are not interchangeable terms; staff and partners need to be reminded frequently to understand the differences.
- Including both gender and sex in MISs is important—an example of why is that transgender men (biologically female) can become pregnant; therefore, if they are taking medicines that can harm a fetus, providers and prescribers must know the gender and the sex of the patient to limit harm to a developing fetus or neonate.
- Pharmacovigilance must include last menstrual period, pregnancy, and gender in specified fields, not left to be entered in a comments section, to ensure females of reproductive age, transgender men, and their fetus/neonate are not harmed.
- Integration of sex and gender activities during the development of work plans instead of after their development and approval better ensures their inclusion. PY4 was the first year the gender advisor was directly involved in work planning—as a result, PY5 has sex and gender integrated into activities.
- e-Learning modules for the Philippines took longer than planned due to shifting academic requirements by the DOH; MTaPS needs to be flexible to adjust to DOH requirements.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Develop a PY5 task order for gender activities pending USAID approvals on work plans	October 2022
Submit WHO PPS manuscript to Bulletin of the WHO	October 2022
Drafting of a new Gender Gist Blog—topic TBD	December 2022
Participation in biweekly staff, quarterly technical, and expanded COR meetings	October - December 2022
Work with the illustrator to finalize Philippines e-Learning modules	December 2022

4. PROGRESS BY COUNTRY

A. BANGLADESH

FIELD SUPPORT

OVERVIEW

The overall goal of MTaPS 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 GOB's 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 to the MOHFW to build institutionalized and sustainable capacity, which is critical to achieving UHC and the SDGs and to the country's journey to self-reliance.

CUMULATIVE PERFORMANCE TO DATE

With MTaPS' technical assistance, the MOHFW and key directorates developed a strategic plan for coordinated procurement. The plan included mapping of the MOHFW's procurement entities, their practices, and key actions to be implemented with timelines and periodic reviews. MTaPS reactivated and strengthened the Procurement and Logistics Management Cell functions in two divisions of the MOHFW (i.e., Health Services Division and Medical Education and Family Welfare Division) through advocacy with their staff and review of the TOR to ensure oversight mechanisms for effective and efficient procurement systems. MTaPS also developed a TOE up to tertiary-level HFs and updated the MSR list with specifications. MTaPS has also assisted the MSR List Updating Committee, constituted by the MOHFW, to develop a strategy to assign standard reference prices to the updated list. MTaPS has developed a process for oversight bodies at the MOHFW and the DGHS to monitor the performance of procuring entities using indicators to improve procurement functions.

MTaPS collaborated with the DGFP in reviewing and managing the stock status of RH and FP commodities at various levels of the supply chain, resulting in maintaining stock-out rates below 1% at SDPs. These efforts helped the DGFP reduce unnecessary procurement of FP injectable commodities by 20 million units, saving USD 9.6 million during FY 2021–22. These results were achieved by analyzing data generated by the MTaPS-developed DGFP eLMIS. MTaPS also provided support to the DGFP to organize training on SCM and troubleshooting for 299 subdistrict-level managers. MTaPS introduced the eAMS in all 61 DHs across the country. Approximately 50% of them completed almost 100% data entry of assets into the eAMS, contributing to 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. The NTP has rolled out the system nationally to all 868 TB

sites and has targeted nationwide paperless reporting by December 2022 in a phased manner. This has reduced the report processing time from one day to just a few minutes and has made information available in real time, allowing for prompt monitoring and management of cases. e-TB Manager is interoperable with the [Janao app](#) to capture information from TB patients treated at private centers by graduate practitioners, thereby increasing case notifications and data visibility. The system server was transferred from MSH to the DGHS MIS and is now managed by local developers. e-TB Manager has been enhanced for electronic reporting of aDSM from DR-TB sites on adverse reactions caused by TB medicines. In collaboration with the NTP, MTaPS completed a peripheral TB storage system assessment that analyzed options for storage integration, and a phased transition plan was proposed. 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 the DGDA in developing an inspection strategy for model pharmacies and model medicine shops. In PY3, MTaPS facilitated the DGDA's scale up of PV to more than 30 government and private HFs and led the development of the DGDA's action plan based on a five-year strategic plan. An electronic inspection and licensing system for pharmacies has been implemented with MTaPS' support. In the latest WHO GBT assessment, MTaPS supported the development of the CAPA plan, which was endorsed by WHO. The DGDA's capacity was built on convergence and Common Technical Document dossier evaluation to reflect GRPs. To ensure the safety of medicines, MTaPS supported the DGDA on periodic evaluations of AE reports, and actions were taken on a range of products. An independent and functional QMS was established with MTaPS' support. An internal audit program was implemented with MTaPS' assistance. Guided by the objectives of the GOB's 20-year health care financing strategy, MTaPS worked with the MOHFW and other stakeholders to explore options for supporting implementation of the pharmaceutical-related components of the strategy, including expenditure tracking of pharmaceuticals. This activity was undertaken with MTaPS' technical assistance partner Results for Development, which delivered a situational analysis report.

YEAR 4 ACHIEVEMENTS & RESULTS

With MTaPS' support, the approval processes for procurement plans and tender evaluations by the MOHFW and DGHS (i.e., the oversight bodies) were successfully decentralized to the procuring entities in alignment with the required procedures. This has significantly reduced the overall procurement process lead time.

After rolling out e-TB Manager, the NTP stopped paper-based reporting and started collecting electronic reports through e-TB Manager. In collaboration with the NTP and DGHS MIS, MTaPS developed a transition plan to ensure smooth functioning of e-TB Manager after MTaPS ends.

The CAPA plan developed with MTaPS' support was endorsed by WHO based on its latest assessment of DGDA functions. A QMS implementation roadmap was also developed. Assessors' capacity was built in convergence of technical standards, CTD dossier evaluation, and internal audits. An internal audit program was developed and implemented. The DGDA organizational chart was updated. Mechanisms were created for enforcement activities and performance monitoring of DGDA functions. To ensure the safety of medicines, periodic evaluations of AEs were supported, and actions were taken on a range of products based on recommendations generated in PY4.

Implementation of the DGFP e-LMIS enabled the directorate to maintain an adequate stock of contraceptives at more than 99% of SDPs, ensuring availability of FP methods to clients. The DGFP saved USD 9.6 million by cancelling a procurement package of 20 million vials of injectable contraceptives after data generated and analyzed by the DGFP eLMIS showed high stock levels.

The MOHFW had an associated Global Fund Disbursement Link Indicator in the Fourth Health, Nutrition, and Population Sector Program related to eAMS implementation. MTaPS worked closely with the MOHFW and DGHS to achieve the indicator through concrete actions, including having the eAMS implemented and functional in 30 DHs selected by the MOHFW, approved eAMS operational guidelines, and an approved eAMS training manual.

QUARTER 4 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

Update the Price Guide of Medical Equipment and align with the revised TOE

MTaPS assisted the MOHFW to draft a single-lined specification for the medical equipment listed in the TOE as an important step in updating the price guide and received feedback from clinicians, hospital directors, prominent HCPs, and MOHFW management. The updated price guide will contribute to improving the efficiency of the procurement entities in cost-effective planning and ensuring transparency in the procurement process.

Map the organizational and governance structure of DGHS procurement functions

MTaPS supported the DGHS in assessing the structural and functional status of the procuring entities; shared the findings with DGHS management; and agreed on the recommended actions for improvement, with an emphasis on building institutional capacity. The actions from the recommendations will contribute to improving the efficiency of the DGHS procuring entities, which in turn will contribute to reducing the overall procurement lead time.

Strengthen the capacity of DGHS decision makers and health facility staff to use eAMS at selected districts

A significant number of assets information entries (1,801) were completed in Q4 with MTaPS' technical assistance. Currently, 7,548 entries are managed by the eAMS to track availability of assets; functional status; and repair and maintenance history, including location. With key information available in the eAMS, health managers can plan more efficiently for preventive maintenance and required repair and for future procurement of medical equipment.

OBJECTIVE 2: PHARMACEUTICAL REGULATORY SYSTEMS STRENGTHENED

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

MTaPS assisted in the development of mechanisms for DGDA enforcement activities and performance monitoring. Capacity of DGDA staff was built in harmonization and regulatory reliance for medical product registration. These initiatives will enable regulatory practices to be better implemented and their performance better measured.

Support DGDA in implementing a QMS jointly with Promoting the Quality of Medicines Plus (PQM+) Program to achieve ISO 9001:2015 certification (refer to RS05)

A QMS implementation roadmap was developed with MTaPS' assistance and is being implemented by the DGDA. The capacity of the assessors in internal auditing was built through training, mock assessment, and scheduled execution of internal audits at the DGDA. These efforts helped the DGDA strengthen QMS for GRPs.

Continue to provide TA for ongoing monitoring of adverse drug reactions (ADRs), including introducing aDSM report evaluation to contribute to evidence-based regulatory decision making to ensure medical safety (refer to VL04.01)



The rally marking the World Patient Safety Day 2022 (photo credit: Roche Bangladesh Ltd.)

To ensure the safety of medicines, periodic evaluations of ADEs were supported by MTaPS. A total of 73 ADE reports were evaluated by the adverse drug reaction monitoring cells. The evaluation outcome was incomplete in 60 reports and complete in 13. Of the complete reports, 10 had non-serious causality as likely and 3 had serious. The 3 serious reports will be placed in the upcoming technical subcommittee workshop on causality assessment for ensuring medicine safety. MTaPS assisted the DGDA in organizing a rally and roundtable discussion at the DGDA office in Dhaka to mark World Patient Safety Day on September 17, 2022.

OBJECTIVE 3: SYSTEMS FOR EVIDENCE-BASED DECISION MAKING INSTITUTIONALIZED

Enhance and scale up eLMIS previously developed for TB commodities in DGHS

MTaPS continued supporting the rollout of the eLMIS for TB commodities. This quarter, training sessions were conducted for 140 HFs from Rajshahi and Rangpur divisions. A total of 360 (51 female, 309 male) participants from the NTP; district and upazila level officials; and partner organizations (e.g., BRAC, Damien Foundation, LAMB) were trained. The training will enable the participants to understand the basic concepts of logistics management, support the rollout of the eLMIS for TB commodities in their respective upazila, and ensure end-to-end TB logistics data visibility.

In collaboration with partners, transition e-TB Manager to NTP

In collaboration with the NTP and the DGHS MIS, MTaPS developed a transition plan for e-TB Manager to ensure smooth functioning and sustainability of the system after MTaPS ends.



Discussion on the e-TB Manager transition plan (photo credit: Md. Ferdous Alam, Senior Technical Advisor, MTaPS Bangladesh)

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

No activities were planned for this objective under the field support work plan.

OBJECTIVE 5: PHARMACEUTICAL FINANCIAL RESOURCE ALLOCATION AND USE OPTIMIZED

Continue to support Health Economics Unit (HEU) in pharmaceutical expenditure tracking for selected commodities other than MNCH

The MTaPS team and an expert from partner Results for Development discussed with the MOHFW HEU the standard methodology adopted internationally to track PE and agreed with the HEU that it differs from the disease-specific expenditure tracking used in Bangladesh. The expert visited Bangladesh and came to consensus with the HEU on the methodology for tracking MNCH commodities and initiated activities for implementation. The tracking exercise is expected to be implemented in the next quarter.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

MTaPS undertook the activity to “Assist DGFP in developing a mechanism for the service and logistics data validation process” with the objective of integrating the eLMIS and eMIS to validate service and logistics data. Data analysis from both systems was done prior to the system integration trial to validate and match the number of SDPs and contraceptives distributed in two selected subdistricts. A significant data mismatch was found in both the number of SDPs and product-wise distribution data, which was a challenge for the activity. The DGFP suggested not moving forward until the root cause of the mismatch

is identified. Therefore, before initiating any similar activity, the IP must carry out or search for a pre-assessment or feasibility study to inform the intervention plan.

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 (PY4)	December 2022
Activity 1.1.1: Continue to assist the MOHFW and the DGHS to address issues with procurement processes and documentation of different procuring entities with an aim to improve efficiency (quality improvement) (PY5)	December 2022
Activity 1.2.1: Collaborate with the DGFP to implement the transitioning to the online inventory management system (PY5)	October - December 2022
<ul style="list-style-type: none"> A workshop to demonstrate the online version to the DGFP will be organized in October 2022 and a TOT for 20 DGFP officials will take place in November 2022. 	
Activity 1.2.2: Institutionalize the eAMS use at all (61) district hospitals. (PY5)	October - December 2022
<ul style="list-style-type: none"> The MTaPS technical team will visit five to eight DHs to provide necessary support to system users. 	
Activity 1.2.3: Assist CMSD to implement the comprehensive eLMIS (PY5)	October - December 2022
<ul style="list-style-type: none"> A two-day hands-on training course will be organized in October 2022. 	
Activity 1.3.2: Institutionalize eLearning courses of the relevant directorates of the MOHFW (PY5)	October - December 2022
<ul style="list-style-type: none"> eLearning courses will be developed in Bangla, shared with GOB entities, and hosted on the government platform (MUKTOPATH). 	
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) (PY4)	November 2022
<ul style="list-style-type: none"> A draft strategic plan will be shared with stakeholders, and a finalization workshop will be arranged. 	
Activity 2.1.1: Continue to provide technical assistance in developing and implementation of CAPA plan in selected functions as per WHO formal assessment report for the DGDA to contribute to increasing score on WHO GBT (PY5)	December 2022
<ul style="list-style-type: none"> Support the DGDA in CAPA plan development for pharmacovigilance and national regulatory system functions for the upcoming WHO assessment and address existing and upcoming CAPA plans through periodic monitoring mechanisms. 	
Activity 2.2.2: Assist DGDA in strengthening existing online ADR reporting and monitoring system (refer to VL04.01 and VL06) (PY4)	December 2022
<ul style="list-style-type: none"> Enhancement of the evaluation part and creation of dashboard will be followed by training for implementation of PViMS. 	
Activity 2.2.4: Work with DGDA and other stakeholders to develop guidelines on Good Vigilance Practice (GVP) and update the national PV system guideline per WHO GBT requirements (refer to VL01.02) to increase score to maturity level 3 (PY4)	December 2022
<ul style="list-style-type: none"> Organize two workshops to develop a final draft of the national PV guidelines. 	
Activity 2.2.1: Continue to provide technical assistance for generating evidence-based regulatory decisions towards ensuring medicine safety (PY5)	December 2022
<ul style="list-style-type: none"> Assess AEs, including aDSM reports. 	
Activity 3.1.1: Enhance and scale up eLMIS previously developed for TB commodities in DGHS (PY4)	November 2022
<ul style="list-style-type: none"> A total of 69 facilities will be trained on eLMIS for TB commodities. 	
Activity 3.1.1: Assist National TB Control Program (NTP) to implement relevant components of e-TB Manager transition plan (PY5)	December 2022
<ul style="list-style-type: none"> Provide training on e-TB Manager and data use and quality management for master trainers and data quality managers. 	
Activity 5.1.1: Assist HEU to build capacity on pharmaceutical expenditure tracking (PY5)	December 2022
<ul style="list-style-type: none"> Develop training modules on expenditure tracking procedure. 	

Table 4. Quarter 4, FY22, Activity Progress, Bangladesh – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.1.1: Update the Price Guide of Medical Equipment and align with the revised TOE</p> <p>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.</p>	Obj 1, SO 1.1			Participants from the MOHFW and clinicians from different departments of medical college and hospitals attended the National Electro-Medical Equipment Maintenance Workshop and Training on September 25, 2022, to discuss the proposed single-lined specification for the price guide (which is important for updating the price guide), and immediate feedback was received. Complete feedback is expected by mid-October.
<p>Activity 1.1.2: Map the organizational and governance structure of DGHS procurement functions</p> <p>Activity Description: The organizational and governance structure of the DGHS will be reviewed in the context of a diversified procurement function, and an appropriate structure will be suggested.</p>	Obj 1, SO 1.1			A checklist to collect information from the procuring entities was finalized. A letter has been issued by the DGHS to the procuring entities to provide the required information to be consolidated, validated, and analyzed in the next quarter.
<p>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</p> <p>Activity Description: Build the capacity of district and subdistrict health and FP managers on data for decision making.</p>	Obj 1, SO 1.2			A total of 299 DGFP district and subdistrict-level managers were capacitated on reviewing and analyzing FP data for decision making. A total of 125 health managers were oriented on e-TB Manager data analysis and decision making for better management of TB patients.
<p>Activity 1.2.2: Assist DGFP in developing a mechanism for the service and logistics data validation process</p> <p>Activity Description: Integrate the eLMIS and eMIS to validate the rationality between service and logistics data.</p>	Obj 1, SO 1.2			MTaPS gathered and analyzed logistics distribution data from the eMIS and eLMIS, and significant data gaps were identified. An analysis report was shared with both the MIS and the DGFP logistics unit. The DGFP decided not to move forward with the interoperability of the systems until the root cause of the data gap is identified.
<p>Activity 1.3.1: Institutionalize eLearning courses of the relevant MOHFW directorates</p> <p>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.</p>	Obj 1, SO 1.3			A local consultant hiring is in process, and translation of the storyboards to Bangla is ongoing.
<p>Activity 1.3.2: Strengthen the capacity of DGHS decision makers and health facility staff to use eAMS at selected districts</p>	Obj 1, SO 1.3			All 61 DHs started using the eAMS. Out of these, 30 had almost 100% of their assets information entered in the system. Hospitals superintendents, resident medical

<p>Activity Description: Capacitate the selected DHs on efficient management of the eAMS.</p>				officers, statisticians, and storekeepers of each hospital received training on the system.
<p>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</p> <p>Activity Description: Support the DGDA in addressing the observations of the 2021 WHO external assessment as per the CAPA plan.</p>	Obj 2, SO 2.1			The activity is complete.
<p>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)</p> <p>Activity Description: Review the existing strategy and develop a new one with the formed working committee.</p>	Obj 2, SO 2.1			A working committee was formed to develop the strategic plan. Four workshops were conducted. Drafting of the plan is underway, and it will be shared with a wider group before conducting a finalization workshop.
<p>Activity 2.1.3: Support DGDA in implementing a QMS jointly with PQM+ to achieve ISO 9001:2015 certification (refer to RS05)</p> <p>Activity Description: Support for QMS components.</p>	Obj 2, SO 2.1			The activity is complete.
<p>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)</p> <p>Activity Description: Assess AEs, including aDSM reports.</p>	Obj 2, SO 2.2			The activity is complete.
<p>Activity 2.2.2: Assist DGDA in strengthening existing online ADR reporting and monitoring system (refer to VL04.01 and VL06)</p> <p>Activity Description: Work with a consultant to enhance the system.</p>	Obj 2, SO 2.2			A local IT firm is onboard, and PVIMS is installed locally. Configuration is ongoing (e.g., yellow card designed in the system, trial and error running). Evaluation steps and dashboard to be created.
<p>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)</p> <p>Activity Description: Ensure aDSM reporting through e-TB Manager from DR-TB sites in collaboration with partners.</p>	Obj 2, SO 2.2			The electronic aDSM reporting system is running at all 10 DR-TB sites. To date, more than 200 events have been reported, and the DGDA is analyzing the reports submitted.
<p>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</p>	Obj 2, SO 2.2			After public consultation, the draft GVP guidelines were finalized by the working committee. Initial drafting of the national PV guidelines is ongoing and requires two additional workshops to develop a final draft. Both guidelines will be finalized at the ADRAC meeting.

<p>Activity Description: The working committee will prepare final drafts of the guidelines and get them approved.</p>				
<p>Activity 3.1.1: Enhance and scale up eLMIS previously developed for TB commodities in DGHS</p> <p>Activity Description: The DGHS eLMIS will be scaled up to hundreds of sites that provide TB services, the CMSD, and two districts for other pharmaceutical items.</p>	Obj 3, SO 3.1			A total of 112 facilities (100 Upazila Health Complexes and 12 district civil surgeon offices from Rajshahi and Rangpur division) were initially trained on the eLMIS for TB commodities. Training for the remaining 28 facilities (4 districts and 24 upazilas) of Rangpur division was also completed.
<p>Activity 3.1.2: Provide TA to DGFP in transitioning existing inventory tools from offline to online</p> <p>Activity Description: The DGFP's inventory management tools will be converted online with updated features.</p>	Obj 3, SO 3.1			Meetings were held with the Logistics and Supply Unit's officials, and an action plan with a defined timeline was developed. Back-end enhancement and changes are being done by the IT consultant, and a demo to the DGFP is planned for early next quarter.
<p>Activity 3.1.3: Customize and implement Pharmadex version 2 for vaccine registration in DGDA</p> <p>Activity Description: Cover the registration of vaccines as agreed by the DGDA. Pharmadex version 2 is expected to be user friendly and customizable to accommodate new process flows.</p>	Obj 3, SO 3.1			MTaPS has been working to have the work/process flows streamlined based on the DGDA's requirements. The required fields have been identified and incorporated into the system. The screener, reviewer, moderator, and approver processes need to be incorporated, and necessary information needs to be added later to generate the certificates.
<p>Activity 3.2.1: Enhance and maintain e-TB Manager through the national technology partner</p> <p>Activity Description: Knowledge of and skills for using and maintaining the enhanced e-TB Manager will be transferred to the national technology partner from the international consultant.</p>	Obj 3, SO 3.2			Previously, e-TB Manager was managed by an international developer. The system is currently managed by a national information technology partner that will continue to support the activity.
<p>Activity 3.2.2: In collaboration with partners, transition e-TB Manager to NTP</p> <p>Activity Description: A plan for transitioning e-TB Manager from MTaPS to the NTP will be developed, focusing on the sustainability of the system.</p>	Obj 3, SO 3.2			A transition plan for e-TB Manager was developed in collaboration with the NTP and DGHS MIS to ensure smooth functioning of the system after MTaPS ends. MTaPS is assisting the NTP to incorporate feedback from the Global Fund into a revised version of the plan.
<p>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</p> <p>Activity Description: Based on the last technical working group, MTaPS is committed to updating the 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 up by partners (especially MaMoni MNCSP, and UNFPA) with TA from MTaPS.</p>	Obj 3, SO 3.2			MTaPS collaborated with the USAID MaMoni program to update the commodity list and provided technical assistance to scale it up to three new districts.

<p>Activity 5.1.1: Continue to support HEU in PE tracking for selected commodities other than MNCH</p> <p>Activity Description: MTaPS will collaborate with the HEU and WHO to continue the exercise of PE tracking for commodities other than MNCH.</p>	Obj 5, SO 5.1			<p>There has been consensus on the methodology to be used for PE tracking. A SOW for data collectors was finalized. The engagement of the consultant is in progress.</p>
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GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

Under Objective 5, MTaPS Bangladesh supports ARC by implementing the NAP-AMR. 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—effective MSC on AMR, IPC, and optimized use of AMS—to help the country progress toward higher JEE levels.

CUMULATIVE PERFORMANCE TO DATE

Before the inception of GHSA funding in FY20, MTaPS' assistance in ARC was focused on MSC. MTaPS conducted a mapping exercise under the leadership of the CDC/DGHS to assess the implementation status of the NAP-AMR and identify gaps and priorities. After the inception of GHSA funding, MTaPS' contribution to ARC was further strengthened by successfully facilitating joint stakeholder meetings, finalizing the AMR framework and indicators for IPC and AMS, and extending AMR activities from the national to the facility level. In collaboration with the CDC, MTaPS updated the national AMR strategy, developed STGs, continued technical assistance to the national MSC mechanism by holding NTC meetings, and strengthened multidisciplinary implementation of IPC and AMS at four targeted HFs. Subsequently, IPC and AMS activities were expanded to five additional facilities. MTaPS has supported the government and stakeholders to complete 14 of the 62 (23%) 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.

YEAR 4 ACHIEVEMENTS & RESULTS

Under the leadership of the CDC, DGHS, the core working group meeting is an excellent platform to review progress, modify policy documents and plan for further action. In PY4, the AMS guideline, national AMS multisectoral plan, and AMS training module; STG training module; costed operational plan on ARC; and assessment findings of AMS policies, practices, and regulations in human and animal health were reviewed, modified following feedback, and finalized by expert core working group members and development partners. MTaPS actively supported, participated in, and facilitated all core working group meetings.

In collaboration with the CDC, IPC training was conducted for 114 participants (47 female, 67 male) in the initial four MTaPS-supported HFs. This training is expected to increase the capacity of the care providers to implement standard IPC guidelines and interventions at the facility level

MTaPS supported the CDC to conduct a TOT using the newly developed STG and its app for 420 (60 female, 360 male) participants from DHs and Upazilla Health Complexes, some of which are GHSA-selected facilities. The participants were capacitated on practicing the WHO AWaRe classification when prescribing to a patient. The STG and its app are the guiding tools for facilities toward contributing to JEE level 3.

MTaPS catalyzed the establishment of AMS committees in Cumilla Medical College Hospital, Munshiganj District Hospital, Nilphamari District Hospital, and Taraganj Upazilla Health Complex. Cumilla Medical College Hospital and Munshiganj District Hospital also developed time-bounded facility AMS plans. The locally developed plans empowered the AMS focal points to implement AMS interventions in a more efficient fashion.

The baseline assessment of IPC and AMS was completed in the five additional MTA-PS-supported HFs. The assessment will support development/modification of the IPC and AMS committees and assist in the development of the IPC and AMS plans at the facility level.

MTaPS supported the CDC with the consultation working group to finalize the costed NAP-ARC operational plan. This plan, in conjunction with the mapping of partners, will support resource mobilization and accountability for all components of ARC in Bangladesh.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Continue to support governance, functionality, and implementation capacity of national MSC mechanisms

In collaboration with the CDC, MTA-PS supported drafting the national multisectoral AMS plan through a consultation process during core working group meetings. MTA-PS also provided support with document review, KIIs, and data collection for analysis and interpretation of findings for evidence-based planning. This plan is a progress milestone to organize the required resources in an efficient manner to implement all components of AMS actions.

In collaboration with the CDC, MTA-PS developed the costed NAP-ARC operational plan (2021–2026) through an extensive consultation process during core working group meetings. The program also conducted a document review. All relevant departments, partners, and experts actively participated in the costing of AMR interventions according to department and partner implementation areas, processes, and systems. Funding sources, estimated funding needs, and current funding gaps were discussed, agreed upon, and finalized. The costed NAP-ARC operational plan is an opportunity for Bangladesh to plan, implement, build capacity, strengthen systems, and monitor and evaluate actions effectively and efficiently through the coordination and leadership of the CDC. The costed NAP-ARC operational plan has recommended increased and sustained government funding throughout its five years.

RESULT AREA 2: IPC

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

A total of 150 participants (61 female, 89 male) received training on IPC at the five additional MTA-PS-supported health facilities. These activities are expected to increase the capacity of care providers toward compliance with IPC standards.



IPC Training in Jhenaidha District Hospital on September 21, 2022 (photo credit: Dr. Shahida Akter, MTaPS Bangladesh)

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

The findings of the IPCAF assessments conducted in the five additional MTaPS-supported facilities (a sixth was identified but not ready to participate) in the previous quarter are being analyzed. The report was drafted with MTaPS' support in view of developing facility IPC plans for the newly supported facilities. Subsequently, a repeat assessment was conducted in the initial four MTaPS-supported facilities with the same data collectors used in the previous quarter. These assessments (baseline and repeat) will help understand progress to date and the IPC committees' capacity to plan, implement, and evaluate IPC activities to address IPC gaps at the facility level.

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

Strengthen AMS governance structures at the national level

MTaPS supported the CDC and QIS to finalize the AMS guidelines through a review of documents. The review included other countries' AMS guidelines, sharing drafts with experts in core working group meetings, feedback, and further modifications. In addition, AMS and STG training modules were developed. The guidelines and training modules are essential tools for developing the capacity of care providers to contain AMR in Bangladesh.

Based on the assessment of AMS policies, regulations, and practices in both the human and animal health sectors conducted in the previous quarter, a national multisectoral AMS plan was discussed and drafted in a workshop on August 16, 2022. The CDC has taken the responsibility to finalize the plan in the next quarter. This plan is an opportunity for Bangladesh to move forward with adequate resources and skills to contain AMR.

Improve AMS practices and services at the facility level

Under the leadership of the CDC, the STGs were developed following the AWARe guidance, and the STG app was made available in the Google Play Store.

Periodic monitoring, particularly joint monitoring with CDC and QIS officials, has improved the quality of AMS implementation. Health facilities demanded training on the STGs and AMS, and the recently developed STG and AMS training modules are critical tools to build capacity of care providers to improve AMS practices and services at the facility level.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

The scientific sessions on AMR established at Cumilla Medical College Hospital are a potential platform to discuss, plan, and implement IPC and AMS effectively and efficiently. The facility authority encourages and ensures the participation of department heads, microbiologists, consultants, and regional medical officers at all scientific sessions. This is a fully local initiative through which AMR can be the priority agenda for all. In addition, the director of Cumilla Medical College Hospital is encouraging the IPC and AMS focal points to organize sessions for nurses and interns on IPC and AMS. These actions demonstrate local leadership on AMR containment. However, there is a need to document all actions as evidence of the program’s dynamism. Similarly, Munshiganj District Hospital organizes monthly IPC meetings to discuss department-wide gaps and challenges, document major decisions, and plan for the following month's discussion. This is an adequate way to measure progress of IPC at the facility level. Another stakeholder (Fleming Fund) is interested in working with MTaPS through a collaboration approach to build the capacity of facility authorities and providers to cover all key thematic areas of the NAP-AMR. As their selected facilities do intersect with MTaPS-supported facilities, they proposed a joint integrated approach in all selected areas in collaboration with the CDC and QIS. Therefore, planned implementation in alignment with government priorities and continued sharing of information and collaboration with IPs and other stakeholders is an excellent strategy to scale up interventions beyond MTaPS’ reach, benefiting the country even more.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
<p>Activity 1.1.1: Continue to support governance, functionality, and implementation capacity of the national MSC mechanism (PY4)</p> <ul style="list-style-type: none"> World Antimicrobial Awareness week (WAAW) 2022 	November 2022
<p>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 (PY4)</p> <ul style="list-style-type: none"> Training reports of facility committees and providers showing the reach of blended approaches An inventory of AMR interventions by different stakeholders in Bangladesh (Y5 activity) 	November 2022
<p>Activity 2.5.1: Continue to strengthen IPC activities in the four current participating facilities, scale up similar initiatives to six additional facilities (PY4)</p> <ul style="list-style-type: none"> Reports of IPC committees established in the participating hospitals Report on improvement of IPC practices as a result of joint supervisory visits and cross visits (Y5 activity) 	November - December 2022
<p>Activity 2.5.1: Strengthen IPC activities in the participating facilities representing different levels of care (PY2)</p> <ul style="list-style-type: none"> A workshop will be organized to share the IPC and AMS assessment lessons learned in target facilities 	October 2022
<p>Activity 3.5.1: Strengthen AMS practices in participating facilities representing different levels of care (PY3)</p> <ul style="list-style-type: none"> A workshop will be organized to disseminate the STG app 	November 2022

Activity 3.5.1: Strengthen AMS practices in participating facilities representing different levels of care (PY4) December 2022

- Training report on STG for health care providers in four MTaPS-supported facilities
-

Activity 3.1.1: Strengthen AMS governance structure at national level (PY4) December 2022

- Report of rapid assessment of stewardship policies, regulations, and practices conducted in the human and animal health sectors
- National AMS guideline for human health sector
- National multisectoral AMS plan

Table 5. Quarter 4, FY22, Activity Progress, Bangladesh – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.1.1: Continue to support governance, functionality, and implementation capacity of national MSC mechanisms</p> <p>Activity Description: MTaPS will develop a costed operational plan for the new NAP-AMR 2021–2026 and update the current M&E framework to align with the new NAP-AMR.</p>	N/A	1.1		The costed operational plan for the new NAP-AMR was developed and shared with stakeholders to receive feedback for finalization.
<p>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</p> <p>Activity Description: IPC training materials developed for refresher training. Develop and deploy eLearning modules.</p>	N/A	2.1		Supplied updated version of IPC guidelines to the facility authority and care providers at Cumilla Medical College Hospital and Munshiganj District Hospital. Performed joint visits with CDC officials to same facilities and performed on-the-job training to doctors and nurses on IPC.
<p>Activity 2.5.1: Continue to strengthen IPC activities in the current four participating facilities; scale up similar initiatives to six additional facilities</p> <p>Activity Description: Conduct IPC training in MTaPS-supported health facilities.</p>	N/A	2.5		Trained 150 care providers (61 female, 89 male) on IPC from the five additional MTaPS-supported facilities.
<p>Activity 3.1.1: Strengthen AMS governance structures at the national level</p> <p>Activity Description: Conduct baseline assessment of stewardship practices. Strengthen the AMS program through policy and guidelines development.</p>	N/A	3.1		National AMS assessment of policies, regulation, and practices were conducted. AMS guidelines were developed.
<p>Activity 3.5.1: Improve AMS practices and services at the facility level</p> <p>Activity Description: Assess AMS practices in selected health facilities.</p>	N/A	3.5		Repeat AMS assessment was conducted in the initial four MTaPS-supported facilities.

B. BURKINA FASO

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of the MTaPS program in Burkina Faso is to support AMR containment by slowing the emergence of resistant pathogens and prevent the spread of resistant infections 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 capacity level in the country's JEE by focusing interventions on MSC and AMS components of AMR in both the human and animal health sectors. MTaPS is providing comprehensive technical assistance for sustained improvements in health system performance to advance USAID's and Burkina Faso's goal.

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 addresses 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 health facilities 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 supported the TS of the OHP and the AMR AMR-TTC to strengthen governance and effective MSC on AMR and to optimize the use of antimicrobial medicines in the human and animal health sectors. Particularly in the animal sector, MTaPS has supported the DGSV to develop and validate a draft ministerial order regulating antimicrobial use 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, supported the TS-OHP to draft Inter-ministerial Order No. 2020-210/MS/MINEFID/MESRSI/MAAH/MRAH/ MEEVCC to establish the OHP TS. This inter- ministerial order, which defines 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 connecting MTaPS to the OHP. MTaPS supported the TS-OHP to review and update the inter-ministerial orders establishing the TTCs, which were then submitted to the respective ministers for signature. MTaPS also worked with the TS-OHP and the AMR-TTC to validate the list of members for the AMR-TTC's five sub-commissions. The RUA sub-commission held its first meeting in July 2019 to introduce the OHP and AMR-TTC to its members and to discuss its TOR.

MTaPS, in collaboration with the DGSV and other partners, supported the development of guidelines for AMU in the animal sector and drafted a ministerial order regulating AMU in animal health. To ensure proper AMU, MTaPS also supported DGSV in developing 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 three TOT sessions for 15 veterinarians (2 female, 13 male) and 42 livestock technicians (4 female, 38 male) using the developed training package. With funding from the Ministry of Animal Resources and Fisheries, participants from the TOT will go on to train livestock technicians at the peripheral level of the health system. MTaPS plans to support the DGSV in printing and disseminating the AMS guidelines before the peripheral-level trainings.

WHO and the General Directorate of Pharmacy, Medicines, and Laboratories led a review of Burkina Faso's EML in 2020. As part of the process, MTaPS provided technical assistance to ensure that antibiotics were classified according to WHO AWaRe categorization. In FY21, MTaPS supported NDRA in printing and disseminating 1,500 copies of the EML, which included AWaRe categorization of antibiotics, to assist HCPs with following proper prescribing practices and safeguarding patients from harm. In FY22, MTaPS also assisted NDRA in drafting the national therapeutic formulary (NTF).

MTaPS supported DPH in establishing and training DTCs in 10 selected HCFs. A total of 250 DTC (60 female, 190 male) members were trained on AMS. 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 antibiotic use highlighted the unavailability of facility-level infectious disease STGs. A PPS on antibiotic consumption and use conducted in July 2022 at the Regional Hospital of Banfora revealed that 136 (including 75 female patients) out of 176 hospitalized patients (77.27%) were being treated with antibiotics.

Finally, MTaPS supported DGAP, DPH, and *Direction de l'Information Pharmaceutique et de l'Usage Rationnel des Produits de Santé* (DIPUR) in conducting supervision visits to the *Centres Hospitaliers Régionaux* of Tenkodogo, Ziniaré, Kaya, Banfora, Koudougou, Gaoua and the *Centre Hospitalier Universitaire Régional* of Ouahigouya, the *Centre Hospitalier Universitaire* (CHU) Sanou Souro of Bobo-Dioulasso, and the *Centres Médicaux avec Antenne Chirurgicale* of Zorgho and Pissy to assess the functionality of their respective DTCs. These supervision visits revealed that DTCs do not hold regular meetings and lack relevant STGs, a list of hospital medicines and consumables, training on RUA, and information on the availability, removal, and adverse effects (PV) of medicines. The supervisors

recommended to the respective hospital management teams to 1) appoint designated staff members to lead their facility's DTC, ensure its full functioning, and organize regular DTC meetings; 2) support development of hospital-specific therapeutic protocols and a hospital formulary; and 3) advocate for hospitals to allocate a budget line to support their DTCs.

YEAR 4 ACHIEVEMENTS & RESULTS

During FY22, MTaPS supported the TS-OHP to convene an induction meeting of the presidents and vice-presidents of its seven TTCs in order to draft their TOR. MTaPS also supported the AMR-TTC in organizing one regular meeting. MTaPS collaborated with FAO and the Country Health Information Systems and Data Use project to organize OHP meetings and strengthen coordination between the AMR-TTC and OHP. Additionally, MTaPS, in collaboration with WHO, supported the AMR-TTC and the TS-OHP in developing Burkina Faso's new NAP-AMR for 2021-2024. The assessment of the previous 2017-2020 NAP-AMR, conducted in April 2021 with support from MTaPS, informed the development of the 2021-2024 NAP-AMR.

In collaboration and coordination with TS-OHP and OH partners, MTaPS strengthened the organizational and governance structure of the AMR-TTC by defining the TOR, roles and responsibilities, and composition of the AMR-TTC and its sub-commissions. MTaPS supported the AMR-TTC in preparing meeting agendas, taking notes, sharing resolutions with stakeholders, and following up on recommendations and action items.

In collaboration with FAO, the Ministry of Water, Energy, and Environment (the current chair of the OH steering committee), and other AMR stakeholders, MTaPS supported the leadership of the AMR-TTC in organizing one quarterly meeting to review activity implementation by IPs and any challenges encountered. MTaPS also supported one RUA sub-commission meeting. Additionally, MTaPS supported the participation of two MOH representatives in the month-long antibiography and antibiotherapy interuniversity diploma course for sub-Saharan Africa, organized by the University of Nazi Boni and the University of Montpellier.

MTaPS, in collaboration with FAO, supported the DGSV in drafting a ministerial order regulating antimicrobial use in the animal sector, which was then submitted to the minister of agriculture, animal resources, and fisheries for signature.

In collaboration with WHO, MTaPS supported NDRA in developing the 2022 NTF.

Finally, MTaPS supported DPH and *Direction de la Qualité des Soins et de la Sécurité des Patients* to monitor prescribing and dispensing practices at the Regional Hospital of Banfora. MTaPS also supported DPH in conducting one field visit to all MTaPS-supported DTCs.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA I: EFFECTIVE MSC OF AMR

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

MTaPS supported the TS-OHP in organizing a quarterly meeting of the RUA sub-commission to introduce the AMR-TTC to the RUA sub-commission; 15 participants (including 5 females) from the MOH; Ministry of Agriculture, Animal Resources, and Fisheries; and the Ministry of Environment attended the meeting to discuss the following agenda items:

- Presentation of the OHP
- Presentation of the AMR-TTC, its TOR, and its functioning
- Presentation of the RUA sub-commission, its TOR, and its functioning
- Presentation and discussion of the RUA sub-commission's activities

RESULT AREA 2: IPC

N/A

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

Support DPH, Direction de la Qualité et des Soins de Santé (DQSS), and AMR-TTC in monitoring the functionality of DTCs in 10 facilities

From July 4 to 8, 2022, MTAps, in collaboration with DPH, supported the Regional Hospital of Banfora in carrying out a PPS on antibiotic consumption and use. DTC members conducted the survey to paint a picture of antibiotic use in the regional hospital. Results showed that 136 (including 75 female) out of 176 hospitalized patients (77.27%) were being treated with antibiotics.

MTaPS, under the leadership of DGAP and Professor Poda Armel from the teaching hospital Sano Soro of Bobo-Dioulasso, supported DPH in developing training modules on the guide for good prescription practices for antimicrobials in Burkina Faso during a workshop held August 8-12, 2022. The workshop gathered experts in infectious diseases, pneumology, obstetrics and gynecology, dermatology, and pediatrics from institutions throughout Burkina Faso; medical biologists from MTAps-supported HFs; *Direction de la Qualité des Soins et de la Sécurité des Patients*; DIPUR; and CHU-Yalgado Ouedraogo. In total, 17 participants (including 2 females) attended the workshop.

From September 12 to 22, 2022, MTAps supported DGAP, DPH, and DIPUR in conducting supervision visits to all MTAps-supported facilities to assess the functionality of each DTCs. The supervision visits revealed that the DTCs do not hold regular meetings and lack relevant STGs, a list of hospital medicines and consumables, training on RUA, and information on the availability, removal, and adverse effects (PV) of medicines. The supervisors recommended that the respective hospital management teams 1) appoint designated staff members to lead their facility's DTC, ensure its full functioning, and organize regular DTC meetings; 2) support the development of hospital-specific therapeutic protocols and a hospital formulary; and 3) advocate for hospitals to allocate a budget line to support the DTCs.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- A flexible and long-term approach is essential for encouraging HFs to continue with AMS improvements, particularly when HFs must prioritize minimum functions in the context of greater budget uncertainty, given sudden changes in the country's stability.

ACTIVITIES & EVENTS FOR NEXT QUARTER

FY23 work plan activities are still under review and pending approval.

Table 6. Quarter 4, 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		OHP developed a strategic plan, which was validated on March 25, 2022, and will be submitted to the OHP steering committee for official endorsement. The inter-ministerial orders establishing the AMR-TTC, and its sub-commissions have already been submitted to the steering committee for signature.
Activity 1.1.2: Provide technical assistance to the AMR-TTC in completing the establishment of and capacitating the AMS subcommittee, including its human, animal, agricultural, and environmental sector TWGs	5.4	1.1		MTaPS, in collaboration with other stakeholders, is advocating for the ministries involved in the OHP steering committee to make the OHP fully functional. MTAps had supported the AMR-TTC to carry out an induction workshop for the AMR-TTC sub-committee heads during the previous quarter, during which the president, secretary, and members of the AMR-TTC and its five sub-committees were nominated.
Activity 3.2.1: Support DGSV in developing and validating a draft ministerial order regulating antimicrobial use in the animal sector based on the developed AMS guidelines	5.4	3.2		MTaPS supported DGSV in drafting a ministerial order regulating AMU in the animal health sector. DGSV has submitted the ministerial order to the minister of agriculture, animal resources, and fisheries for final review, approval, and signature.
Activity 3.2.2: Support DGSV in printing and disseminating guidelines for RUA in the animal sector	5.4	3.2		The final review of the guidelines is complete. The secretary general of the Ministry of Agriculture, Animal Resources, and Fisheries signed a preface for the guidelines document, which is now ready for printing.
Activity 3.2.3: Review the NTF of the national EML and other health products	5.4	3.2		Under the leadership of NDRA, a designated group of experts reviewed and updated the NTF. The revised draft NTF is now ready for official validation and endorsement.
Activity 3.5.1: Support DPH, DQSS, and AMR-TTC in monitoring the functionality of DTCs in 10 facilities	5.4	3.5		Throughout FY22, MTAps supported the establishment of 10 DTCs and trained 250 (60 female, 190 male) DTC members on AMS. MTAps supported DPH in conducting a PPS at the regional Hospital of Banfora. MTAps also supported DGAP, DPH, and DIPUR in conducting supervision visits to MTAps-supported facilities.

C. CAMEROON

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

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

MTaPS also planned to support the classification of antibiotics in the human sector, following recommendations from the WHO AWaRe categorization, and to 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 will address some of 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 will be implemented in coordination with activities supported by other partners, especially those funded by USAID and the US CDC. In consultation with MOPH, MTaPS activities have been designed to avoid duplication and enhance synergies and complementarity.

CUMULATIVE PERFORMANCE TO DATE

MTaPS has supported the coordination of AMR activities through the organization of 18 routine meetings of the TS of the AMR MCC, the AMS and IPC TWGs, other OHP members, and partners to monitor the implementation of AMR activities.

MTaPS has supported the baseline assessment of IPC practices in 38 HFs, development of IPC training curricula, establishment of ICCs in 12 HFs, development of the national IPC guidelines and action plan, training of 174 health staff (79 female, 95 male) in IPC, CQI of IPC practices in 12 HFs and the development of a national surveillance protocol to monitor HCAIs.

MTaPS supported the DPML to carry out the situational analysis of AMS-related policies in the animal and human sectors, to develop a national integrated AMS action plan, to establish DTCs in 12 HFs, train 239 HCPs (134 female, 105 male) in AMS, and CQI of AMS activities in supported HFs.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS supported the organization of a coordination meeting between the TS-MCC and OHP to strengthen linkages between these two bodies and to advocate for creating the MCC. MTaPS also

supported a workshop for OHP stakeholders to review the regulatory framework of the OHP and supported a second meeting to review and validate the report on the assessment of the NAP-AMR prior to updating the plan.

MTaPS continued to strengthen the technical capacity of key government stakeholders and health care providers during the celebration of AMR-related event days, such as WAAW, a conference of the Society of Cameroonian Microbiologists, and World Hand Hygiene Day. MTAps also supported the printing and dissemination of the national IPC guidelines, development of the national IPC action plan, drafting the national HCAI surveillance protocol, and CQI of IPC practices in MTAps-supported HFs.

MTaPS continued to implement AMS programs by supporting the DPML to remotely monitor DTC activities in the 12 MTAps-supported HFs via WhatsApp and via onsite supervision of the DTCs. This process helped identify areas for improvement when facility improvement plans were reviewed.

QUARTER 4 ACHIEVEMENTS & RESULTS

MTaPS supported a two-day workshop for OHP stakeholders to review the regulatory framework of the OHP.

MTaPS supported the Directorate of Health Promotion and Department for the Control of Disease, Epidemics, and Pandemics to draft tools for the surveillance of HCAIs.

MTaPS continued to support DPML in remotely monitoring DTCs via the WhatsApp platform.

RESULT AREA 1: EFFECTIVE MSC OF AMR

Support MSC of AMR activities through regular meetings of the AMR governance committee

On August 2-3, 2022, MTAps supported a two-day workshop of OHP stakeholders to review the regulatory framework of the OHP. The previous document establishing OHP within the Zoonosis Program did not have a clear legal framework regarding scope or future prerogatives. It was within this context that the Steering Committee of the PNPLZER instructed that the regulatory framework of this program be reviewed, so it could be fully enacted as a crucial part of OHP in Cameroon. As a first step, MTAps supported PNPLZER in organizing the two-day workshop with various stakeholders to update the regulatory framework. The workshop brought together 41 participants (31 male, 10 female) from different ministries of the OHP and support partners.

At the end of the meeting, the regulatory framework was updated. Also, a working group was constituted and asked to finalize and submit the revised document for approval and signing by the prime minister.

RESULT AREA 2: IPC

Support the Directorate of Health Promotion to monitor HCAIs at the health facility level

From September 20 to 24, 2022, MTAps supported the Directorate of Health Promotion; Department for the Control of Disease, Epidemics, and Pandemics; IDDS; and other relevant MOH departments in organizing a five-day workshop to draft a national protocol for the surveillance of HCAIs. This

workshop brought together 23 participants (10 male, 13 female) from the central, regional, and HF levels of the health system pyramid.

At the end of the workshop, a national protocol for the surveillance of HCAs was drafted, including data collection tools. The participants chose four priority HCAs to be included in the protocol, following CDC and WHO guidelines: SSI, central line-associated bloodstream infections, ventilator-associated pneumonia, and catheter-associated urinary tract infections.



Group work during the workshop to develop HCAI surveillance protocol, September 2022 in Douala. Photo credit: Alphonse Acho

This protocol will be useful in standardizing the HCAI surveillance approach in Cameroon HFs and enable MOH to soon estimate the burden of HCAI. MTaPS plans to support the Directorate of Health Promotion in the future to evaluate the HCAI surveillance system and adapt an HCAI surveillance framework. During the last two days of the workshop, representatives from the 12 MTaPS-supported HFs were briefed on the surveillance protocol and the use of notification forms for reporting suspected cases of HCAs.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

It is not enough to merely include input from local counterparts working at the strategic level when developing policy documents. It is also beneficial to involve local actors who work at the operational level in conceiving these documents. It is also helpful to debrief actors at the operational level on the use of policy documents so that they can apply the policies effectively.

ACTIVITIES & EVENTS FOR NEXT QUARTER

The PY5 work plan is pending approval.

Table 7. Quarter 4, FY22, Activity Progress, Cameroon – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Support MSC of AMR activities through regular meetings of the AMR governance committee	5.4	1.1		MTaPS supported the organization of a coordination meeting between the TS-MCC and OHP to strengthen linkages between these two bodies and to advocate for creating the MCC. Afterwards, MTAps supported a two-day workshop for OHP stakeholders to review the regulatory framework of the OHP.
Activity 1.2.1: Support the TS of the AMR MCC and OHP to update the NAP-AMR	5.4	1.2		FAO supported evaluating the existing plan as a first step, IDDS supported recruiting two national consultants to develop a first draft, and MTAps supported a meeting to validate the assessment report of the existing plan. The review and validation of the updated plan is still pending because of internal conflict between stakeholders.
Activity 2.2.1: Strengthen technical capacity of key government AMR stakeholders and health care providers	5.4	2.1		MTaPS supported the capacity building of 116 health staff, including interns, on hand hygiene protocols during the celebration of World Hand Hygiene Day. 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	5.4	3.5		MTaPS carried out the onsite supportive supervision of all 12 IPC committees.
Activity 2.5.2: Support the Directorate of Health Promotion to monitor HCAls at the HF level	5.4	3.5		MTaPS supported the organization of a five-day workshop to draft the surveillance protocol.

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 NAP-AMR strategic objectives 4 (reduce incidence of infections through effective sanitation, hygiene, and prevention measures) and 5 (improve rational use of antimicrobials in human and animal health and environmental sectors). 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 in strengthening the governance of ICCs, improving IPC practices, conducting AMS practices in HFs, and developing and implementing systems to monitor AMU and consumption at both national and facility levels.

CUMULATIVE PERFORMANCE TO DATE

Since the launch of MTaPS in September 2018, Côte d'Ivoire has successfully established an MSC mechanism for zoonotic diseases and a TS and TWGs to monitor AMR activities. MTaPS also assessed 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 to address public health threats, including AMR. MTaPS helped establish an AMR TWG to monitor AMR activities. This TWG is connected to OHP through a national coordinating body called the MSC Group. MTaPS helped finalize the TOR and guidance manual for this body and its sub-committees.

In collaboration with WHO, USAID, US CDC, and FAO, MTaPS supported the AMR, IPC, and AMS TWGs with the development and validation of more than 15 reference documents, including the AMR governance manual; the national AMR policy; the 2019–2020 multisectoral NAP-AMR; the national IPC plan; animal-sector IPC guidelines; the national AMS policy, guidelines, and plan, etc.

MTaPS supported a situational analysis of the capacity and functionality of both ICCs and DTCs in 4 university teaching hospitals, 12 regional hospitals, and 4 private clinics in the human health sector and the veterinary clinic of the Ministry of Animal Resources and Fisheries' Regional Directorate of Bouake and the Antirabic Center of Cocody in the animal health sector. MTaPS facilitated the development and validation of documents and training modules in IPC and AMS, training of HCPs, and establishment of a

CQI process in HFs. ICCs and DTCs are now functioning with clear TORs and have developed capacity-building plans.

YEAR 4 ACHIEVEMENTS & RESULTS

To progress smoothly toward capacity levels 3 and 4 of the WHO benchmarks for IHR capacities, MTaPS supported the national AMR Secretariat in establishing and building capacity within the AMR, IPC, and AMS TWGs, in line with NAP-AMR activities. MTaPS supported the AMR TWG in organizing effective coordination through regular meetings, including the AMR TWG quarterly meetings, IPC and AMS Multisectoral Technical Committee bimonthly coordination meetings, and semiannual meetings of the MSC Group. The TWGs continued to organize regular meetings without MTaPS financial support.

MTaPS supported the national AMR governing bodies and key stakeholders to integrate AMR and UHC through activities supporting enforcement of regulations, health systems strengthening, capacity building, and access to health services. MTaPS supported the AMR TWG in improving Côte d'Ivoire's reporting on achievements, experiences, and communications with other countries during regional meetings and regular progress monitoring with data submitted to the regional and global levels, including WHO's Global AMR and Use Surveillance System. MTaPS also supported the AMR TWG in developing, updating, enhancing, and adapting capacity building and training materials and tools for in-person training, with 289 (125 female, 164 male) people trained on IPC and 428 on AMS (114 female, 314 male). MTaPS also supports development of e-learning modules to strengthen the country's capacity for training on AMR-related topics.

In collaboration with the General Directorate of Health, DMHP, Directorate of Public Hygiene and Environmental Health, WHO, USAID, and US CDC, MTaPS supported the AMR TWG in conducting two assessments of the national IPC program by using the WHO IPCAT2. The findings from these assessments were used to target areas of the national program that needed strengthening and to help the country set priorities for updating the national IPC plan.

MTaPS also supported the AMR TWG and other stakeholders in conducting IPCAF assessments in 10 HFs. Data from these assessments were used as baseline to measure progress in implementing IPC activities in the facilities. MTaPS provided technical support to regional IPC focal points, regional trainers, and committee heads to perform repeat assessments in the 10 facilities. As part of the semiannual supervision visits in the 20 supported hospitals, MTaPS supported the AMR TWG and other stakeholders to conduct IPC assessments in one HF by using the WHO IPCAF and HHSFAF. To ensure sustainability, MTaPS encouraged the AMR TWG to transfer responsibility for the IPCAF assessments to either the IPC TWG or national MOH departments (General Directorate of Health, DMHP, Directorate of Public Hygiene and Environmental Health, the National Institute of Public Health) on a semiannual basis or to regional MOH bodies (regional health directorates and health districts) on a quarterly basis. The IPC TWG has since led site visits to establish hygiene and IPC committees and to evaluate the functionality of existing hygiene and IPC committees in 20 human HFs and 2 veterinary clinics in Côte d'Ivoire. MTaPS supported the AMR TWG in training 289 HCPs (125 female, 164 male) in IPC and conducting a supervision visit to the university teaching hospital at Angre.

MTaPS supported the AMR TWG in developing an adapted assessment tool from the Systems for Improved Access to Pharmaceutical Services program to continually assess and improve the functionality of DTCs. MTaPS supported the development of training materials based on the national AMS policy and guidelines to improve AMS capacity in the same 20 human HFs and 2 veterinary clinics noted above. MTaPS supported the Veterinary Services Directorate in establishing AMS focal points and training staff members on AMS in the two veterinary clinics. MTaPS also supported the AMR TWG in providing AMS training to a pool of 18 master trainers. These master trainers then went on to train 36 regional trainers in AMS, who will in turn provide training to facilities in the human health sector.

In the private sector, MTaPS strengthened collaboration between the National Pharmacists Association, Ivorian Pharmaceutical Regulatory Authority, and the AMR-TWG to implement and monitor antibiotic use. MTaPS trained 126 HCPs, including 95 pharmacists from private sector facilities (private pharmacies, pharmacists associations, and wholesalers) and 31 medical doctors, public sector pharmacists, and biologists on the rational use of antibiotics.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

In May 2022, MTaPS supported the AMR Secretariat to organize a meeting to transform the AMR Multisectoral Coordination Group into a smaller group to facilitate its incorporation into the OHP. During the same meeting, MTaPS helped the AMR Secretariat present the results of the July 2022 TrACSS. MTaPS also helped the AMS-TWG to hold two coordination meetings to review progress with AMS activities and prepare for the planned supervision of DTCs. MTaPS attended a multisectoral workshop organized by the AMR-TWG with the support of Breakthrough Action to develop the national AMR advocacy plan. MTaPS also provided technical, logistical, and financial support to the AMR multisectoral bodies to organize 18 meetings for a total of 167 participants (including 72 female participants).

RESULT AREA 2: IPC

MTaPS, in collaboration with the IPC TWG, organized a training of 30 HCPs from two private clinics in Abidjan. Two IPC trainers and one central IPC master trainer facilitated a three-day training in each facility, including 14 sessions on IPC related topics. Trained HCPs are now able to implement IPC practices in their respective HFs.

MTaPS supported the IPC TWG to conduct two one-day meetings and one five-day workshop to initiate the process to develop, validate, and integrate IPC indicators into the DHIS2. In collaboration with the MTC4, MTaPS supported regional IPC trainers and IPC focal points to conduct repeat IPCAF assessments and IPC committee supervisions in 10 HFs, including a two-day supervision of IPC committee members in the university teaching hospital of Angre.

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

MTaPS supported the AMS-TWG in training 12 DTC members and 9 other HCPs (medical doctors, pharmacists, laboratory staff) from a private clinic. The training focused on DTC activities and AMS to strengthen DTCs' capacities to implement AMS activities and establish a CQI process in their facilities.

MTaPS then supported the AMR-TWG in monitoring CQI in the Regional Hospital of Aboisso and *Clinique Medical du Grand Centre de Yopougon*. In collaboration with WHO, MTAps also supported the AMR-TWG in analyzing data collected in preparation for the planned workshop to review AWaRe categorization of antibiotics in the NEML.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

The availability of technical documents is important to guide implementation of activities. The availability of AWaRe categorization guidance documents and the tool facilitated analysis of data collected. The designation of regional IPC focal points and a pool of regional IPC trainers and their orientation on the IPCAF, HHSFAF, and WASH-Facility Improvement Tool facilitated the transfer of IPC competencies to the regional level of the health system.

ACTIVITIES & EVENTS FOR NEXT QUARTER

Activities in the FY23 GHSA work plan for Côte d'Ivoire are still under review and pending approval.

Table 8. Quarter 4, FY22, Activity Progress, Côte d'Ivoire – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Strengthen functionality of the MCC by organizing effective coordination through regular meetings of the AMR TWG	5.4	1.1	N/A	<ul style="list-style-type: none"> ■ MTaPS supported the AMR-TWG in holding four meetings, including one to review results of the TrACSS assessment and one to launch the reorganized MCC. ■ MTaPS helped the AMR-TWG in organizing two one-day meetings of the AMS-TWG to review progress & regional orient the supervision team members in preparation for joint DTC supervision visits to 20 HFs.
Activity 2.1.1: Support the AMR TWG in strengthening the IPC program at the national and facility levels	5.4	2.1	N/A	<ul style="list-style-type: none"> ■ MTaPS, in collaboration with MTC4, supported IPC trainers and IPC focal points in conducting repeat IPCAF assessments during 2-day site visits to 10 hospitals.
Activity 2.3.1: Support the AMR TWG in beginning the process of integrating data from the IPCAF, IPCAT2, and scorecard evaluations into DHIS2	5.4	2.3	N/A	<ul style="list-style-type: none"> ■ MTaPS supported MTC4 in conducting two meetings to initiate the process to integrate IPC indicators into DHIS2. ■ MTaPS then supported MTC4 in selecting and validating 24 indicators and their reference sheets, of which 10 key indicators were ultimately selected for integration into DHIS2 and the IPC National Strategic Plan for 2023-2027.
Activity 2.5.1: Strengthen functionality of IPC committees in the human health sector and the capacity of HCPs to implement IPC	5.4	2.5	N/A	<ul style="list-style-type: none"> ■ MTaPS supported the capacity building of 30 HCPs to implement IPC at 2 private clinics in Abidjan. ■ MTaPS, in collaboration with the IPC TWG, supported regional IPC trainers and IPC focal points in conducting supervision visits to IPC committees at 10 hospitals. ■ MTaPS supported two master trainers to conduct one supervision visit to the university teaching hospital of Angre by using the WHO IPCAF and HHSFAF tools.
Activity 3.1.1 (year 3): Support the AMR TWG in improving the NEML by using the WHO antibiotic AWaRe categorization	5.4	3.1	N/A	<ul style="list-style-type: none"> ■ MTaPS supported the expert group responsible for AWaRe categorization to prepare for data analysis. Then, MTaPS supported the AMS-TWG, in collaboration with WHO, to analyze data collected on resistance profiles. The consolidated results will serve as a basis for developing the draft AWaRe categorization by the experts from microbiology, epidemiology, and clinical services.
Activity 3.5.1: Support the AMR TWG in improving the governance and oversight system for AMS in HFs, including monitoring implementation of related policies, guidelines, and standards	5.4	3.5	N/A	<ul style="list-style-type: none"> ■ MTaPS supported the AMR TWG in organizing the competency-based training of 21 HCPs in 1 private clinic (Polyclinique Indenie).

				<ul style="list-style-type: none"> ■ MTaPS supported the AMS TWG in organizing supervision visits to Clinique Medical du Grand Centre de Yopougon and the Regional Hospital of Aboisso to monitor progress in CQI implementation and AMS. ■ MTaPS also supported the AMS TWG, in collaboration with the regional health directorate and health districts, to conduct a 1-day online training for 20 HCPs on the organization of the AMR TWG.
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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. The MTaPS GHSA portfolio is focused on three GHSA-specific result areas: MSC on AMR strengthened, IPC improved, and AMS improved.

The strategic approach and actions are focused on supporting the critical path to achieving higher capacity levels as outlined in the JEE tool and WHO Benchmarks for IHR capacities. In DRC, the goal of achieving good patient outcomes will be met using multidisciplinary and multisectoral collaboration to improve IPC and AMS. MTaPS' strategy is to base its activities and implementation on guidance from the 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 AMR.

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 PYI, 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 PYI are:

- **MSC:** MTaPS helped DRC make progress in MSC/AMR by supporting 100% (4/4) of level 2 actions, 50% (2/4) of level 3 actions, 75% (3/4) of level 4 actions, and 60% (3/5) of level 5 actions. These numbers reflect only MTaPS' support and do not include the achievements of other organizations.
- **IPC:** MTaPS supported progress in IPC by supporting 60% (3/5) of the level 2 actions, 67% (4/6) of the level 3 actions, 40% (2/5) of actions recommended for capacity level 4, and 20% (1/5) of the level 5 actions. In collaboration with the DPM, MTaPS also supported the hygiene department in carrying out the first IPC assessment at the central level using the WHO IPCAT2.
- **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 has also supported 50% (3/6) of the actions recommended for capacity level 3, 28.6% (2/7) of actions recommended for capacity level 4, and 57% (4/7) of the actions for capacity level 5. MTaPS also supported the establishment of 12 DTCs in 12 HFs to oversee and coordinate AMS interventions at the facility level as pilot sites.

YEAR 4 ACHIEVEMENTS & RESULTS

The USAID Mission and DRC GHSA team, including a representative from MTaPS, conducted joint GHSA visits in Lubumbashi in the province of Haut-Katanga, to introduce GHSA activities. The joint GHSA program site visits in Haut-Katanga gave MTaPS the opportunity to launch AMR activities in this part of the country. MTaPS selected *Cliniques Universitaires de Lubumbashi* (CUL) and *Hôpital Kenya* to implement AMR activities, given their leading role in training health institutions in Haut-Katanga. During the visits, MTaPS also conducted an AMR sensitization meeting at CUL for HCWs, including representatives from the human and animal health sectors. During the sensitization meeting, MTaPS presented and elaborated on the following topics:

- The GHSA program and IHRs—WHO benchmarks
- DRC's JEE scores
- The AMR issue as an untimely phenomenon
- The drug discovery gap and the drying pipeline of new antimicrobials
- The WHO AWaRe categorization of antimicrobials



MTaPS DRC country project director at the University of Lubumbashi during AMR sensitization meeting (Photo credit: MTaPS DRC)

Additionally, in collaboration with the National Pharmacovigilance Center and DPM, MTaPS supported the establishment of four DTCs (two in Lubumbashi at CUL and Kenya Hospital, and two in Kolwezi at General Reference Hospital of Kolwezi-HGRK and Mwangeji Hospital). A total of 80 (36 female, 44 male) DTC members were trained in the rational use of medicines (especially antibiotics) as part of AMS CQI. MTaPS also supported the MOH, General Directorate for the Organization and Management of Health Services and Care (DGOSS), and DPM to establish the last DTC in Kinshasa at Initiative Plus private Hospital. A total of 33 (13 female, 20 male) DTC members were trained on the rational use of medicines. The participants developed action plans for their HFs, and baseline data were collected to track medicine use indicators through an iterative quarterly data review process.

With MTaPS support, the DTCs collected antibiotic use data as part of CQI in Kinshasa, Nord Kivu, and Ituri. Data collected were related to medicines prescribing patterns (especially for antimicrobials) and patients' knowledge on medicines prescribed. Through this exercise, antibiotic use issues were identified, and corrective measures were implemented.

In collaboration with the WHO, MTaPS also supported the DPM to conduct the TrACSS for 2022. The TrACSS is conducted on an annual basis to assess the implementation progress of the NAP-AMR. TrACSS is a multisectoral survey that used to be limited to the human and animal sectors, but it is now extended to the environmental sector. TrACSS 2022 shows improvement in various areas compared with TrACSS 2021 and 2020, but in some areas the previous scores were just maintained, as reported in the table below.

Table 9. Summary of the TrACSS results in selected areas in comparison to the previous years*

TrACSS Indicators	2020	2021	2022
Multisectoral & OH coordination	B	D	D
Progress on NAP-AMR development	C	D	D
Raising awareness on AMR risks and responses	B	C	C
Training & professional education in farming, food, & 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-AMR	No	No	Yes

*Scores range from A to D, with A as the lowest score and D as the highest score.

In addition, MTaPS supported the MOH through the Directorate of Hospital Hygiene to conduct an IPC assessment at the central level using the WHO IPCAT2. This assessment provided IPC baseline data for the central level and covered six IPC components: IPC program, IPC guidelines, IPC education and training, surveillance of HAIs, multimodal strategies, and monitoring/audit of IPC practices and feedback.

MTaPS also collaborated with the DPM and the MOH's Directorate of Hospital Hygiene in 2022 to support DLMA to carry out a facility IPC assessment in eight animal care facilities, including four farms and four veterinary clinics, using the adapted IPCAF tool. The assessment scored four facilities at the Intermediate level and four at the Basic level. The assessment conducted in the five additional facilities provided baseline data to allow future review and comparison of these facilities. The April 2022 assessment was a repeat assessment for three of the eight assessed facilities. Compared with the August 2021 assessment, two maintained the same level; one rose a level; and one dropped a level. The results demonstrate that the animal sector still has much to do to improve hygiene conditions in its health facilities.

MTaPS supported the MOH through the Hygiene Directorate to conduct an IPC assessment at the central level using the WHO IPCAT2 tool. The exercise provided baseline data for the central level. The assessment covered six IPC components: IPC program; IPC guidelines, education, and training in IPC; surveillance of HAIs; multimodal strategies; and M&E/audit of IPC practices, restitution of results, and supervision of activities. From the assessment results, the Hygiene Directorate developed a plan to improve IPC services at the central level.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

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

From July 12 to 14, 2022, MTaPS, in collaboration with DLMA, supported the DPM in organizing the supervision visit to 3 selected farms in Kinshasa. The supervision visits aimed to:

- Collect information on the supply, management, and use of antimicrobials
- Identify antibiotics used for animal care and those used for growth
- Integrate the data from the visits into the quadripartite assessment (WHO-FAO-OIE-United Nations Environment Program [UNEP])
- Make recommendations based on findings

Animal health and human health teams from the MOH, the Ministry of Livestock and Fisheries, the MOA, and the Ministry of the Environment were involved in the visit. The findings of the supervision visit were used to improve the TrACSS 2022 assessment, including the addition of the following subjects: existence of and M&E plan for the implementation of the NAP-AMR and training and professional education in the agricultural, food, and environmental sectors.

RESULT AREA 2: IPC:

N/A. No IPC activities in Q4.

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

Support the NC-AMR to strengthen the oversight of compliance with AMS policies and regulations in the human, animal, and environmental health sectors

N/A. No activities in Q4.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- Through sensitization and training, MTaPS helped the DRC government consider AMR a priority health issue that must be tackled in the country. The government has designated focal points for AMR in each sector as well as coordination mechanisms. To this end, WHO has recommended DTCs as a mandatory governing structure 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 the continuous effectiveness of DTCs, MTaPS conducted an AMS CQI training 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

FY23 GHSA Work Plan under review and pending approval.

Table 10. Quarter 4, FY22, Activity Progress, DRC – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
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	5.4	1.2		MTaPS, in collaboration with DLMA, supported the DPM in organizing the supervision visit to 3 selected farms in Kinshasa. MTaPS supported the DPM and NC-AMR to conduct the 2022 TrACSS.
Activity 3.1.1: Support the NC-AMR to strengthen oversight of compliance with AMS policies and regulations in the human, animal, and environmental health sectors	5.4	3.1		MTaPS supported the DPM in holding preparatory meetings to disseminate the revised NEML, which integrates the WHO AWaRe categorization.

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 the available funds, MTAps continued supporting 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 were built on MTAps achievements in previous years, as well as achievements of the previous USAID-funded Systems for Improved Access to Pharmaceuticals and Services program. These activities include coordination with various country programs and partners that are providing pharmaceutical system or supply chain support, implementing policies and practices that optimize use of CDRs, building technical and managerial capacities in pharmaceutical management in coordination with other partners (GHSC-TA, IHP, and the new USAID MIHR and Safe Surgery in FP and Obstetrics projects in eastern DRC), and strengthening civil society engagement by enhancing the involvement of formal groups that have community representation in medical product management (monitoring and oversight at HFs and CCSs).

CUMULATIVE PERFORMANCE TO DATE

The MNCH, FP/RH, and TB portfolios of the USAID MTAps Program contribute to DRC's efforts in achieving the SDGs and the targets for ending preventable child and maternal deaths by providing technical assistance at all levels (DPSs, HZs, HFs, CDRs, and community organizations). This assistance contributes to building stewardship, technical, and managerial capacities to reduce barriers to access to essential MNCH, FP/RH, and TB products and supplies in the North Kivu and Ituri provinces in eastern DRC and to strengthen management of medical products and the pharmaceutical system in general.

During previous years (FY20, FY21 and FY22), MTaPS has been implementing MNCH interventions, as a systems-strengthening approach targeting the registration of MNCH products, dissemination of MNCH protocols and job aids, strengthening the stewardship and coordination role of the DPSs through the medicines TWGs, and facilitating community and civil society engagement with regards to medicines management at the HZ and HF levels.

MTaPS also supported the DPS in establishing provincial quantification committees in Nord Kivu and Ituri to address quantification-related weaknesses at the provincial and HZ levels. These quantification committees are responsible for estimating the need requirements of medical products for their respective provinces. In addition, MTaPS, in collaboration with the European Union and Global Fund, supported a quantification training of the committee members. The training was coupled with a provincial quantification exercise. During these workshops, provincial forecasts were made for HIV, malaria, TB, FP, and MNCH. A gap analysis was also completed at the national level, in collaboration with the *Programme National d'Approvisionnement en Médicaments*, the USAID/GHSC-TA Project, Global Fund, and other MOH-specific programs.

MTaPS, in collaboration with the USAID/Integrated Health Program, supported the national MNCH program General Directorate of the Family and Specific Groups (DSFGS/DI0) in developing and disseminating treatment protocols and job aids for using oxygen, heat-stable carbetocin, tranexamic acid, folic acid, and amoxicillin DT. Participants included members of the National Acute Respiratory Infections Control Program, the National Program for Reproductive Health (PNRS), and DPM; anesthesiologists and resuscitators from the University of Kinshasa; the DRC national president of gynecologists and obstetricians; partners (MTaPS and IHP); and DSFGS, including the director.

In FP, MTaPS supported the national RH program to define the FP community package, specifically the contraceptive kit for CCSs, and to estimate the needs for CCSs in Nord Kivu and Ituri provinces. Participants included community health workers (CHW), DPS, and HZ teams, as well as representatives of partners (MTaPS, UNFPA, IMA-PATHFINDER), CDRs, *Centrale d'approvisionnement des médicaments de Bunia* (CADIMEBU) in Ituri, and *Association Régionale d'Approvisionnement en Médicaments Essentiels* (ASRAMES) in Nord Kivu. The workshop selected six FP products to be part of the reduced package: cycle beads, subcutaneous Depo-Provera (Sayana Press), oral combined pill, progestogen-only pill, and female and male condoms. MTaPS also supported the national RH program 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 that provide FP services. The survey aimed to estimate the private sector contribution to the couple-years of protection in Ituri and Nord Kivu provinces and understand the gap in the national statistics that only includes public sector contraceptive data.

In the area of TB, MTaPS supported the Ituri provincial TB program in organizing the first ever training of CHWs on directly observed treatment and TB product management in Bunia and Nizi HZs. The training aimed to strengthen the capacities and engagement of CHWs in providing effective care that reduces patients' suffering by preventing and/or curing TB in the community.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS assisted the DPM in holding a training workshop on processing MA requests for new members of the registration committee. The workshop provided training for new members who recently joined the registration committee to improve the processing of MA requests during future registration sessions. The training focused on the following subjects:

- Evaluation of injectable products (finished products, in particular), their technical specifications, validation of the sterilization process, and stability
- Good manufacturing practices (GMP) for injectable products
- Presentation of official references, including documents, books, and websites describing the limits of impurities, excipients, tests, summaries of product characteristics, dissolution, and other parameters to be checked

Twenty participants attended the training and received a brief orientation on GMP to better understand the content of technical dossiers submitted for registration.

At the provincial level, MTAps supported Provincial Health Inspectorate (IPS) pharmacy inspectors in conducting field visits to pharmaceutical wholesaler companies in Ituri and Nord Kivu to ensure that imported products are registered and authorized in the DRC before being sold. The IPS decided to extend the inspection visits to NGOs, given the considerable quantity of products they managed. The inspection visits focused on identifying unregistered medical products being imported by local companies and identifying products with MAs that will expire in the next six months and alerting wholesalers to renew their registration. The inspections revealed the following points:

- With the exception of ASRAMES, the inspections noted the presence of many products with valid MAs at the companies visited.
- OCC, which is one of the customs services, continues to systematically use the MA directory (a tool developed with MTAps' support) to check whether medical products are registered before carrying out any product analysis at the country's points of entry.
- In Ituri, IPS put several products imported by MEDAIR under seal because of the lack of import and MA documentation. To ensure that this situation does not happen in the future, MTAps supported MEDAIR to comply with current MA requirements in DRC.

In addition, MTAps supported IPS in organizing feedback meetings on the inspection visits carried out at NGO and wholesaler warehouses. Participants included NGOs working in the health products supply chain area and members of the medicines TWG and customs officers (*Direction Générale des Douanes et Accises* and OCC). These meetings were also an opportunity to raise awareness among wholesalers and IPs on the product registration process so that they select only registered and authorized products.

In collaboration with and through financial support from the Global Fund, MTAps supported the DPS Ituri in organizing a 5-day training on quantifying medicines and other health products for management teams in 24 HZs. This training aimed to build the capacity of HZ management teams in forecasting and improving health product management at the operational level. Seventy-two participants attended the training, consisting of three representatives per HZ: the manager, pharmacist, and data manager.

MTaPS also supported DPS through the quantification committee, in collaboration with the *Programme National d'Approvisionnement en Médicaments* and the Global Fund, in organizing a workshop to quantify malaria, FP, TB, and HIV/AIDS products, as well as other essential medicines for the 17 HZs located in the southern part of Nord Kivu province. HZ representatives estimated their needs for these categories of products for FY 2022.

In addition, per USAID/DRC's request, MTAps, in collaboration with USAID MIHR and the GHSC-Technical Assistance projects, quantified MNCH products for the 10 HZs supported by USAID MIHR in Nord Kivu. The collaboration resulted in an estimate of MNCH commodities to be procured by USAID for FY 2022. The quantification report was submitted to USAID/DRC through GHSC-Technical Assistance to begin procurement through USAID GHSC-PSM.

To increase the engagement of communities and civil society groups in managing medical products and their capacity to participate effectively in oversight and other activities, MTAps continued supporting the HZs to organize quarterly one-day meetings of CODESAs in Nord Kivu and Ituri. The purpose of the meetings was to increase community engagement in health product management, build communities' capacity, and ultimately improve the management of medical products at the HF and CCS levels. To date, key results include:

- Good collaboration between health center managers and RECOs in Nord Kivu
- Improved participation of community members in comanaging health products in HFs
- Improved transparency in managing health commodities
- Improved accountability in management through the effective participation of the community in inventories

In addition, MTAps collaborated with the DPS, HZs and HFs in Nord Kivu and Ituri to train 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; management of the reduced package of FP commodities at the community level; projection of annual needs for amoxicillin DT 250 mg, ORS-Zinc kits, and paracetamol for CCSs; and development of a distribution plan. Participants identified several challenges that hinder the availability of health commodities in the two provinces; RECOs not trained since 2016; low availability of new tools in the CCSs; and shortage of MNCH and FP products in CCSs.

MTaPS also supported DSFGS/D10 to endorse the newly developed protocols and job aids for the use of heat stable carbetocin, tranexamic acid, and folic acid. To this end, a one-day Central Technical Coordination Committee meeting was held under the leadership of the MOH Secretary General, who is also the President of the Committee. Representatives from various MOH directorates and departments, USAID, UN organizations, foreign embassies, NGOs, and other IPs attended. After their endorsement, MTAps supported the printing and dissemination of the protocols and job aids.

In FP, MTAps supported 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 that provide FP services. The survey aimed to estimate the contribution of the private sector to the couple-years of protection in Ituri and Nord Kivu provinces to understand the gap regarding the national statistics that only include public sector contraceptive data.

In the area of TB, MTaPS collaborated with Action Damien to support the DPS and provincial TB coordination in Ituri to organize a 4-day awareness-raising campaign for active detection of TB and adherence to TB treatment in Bunia and Nizi HZs. During the campaigns, 41 sputum samples tested TB-positive out of 248 sputum samples collected in Bunia HZ. In Nizi HZ, out of 634 suspected cases referred to the screening center (*Centre de Soins et Diagnostique de Tuberculose*), 77 tested TB-positive, including 4 cases of TB/HIV coinfection. These figures justify the importance of continuously supporting TB awareness-raising campaigns to improve the TB detection rate. MTaPS will continue to advocate with the provincial TB coordination structure for the involvement of more partners to support awareness-raising and TB detection activities.

YEAR 4 ACHIEVEMENTS & RESULTS

No activity took place in Quarter 4.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- Large-scale organization of active mass screening campaigns for TB, especially in HZs with artisanal mining sites and those with internally displaced populations, makes it possible to diagnose and treat TB in time, and contributes to breaking the chain of transmission of TB in the medium term.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.2: Support the functioning of provincial medicines TWGs in Nord Kivu and Ituri	October 2022
Activity 1.2.1: Enhance the role of CODESAs and community outreach units (CACs) in health commodities management at the health center and community levels	October 2022
Activity 3.2.1: Assist the DPS and HZs to strengthen the data collection system to improve the availability, quality, visibility, and use of logistics data for decision-making	November 2022
Activity 5.1.1: Support the DPS to implement recommendations from the survey on the consumption of contraceptives in the private sector to fill the information gap on couple-years of protection in Nord Kivu and Ituri	November 2022

Table 11. Quarter 4, FY22, Activity Progress, DRC – MNCH

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
No activity took place in Quarter 4.				

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 provide targeted technical assistance to Ethiopian stakeholder institutions in three result areas of the AMR action package: effective MSC, IPC, and optimizing use of antimicrobial medicines through effective implementation of AMS programs. These interventions are meant to support the country on its pathway toward improving its JEE scores to meet the priorities of the GHSA compared with the baseline JEE done in 2016, where the country scored limited capacity level 2 for both the IPC and AMS components.

CUMULATIVE PERFORMANCE TO DATE

MTaPS Ethiopia has worked in close collaboration with the MOH and RHBs to implement priority actions of the WHO Benchmarks for IHR capacities on MSC, AMS, and IPC. In the area of MSC, MTaPS support during PY1, PY2, and PY4 contributed to the completion of 75% of capacity level 2, 75% of level 3, and 75% of level 4 actions. During the period, MTaPS supported the revision of the NAP-AMR and establishment of an AMR unit within the MOH. To strengthen the operational capacity of the NAMRAC, MTaPS facilitated its restructuring, including updating its membership to ensure broader stakeholder participation and revision of its TOR. Support was also provided in the development of TORs for its IPC and AMS TWGs.

In AMS, MTaPS supported the practical implementation of AMS interventions at selected referral hospitals and the revision of the NEML and national STG for general hospitals, based on the WHO AWaRe categorization of antibiotics for the first time in Ethiopia. MTaPS support contributed to improving AMS by completing 100% of capacity level 2, 50% of level 3, 14% of level 4, and 14% of level 5 benchmark actions. Facility-level support to further improve the scores continued this year.

As part of improving the country's capacity in IPC and emergency response to COVID-19, MTaPS supported the revision of the IPC reference manual and IPC training materials and built the capacity of IPC focal persons at the national, regional, and facility levels by providing training to 2,712 HCPs. MTaPS also supported the MOH in identification of gaps in the national IPC program, using the WHO IPCAT2 and the design of a central-level IPC improvement plan, and it provided technical support to HFs to improve their IPC performance using the WHO IPCAF. An initial group of 21 hospitals conducted IPCAF self-assessments with support from MTaPS. A later assessment conducted at 4 of the hospitals showed substantial improvement in their IPCAF score. Of the 4 hospitals, 1 progressed from the Inadequate to the higher end of the Basic level score. The second progressed from the Basic to the Intermediate level. The other 2 hospitals maintained their IPC levels but improved their IPC score by 20–25%. MTaPS support contributed to improving Ethiopia's progress toward achieving higher JEE scores in IPC by supporting 80% of capacity level 2, 100% of level 3, and 60% of level 4 of the GHSA benchmark actions.

YEAR 4 ACHIEVEMENTS & RESULTS

During PY4, MTaPS supported the organization of the 39th meeting of NAMRAC to review progress and evaluate the 6-month performance of AMR stakeholders. MTaPS also worked with the MOH and the EPA to celebrate the 10th AMR Day, which engaged various stakeholders and partners. MTaPS provided technical assistance to cascade implementation of the NAP-AMR through development of regional and sector-specific operational plans for the human, animal, and environmental sectors. As part of advancing the AMS program, MTaPS provided technical assistance in the review and dissemination of STGs for general hospitals. Subsequently, MTaPS supported development of an STG implementation manual to strengthen its enforcement and use at hospitals. MTaPS also supported the PMED of the MOH to conduct a facility baseline assessment in 5 hospitals, using the WHO AMS tool to determine the gaps in AMS implementation. Afterward, four HFs developed AMS action plans. Support to the MOH also included development of training materials on AMS. MTaPS supported the training of 24 professionals (25% female) at a TOT level, followed by cascaded trainings to 125 hospital staff (25% female). In collaboration with FAO, 22 (1 female) veterinary practitioners were trained to help advance implementation of AMS at veterinary health service settings. To strengthen the national IPC program, MTaPS provided technical assistance in the review and finalization of the national IPC reference manual and IPC training materials for different health cadres. The MOH conducted a central-level IPC program assessment using the IPCAT-2 and developed an action plan to address gaps in program components. In addition, MTaPS assisted the MOH to finalize the IPC-FLAT, which will be used countrywide and is deployed to MTaPS-supported HFs to conduct IPC baseline assessments. Following the baseline assessments, MTaPS supported 4 hospitals to develop annual facility action plans on IPC.

QUARTER 4 ACHIEVEMENTS & RESULTS

In Q4, MTaPS Ethiopia portfolio accomplished the following key results:

- MTaPS supported PMED to cascade the NAP-AMR through development of one regional operational plan and one sector-specific operational plan by engaging relevant stakeholders and partners in various forums.
- In coordination with the MOH, MTaPS submitted a poster presentation and participated in the ReAct Africa annual conference in Lusaka, Zambia, from July 25 to 28, 2022, where one MOH expert presented Ethiopian accomplishments. By participating in this conference, Ethiopia benefited by sharing its own experiences and learning best practices from other countries.
- MTaPS supported EPA to conduct its 42nd annual conference by providing the keynote address and presenting on AMR in the CPD session.
- MTaPS provided support to the CSD of the MOH to finalize the IPC reference manual and training materials, which is key to subsequent IPC-related interventions.
- MTaPS provided support to 5 hospitals in identifying IPC gaps, of which 4 developed draft IPC action plans pending endorsement from the hospital management.
- MTaPS collaborated with FAO and EAA to organize an AMS training for 22 veterinary professionals (1 female), the first of its kind for the animal health sector.
- MTaPS, in coordination with PMED, provided support to 5 hospitals in various areas including identification of gaps on AMS and training. With MTaPS' help, 4 of the 5 hospitals

established/revitalized their AMS committees, 4 hospitals developed facility AMS action plans, and 4 hospitals organized training events on AMS in which 125 staff (31 female) participated.

RESULT AREA 1: EFFECTIVE MSC OF AMR

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

In this quarter, MTaPS supported AACAHB and the MOH to socialize and cascade the NAP-AMR through a July 15–16, 2022, workshop. There were 55 (16 female) participants drawn from AACAHB, agriculture bureau, environmental protection bureau, the Ethiopian Food and Drug Authority (FDA), the MOH, the MOA, EEPA, research institutes, HFs, professional associations, and international organizations in attendance. The agenda included review of the TOR of the AMR advisory committee of AACAHB and dissemination of the NAP-AMR. The event was an opportunity for the AMR advisory committee to become well acquainted with the NAP-AMR and relevant stakeholders, a key step for them to take charge of responsibilities for regional-level coordination. The workshop concluded by developing a draft regional operational plan aligned with the NAP-AMR. In collaboration with PMED/MOH, MTaPS also supported the development of a combined sector-specific operational plan for three sectors that was derived from the NAP-AMR in a workshop held from August 16 to 18, 2022. The event was attended by 16 (1 female) participants drawn from the MOA, the MOH, EEPA, and 3 RHBs.

Continue to support PMED to organize effective MSC through regular meetings of AMR stakeholders, including animal health and environmental protection

PMED/MOH, with MTaPS support, conducted a plan alignment meeting with RHBs, the Ethiopian Pharmaceuticals Supply Service (EPSS), Ethiopian FDA, Ethiopian Public Health Institute and development partners, from July 22 to 23, 2022. A total of 39 (3 female) participants attended. The event helped the MOH and key government stakeholders to synergize efforts by aligning their AMR-related action plans that feed into the NAP. In coordination with the MOH, MTaPS submitted a poster and participated in the ReAct Africa annual conference, which was held from July 25 to 28, 2022, in Lusaka, Zambia, and was attended by more than 80 participants from Africa and Southeast Asia. The Ethiopian delegates delivered a presentation and poster on the third NAP-AMR which received significant interest and recognition. By participating in this conference, the Ethiopian team benefited from the sharing of experiences and best practices by other delegates and by sharing its own experiences. In addition, MTaPS supported the EPA to conduct its 42nd annual scientific conference held July 29–30, 2022. The EPA is among the most pioneering and vibrant health professional associations in Ethiopia, especially in leading AMR-related events, including the celebration of AMR Day. The conference had outstanding scientific paper presentations and CME topics of importance, including AMR. At the event, MTaPS provided the keynote address and presented “AMR: Global and national perspective and responses” in the CPD session.

RESULT AREA 2: IPC

Update and finalize IPC training materials for HCWs and support staff

MTaPS provided technical assistance to the CSD to organize a workshop held from August 8 to 13, 2022, by engaging the national IPC TWG and CPD officers from the MOH. The workshop had two objectives, i.e., to finalize the IPC reference manual and to standardize the IPC training materials based

on requirements of the CPD program. A total of 20 experts (3 female) participated in this technical review. Accordingly, the IPC reference manual and training materials were finalized and submitted for editorial review.

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



IPC baseline assessment result validation meeting with hospital staff, between July 5, 2022, and July 22-23, 2022. Photo credit: Tewodros

An IPC baseline assessment was conducted at five MTaPS-supported hospitals using the national IPC assessment tool, IPC-FLAT. The 5 facilities include 3 new facilities and 2 from the previously supported 21 facilities that had had a baseline assessment done in PY1 and PY2. For the latter two, a follow-up assessment was done to monitor IPC improvements. Verification of the assessment findings was made by MTaPS and the MOH through discussion with the hospitals' IPC committees and onsite visits. MTaPS also reviewed the assessments and provided feedback and recommendations on

prioritization of activities for developing IPC action plans. Consequently, MTaPS provided guidance to four hospitals to develop draft IPC facility action plans, based on the findings of the assessments. The draft facility action plans of four hospitals (Bishoftu, Eka Kotebe, MCM Korean, and Worabe Hospitals) were reviewed and feedback was provided to the hospital IPC committees. Once each hospital management endorses its facility IPC action plan, MTaPS will support its effective implementation.

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

Support the finalization and dissemination of the revised STGs and EML

In Q4, MTaPS provided technical assistance to PMED in conducting technical review, design, and printing of the STG implementation manual. The goal of this manual is to enhance utilization and adherence to STGs. In addition, MTaPS contributed to revision of the pharmacy chapter of the EHSTG by supporting the MOH to conduct technical review meetings with relevant experts from August 6 to 11, 2022. A total of 16 (all male) technical experts participated in the technical review. The revision of this document provided a good opportunity to institutionalize the AMS program in hospitals by including it as one of the standards for hospital services in the current version.

3.2.1: Continue to support training of health care providers on AMS

MTaPS supported MOH/PMED on AMS implementation by organizing a series of trainings for health professionals for 4 MTaPS-supported hospitals (Worabe, Tibebe Ghion, Eka Kotebe and Bishoftu) from August to September 2022. The trainings aimed to improve awareness and build the knowledge and skill of hospital staff on AMS, so all staff contribute to the effectiveness of the AMS programs in their



Chart review for audit and feedback at Tibebe Ghion hospital, Sept 2-4, 2022. Photo credit: Getachew

respective hospitals. A total of 125 (94 male, 31 female) participants consisting of members of the AMS team and other HCPs, including physicians, pharmacists, nurses, and microbiologist as well as representatives of the DTC, IPC and hospitals' QI committees, attended the training sessions. At the end of each training, participants developed draft action plans, taking into consideration the findings from the baseline assessment, to further strengthen AMS program implementation in their respective hospitals.

In Q4, MTaPS collaborated with FAO and supported the EAA to organize training on AMS program for veterinary professionals from August 29 to 31, 2022, which was the first of its kind for the animal health sector. The training aimed to improve the KAP of animal health practitioners on AMS programs, and to advocate for the AMR strategy to animal health leaders. A total of 22 veterinarians (1 female) attended the training. At the end of the training, participants developed a plan to establish AMS programs in their respective veterinary practice areas. The event also recommended the development of a standardized AMS training package for vet professionals.

Strengthen AMS implementation in targeted health facilities

MTaPS, in coordination with PMED, assisted five MTaPS-supported hospitals to conduct a baseline assessment on AMS. The assessment aimed to identify gaps and possible support areas in enabling implementation of a facility-based AMS program. Based on findings of the assessment, MTaPS provided support to hospitals in various areas. Subsequently, four of the five hospitals established/revitalized their AMS committee, developed an action plan, and organized training events on AMS.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

The support provided to the MOH to adapt the IPC-FLAT tool has started impacting the IPC practice improvement effort at the national and facility levels. The MOH, with support from MTaPS, has applied the tool to identify gaps at selected hospitals, and that information was then used to inform their facility action plan development. In addition, the MOH endorsed the IPC-FLAT to be used as a national tool and is working to include it in the DHIS-2 database, as part of the national health care indicators.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Support the MOH and national AMR MSC stakeholders to implement and monitor progress of the national AMR prevention and containment strategic plan	October–December 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	October–November 2022
Activity 1.2.1: Support the MOH and national AMR MSC stakeholders to improve awareness, education, and training on AMR	October–December 2022
Activity 2.2.1: Support the MOH and selected health facilities to regularly track information on IPC and use it for continuous quality improvement	October–December 2022
Activity 2.2.2: Build capacity of the MOH to provide IPC training to health care workers	October–December 2022
Activity 2.5.1: Support the MOH to sustain IPC improvement practice at the national, regional, and facility levels	October–December 2022
Activity 3.1.1: Support adherence to STGs, EML, and other related standards	October–December 2022
Activity 3.2.1: Improve awareness and knowledge on AMR to achieve behavioral change on antimicrobial prescribing and use	October–December 2022
Activity 3.5.1: Strengthen AMS implementation at targeted HFs	October–December 2022

Table 12. Quarter 4, FY22, Activity Progress, Ethiopia

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.1.1: Support the MOH and national AMR MSC stakeholders to develop sector-specific and regional operational plans based on the revised national AMR prevention and containment strategic plan, including an M&E framework</p> <p>Activity Description: Disseminate the revised NAP-AMR to relevant stakeholders, organize and facilitate advocacy and familiarization workshops, and conduct partner mapping through stakeholder forums</p>	5.4	1.1		MTaPS supported the AACAHB and the MOH to conduct a regional workshop to popularize and cascade OH NAP-AMR to regions. In addition, MTAps supported PMED/MOH to develop a sector-specific operational plan for the 2022/23 budget year, derived from the NAP-AMR. These events attracted significant participation from key stakeholders that are expected to facilitate implementation.
<p>Activity 1.1.2: Continue to support PMED to organize effective MSC through regular meetings of AMR stakeholders, including animal and environment sectors</p> <p>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</p>	5.4	1.1		A meeting for sector plan alignment with NAP-AMR was organized by PMED/MOH, with support from MTAps, and was attended by critical stakeholders and partners, including RHBs. Hence, the individual stakeholder action plans for the upcoming implementation period are expected to be consistent across the sector organizations.
<p>Activity 2.2.1: Update and finalize IPC training materials for HCWs and train staff based on revised IPC guidelines</p> <p>Activity Description: Following revision of the national IPC reference manual, with support from MTAps, the MOH planned to revise corresponding IPC training materials.</p>	5.4	2.2		MTaPS provided technical and financial support to the MOH to organize a workshop by engaging the national IPC TWG and CPD officers from the MOH to finalize the IPC training materials and reference manual.
<p>Activity 2.3.1: Continue to support the MOH and RHBs to monitor IPC improvement in selected HFs by using IPCAF and national IPC monitoring tool</p> <p>Activity Description: Support the MOH and selected facilities to improve IPC practices by identifying gaps and designing improvement plans</p>	5.4	2.3		An IPC baseline assessment was conducted at five MTAps-supported hospitals using the national IPC assessment tool, IPC-FLAT. MTAps provided guidance to four hospitals to develop their draft IPC action plans based on their IPC baseline assessment findings.
<p>Activity 3.1.1: Support finalization and dissemination of revised STGs and EML</p> <p>Activity Description: Support dissemination of the STGs and STG implementation manual after technical review, design, and printing</p>	5.4	3.1		MTaPS contributed toward revision of the pharmacy chapter of the EHSTG, which provided an opportunity to incorporate AMS in this strategic document. The inclusion of AMS in EHSTG is considered key for ensuring sustainability of the interventions.
<p>Activity 3.2.1: Continue to support training of HCPs on AMS at public and private HFs</p> <p>Activity Description: Support the facility AMS committee and facility AMS champions to organize training in their respective facilities with technical support from the PMED and RHBs</p>	5.4	3.2		MTaPS collaborated with FAO to support the EAA to provide training on AMS for veterinary professionals. This training was the first of its kind for the animal health sector. Given the key challenge of the absence of standardized training material for the sector, materials were developed adapted from those of the human health sector.

<p>Activity 3.5.1: Strengthen AMS implementation in targeted HFs</p> <p>Activity Description: Build the capacity of DTCs to facilitate ownership of AMS programs and enhance performance of the facility AMS team</p>	5.4	3.5	MTaPS helped to conduct a baseline assessment of five supported hospitals. Following the assessment, MTaPS has been coordinating with the MOH to provide the needed support in the implementation of AMS activities at the hospitals.
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G. INDONESIA

FIELD SUPPORT ACTIVITIES

OVERVIEW

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

CUMULATIVE PERFORMANCE TO DATE

The implementation of the MTaPS program in Indonesia was approved for one year and five months and will end in May 2023 as per the USAID-approved work plans. Despite the short period of implementation, the program achieved good results in supporting the MOH in HTA and PE activities.

To strengthen HTA activities, MTaPS assisted Pusjak PDK,⁵ the MOH, and InaHTAC in redefining the criteria for HTA topic selection and use of the MCDA technique for topic prioritization; facilitated the development of digital forms for HTA topic nomination for stakeholders; and supported the call for topics launching event. For next year, the MOH determined to select and implement five HTA studies from the proposed topics, which is a significant increase from the current process of two topics per year. To support the MOH to achieve this ambitious target, MTaPS introduced advanced methods to expedite the HTA process. MTaPS initiated capacity building sessions with HTA agents in the use of the RWE calibration method, particularly to support the HTA study on trastuzumab for early breast cancer treatment.

In addition, MTaPS supported the MOH in organizing the 9th HTAsiaLink Virtual Conference October 11–13, 2021, and helped organize a related side event. The MSH-led online pre-conference workshop, “Health Technology Assessment Pathways in LMICs: Scaling up for Sustainability of UHC in Asia”, drew 220 participants from Indonesia, the Philippines, Vietnam, Singapore, Taiwan, and Malaysia representing government agencies, MOHs, academic institutions, the private sector, NGOs, and others. MTaPS also supported the HTAsiaLink committee to develop the conference digest document.

Additionally, MTaPS built MOH capacity in PE tracking. MTaPS first conducted a system-wide landscape analysis of existing and potential sources of PE data and produced a summary brief. Next, in collaboration with the Indonesian HA team, MTaPS compiled existing PE data available from national sources, including the MOH Directorate General of Pharmaceuticals and Medical Devices, the Indonesian FDA, and the National Family Planning Board. MTaPS created and analyzed a PE database in

⁵ Pusat Kebijakan Pembiayaan dan Desentralisasi Kesehatan (Policy Center for Decentralization and Health Financing)

line with the 2011 SHA. The calculation of total 2021 PE will be part of the 2022 National Health Accounts report to be submitted to the Minister of Health at the end of December 2022.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS supported the implementation of HTAsiaLink 2021 by organizing the online workshop, providing language interpreters for each session, and developing the conference report in digest book form. Regarding HTA strengthening activities, MTAps reviewed the current HTA topic selection and agency best practices and documented recommendations for potential interventions for 2022 and subsequent years. The MTAps recommendations, which include the use of MCDA for selecting HTA topics, were accepted by InaHTAC. In collaboration with Pusjak PDK, MTAps facilitated an MCDA workshop to redefine and weight the criteria for assessing HTA topics for a streamlined topic prioritization process. MTAps' key principles in HTA topic selection have been incorporated into the revised HTA guidelines co-developed with the World Bank, InaHTAC, and Pusjak PDK. Regarding the call for topics event, MTAps provided technical assistance to Pusjak PDK to allow a wider variety of stakeholders (e.g., academics, associations, hospitals, private sector) to nominate HTA topics using digital forms developed with MTAps' support.

MTaPS completed the mapping of PE data sources and began tracking PE at the national level. A team of local consultants obtained secondary data from MOH databases and the Indonesia FDA's information system. They calculated an aggregated estimate of Rp 173.27 trillion (USD 11.5 billion) for the country's total PE. The team is completing the analysis by incorporating PE data from the Special Access Scheme for vaccines and adjusting for wastage. The final aggregated figures will be reported to the MOH in November 2022.

QUARTER 4 ACHIEVEMENTS & RESULTS

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

Strengthen the topic selection process for the HTA committee, InaHTAC

MTaPS facilitated a workshop with InaHTAC, Pusjak PDK, and HTA stakeholders to refine the criteria for selecting HTA topics from eight to six. The original eight criteria are high volume, high risk, high cost, high variability, policy urgency, health impacts, cost savings, and acceptance. The proposed six criteria are volume, impact of technology on health, cost of technology, compliance with policy priorities, potential cost savings, and social acceptance. The new criteria were accepted by InaHTAC for their measurable indicators and non-redundancy. Moreover, the criteria will be weighted to reflect the relative importance of one criterion over another in prioritizing HTA study titles proposed by stakeholders. In addition, the workshop discussed the draft revised HTA study topic request form, which will be open for online submission by stakeholders and HTA enthusiasts in October 2022.

InaHTAC and Pusjak PDK began preparing for the call for HTA topics for the 2023 cycle. MTAps provided technical assistance in developing a flowchart detailing the HTA topic selection procedure, weighing the criteria for HTA topic selection, and developing a digital form for stakeholders to nominate HTA topics. Several preparatory meetings were held. On September 28, 2022, InaHTAC held a socialization meeting on invitations for proposed HTA topics to explain the procedures and content of

the digital forms and prepare other supporting documents. The hybrid meeting was opened by the heads of Pusjak PDK and InaHTAC and representatives from universities, hospitals, professional associations, and development partners. It was attended by 62 participants virtually and 26 in person, representing the Social Insurance Agency (BPJS-K), ministries, universities, hospitals, professional associations, and development partners. The call for HTA topics will be open from October to November 2022.

In addition, MTaPS provided critical input to the HTA guidelines developed by the World Bank, particularly in the pre-assessment section. MTaPS' input focused on the criteria for selecting HTA topics, the flow of submissions, and topic selection for decisions on topic priorities to be implemented in the following years.

Build capacity of key stakeholders on HTA methods

InaHTAC, Pusjak PDK, and the University of Gajah Mada held regular meetings on the capacity building approach that MTaPS will use to support researchers to implement the RWE calibration. For the calibration development process, other agents will be invited to carry out the capacity building process together. In the future, many agents can use RWE calibration for other HTA studies. Regarding the HTA study on trastuzumab, MTaPS will assist in the RWE calibration process and, if needed, will invite experts with experience in real-world data/RWE methods that will be used in this study.

Strengthen the appraisal process for the HTA committee, InaHTAC

To complete the literature review portion of the appraisal, Pusjak PDK invited MTaPS as an observer for the appraisal process of an HTA study comparing three cervical cancer screening methods. MTaPS and Pusjak PDK will hold a meeting on observations and literature reviews on HTA appraisal in October 2022.

In addition to the pre-assessment input to the HTA guidelines developed by the World Bank, MTaPS also provided relevant input on the HTA appraisal section, namely, the grouping of study aspects to be assessed and appraisal management, including the recruitment process for the ad-hoc team for HTA appraisal, outputs of each agenda, parties to be involved, and procedures for making appraisal decisions.

Writing the HTAsiaLink Conference digest and publications

MTaPS expanded the publication outline and will be sharing the draft with the co-authors in Pusjak PDK and with InaHTAC members for input in the next quarter. MSH had two abstracts accepted to the 10th HTAsiaLink 2022 in Pattaya, Thailand: "Indonesia's topic selection criteria elicitation process (Delphi)" and "Topic selection weighting using AHP method".

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

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

Building on work from Q3, during which MTaPS calculated PE using data from approximately 70% of drug wholesalers in Indonesia, the team prepared and submitted a brief report with the findings to Pusjak PDK for review. MTaPS then continued data triangulation, organization, and analysis. In collaboration with Pusjak PDK, MTaPS identified the price of narcotic and psychotropic drugs purchased by wholesalers from the e-reporting system and calculated the total price of these drugs distributed by

wholesalers to HFs. MTaPS estimated the quantity of drugs distributed by the 30% of wholesalers that had not submitted data to the wholesalers e-reporting system. The team drew on inputs from various information systems, including the Pharmaceutical Structures Monitoring System, the National Food and Drug Agency, and the Pharmaceutical Surveillance Agency, as an approach to imputing missing data and performing triangulation of PE estimates. In collaboration with Pusjak PDK, MTaPS continued estimating final consumer spending by applying margin calculations and adjusted for the value of buffer stocks and wastage by HFs. Finally, Pusjak PDK and MTaPS conducted discussions with experts to obtain feedback on these adjusted aggregate estimates.

After MTaPS completed the initial calculation of total PE, Pusjak PDK and MTaPS held a consultation meeting in August 2022 with the Directorate General of Pharmaceuticals and Medical Devices, MOH, academic experts, and IQVIA. Representatives from the Directorate General of Pharmaceuticals and Medical Devices expressed appreciation for MTaPS and Pusjak PDK for harnessing data from their information systems to produce national aggregate figures for PE in 2021, which were estimated to be Rp 173.27 trillion (USD 11.5 billion) before adjusting for the volume of buffer stock and final prices. This figure includes PE from approximately 82% of wholesalers and reflects the value of drug distribution from wholesalers to HFs but not end user consumption. Estimates of aggregate PE will change as other information is obtained. For example, MTaPS and Pusjak PDK agreed to add PE data from the Special Access Scheme data for vaccines and medicines and recalculate the wastage rate. The final aggregate figures will be reported after MTaPS completes the preparation, mapping, and analysis of national PE data in November 2022.

Organize, map and analyze national-level pharmaceutical expenditure data

In September 2022, MTaPS started developing the framework for mapping drug data to include the Anatomical Therapeutic Chemical Codes to enable classification by active ingredients and generic content; types of diseases treated; and therapeutic properties, pharmacology, and chemistry. To synchronize with the NHA report, MTaPS also mapped out provider schemes and flows of funding for PE. This activity is expected to be completed by the end of November 2022.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- The application of the MCDA method for the selection of HTA topics was able to expand stakeholder participation and assist InaHTAC in redefining criteria and weighting in determining priority topics for HTA studies. The development of the MCDA method is carried out with Pusjak PDK and InaHTAC members so that mutual learning occurs and effective capacity building through learning is achieved.
- Through MTaPS' support, Indonesia has been implementing PE tracking for the first time with results meeting the standards of MOH and HA experts. The process has been carried out with the HA team and Pusjak PDK to ensure the transfer of skills and knowledge about the process of tracing, mapping, organizing, and analyzing PE data.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Technical assistance on HTA topic selection using MCDA	October – November 2022

Support representatives from Indonesia to attend the 10th HTAsiaLink 2022 in Pattaya, Thailand

November – December 2022

Stakeholder consultation meeting on PE aggregate data, mapping, and analysis

December 2022

Table 13. Quarter 4, FY22, Activity Progress, Indonesia – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1 Strengthen the topic selection process for the HTA committee, InaHTAC	1.1			In preparation for the call for HTA topics for the 2023 cycle, MTaPS provided TA to InaHTAC and Pusjak PDK in systematizing the topic selection process through development of a detailed process flowchart, criteria weights, and digital forms for topic nominations. MTaPS supported the call for topics launching event focusing on stakeholder engagement and familiarizing the revised online topic nomination form. The refinements—new topic selection criteria set, digital forms, and selection procedure—are now an integral part of the revised national HTA guideline co-written with the World Bank.
Activity 1.1.2 Build capacity of key stakeholders on HTA methods	1.1			Weekly meetings have been held with Pusjak PDK, the research team from the University of Gajah Mada, and MTaPS. The implementation of capacity building related to the use of the RWE calibration method was carried out through discussions, technical assistance, and the involvement of other HTA agents so that in the future agents can use RWE calibration for other HTA studies.
Activity 1.1.4. Strengthen the appraisal process for the HTA committee, InaHTAC	1.1			MTaPS conducted a landscape analysis of Indonesia’s HTA appraisal process that consisted of desk reviews, group inquiries, and observations. MTaPS participated in the appraisal of an HTA study on cervical cancer screening. Through close collaboration with the World Bank, critical input based on the landscaping has been incorporated into the revised national HTA guideline. MTaPS and Pusjak PDK will discuss the recommendations to formulate strategic follow-ups in October 2022.
Activity 1.1.5 Writing the HTAsiaLink Conference digest and publications	1.1			MTaPS will share the draft publication outline with the co-authors in Pusjak PDK and InaHTAC members for input. Six participants (three from MTaPS and three from Pusjak PDK and InaHTAC) will present the two accepted abstracts at the 10th HTAsiaLink 2022 in Pattaya, Thailand, November 30–December 2, 2022.
Activity 2.1.2: Support the HA team to compile secondary PE data at the national level	2.1			MTaPS compiled data from approximately 82% of wholesalers and completed an initial calculation of total PE. The MOH provided feedback on these results, and MTaPS continued triangulation and adjustments. Final aggregate figures will be reported after MTaPS completes the preparation, mapping, and analysis of national PE data in November 2022.
Activity 2.1.3: Organize, map and analyze national-level PE data	2.1			The team started developing a framework for classifying PE by active ingredients and types of diseases treated. To align with the overall health accounts report, MTaPS also mapped out provider schemes and flows of funding for PE.

H. JORDAN

FIELD SUPPORT ACTIVITIES

OVERVIEW

MTaPS Jordan's overall goals are to improve pharmaceutical-sector governance, institutional capacity for pharmaceutical management and services, patient safety, and AMR containment.

CUMULATIVE PERFORMANCE TO DATE

MTaPS IPC activities included the rapid IPC assessments of 30 MOH and private hospitals, building capacities of over 1,300 HCPs, developing an e-Learning module on COVID-19, and the national COVID-19 IPC guidelines. MTaPS technical and logistic support, with strong engagement from local counterparts, resulted in successful legislative and institutional procurement reform. Subsequently, capacities of procurement stakeholders were strengthened through a targeted and comprehensive procurement training program. The pharmaceutical supply chain for the MOH was assessed and a report with an implementable action plan to address existing challenges was produced.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS successfully expanded program activities to include the RMS which is the second largest provider of health care services in the country. The activities include updating and standardizing several ICU-related AMR and IPC clinical protocols at the central RMS hospital with a plan to support the institution in expanding the approach to other hospitals.

QUARTER 4 ACHIEVEMENTS & RESULTS

MTaPS launched a standardized, certified IPC training program for all MOH and RMS hospitals in collaboration with the ACIPC, which was delivered to 60 (19 female, 41 male) IPC focal points.

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Coordinate technical discussions among stakeholders, enabling legislative and regulatory reform for vaccine procurement

MTaPS led the coordination of the NVPMP activities and provided technical support in addressing its priorities. Building on the successful legislative reform from FY21, MTaPS developed key guidelines, technical papers, and a comprehensive procurement training curriculum as described below. MTaPS prioritizes the following technical areas: procurement of WHO prequalified vaccines according to current legislation; application of the Pharmacy and Drug Law in relation to procurement of vaccines; and implementation of framework agreements in vaccine procurement, including government-direct international procurement and procurement through UNICEF. These activities are expected to contribute to increase the availability of quality assured vaccines to the population.

Develop implementation guidelines for the framework agreement

The general FAIG was developed and finalized with the GPD. Corresponding training material was developed and integrated into the training curriculum (activity 1.3.3). To further institutionalize the implementation of FAs, the GPD will use the guidelines and the training material to orient new employees.

Develop instructions for the procurement negotiation

Another technical document in support of improving the procurement and availability of vaccines is focused on negotiations. With direct technical engagement of the GPD, the document “Instructions for Procurement Negotiations within the criteria outlined by the Government Procurement Bylaw” was developed and finalized by MTaPS. The instructions are part of the training curriculum to further strengthen local capacities for more competitive procurement of pharmaceuticals, including vaccines.

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

A third technical document in support of improving the availability of vaccines is the assessment report on the procurement of WHO-prequalified pharmaceuticals, including vaccines. The document, developed by MTaPS and finalized with the GPD, outlines two potential scenarios to facilitate market entry of prequalified vaccines. MTaPS held three technical discussions with the WHO legal officer to coordinate, strategize, and prepare for the NVMPC technical workshop. Required MOH-related logistics led to postponement of the workshop to the next quarter.

Improve the monitoring of fair competition in medicine and vaccine procurement

MTaPS engaged the Competition Directorate of the Ministry of Industry and Trade and, in collaboration with the GPD, developed the “fair competition practices.” Corresponding training material was integrated into the training curriculum (activity 1.3.3). The Competition Directorate cofacilitated the training. This marks the first ever collaboration between the GPD and the Competition Directorate.

Build the capacity of stakeholders on procurement best practices

MTaPS began implementation of the Comprehensive Procurement Training Curriculum which includes 3 modules: Module 1: Public Procurement Best Practices; Module 2: Government Procurement Bylaw; and Module 3: FAs, Negotiations, and Fair Competition. A total of 56 participants (25 females, 31 males) received module 1 training in Q4.

As the audience is largely the same for the 3 modules, and due to scheduling challenges, training for modules 2 and 3 will be scheduled in PY5 Q1. This activity is expected to improve the overall procurement processes in Jordan and contribute to increased availability of quality-assured and affordable essential medical products to the public.

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

Improve the MOH’s ability to provide essential medicines and family planning commodities during national emergencies

The MOH requested this activity be canceled due to changes in priorities. MTaPS communicated with USAID in a timely manner. The activity was removed from the FY22 work plan in an approved update.

Strengthen supply chain in the MOH for pharmaceuticals and vaccines

MTaPS completed the supply chain assessment with the PSD. The assessment report, which includes recommendations and an implementation plan aimed at improving the supply chain processes, will be submitted to the MOH next quarter. MTAps presented the assessment results to USAID Jordan and IPs. MTAps started technical work to review/or develop the MOH-prioritized PSD policies and procedures.

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

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

After discussions with the MOH and USAID Jordan, MTAps canceled this activity in the now approved FY22 work plan update.

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

Improve the rational use of antibiotics at select health facilities according to the NAP-AMR (continuation from FY21)

In implementing the RMS Comprehensive Antimicrobial Stewardship Program for Al-Hussein Hospital ICU, MTAps held six technical workshops in collaboration with the National AMR Committee. Protocols were developed for central line-associated bloodstream infections, sepsis, hospital acquired pneumonia, ventilator-associated pneumonia, catheter-associated urinary tract infections, SSIs, gastrointestinal tract infections, and differentiating between colonization and infection. The initiative is expected to better control the nosocomial infection prevalence in the targeted settings.

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

Feedback and data validation have not been received from the MOH study lead. MTAps considered refocusing the study objectives according to available information and the current COVID-19 pandemic context, in concurrence with USAID Jordan.

Improve governance and organizational capacity of the multisectoral ACIPC (continuation from FY21)

The MOH approved the National Policy to Combat MDROs, which was developed by the national ACIPC with MTAps support. In collaboration with the MOH IPC Department, MTAps will develop training material and provide training to improve capacities of IPC focal points from the public (MOH and RMS) and private sectors.

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

MTaPS, in coordination with the ACIPC and the MOH IPC Department, launched a certified IPC training course for 35 IPC focal points from MOH hospitals and Health Directorates. The targeted audience was expanded to include 28 RMS participants (19 female, 9 male). Senior USAID and RMS leadership attended the opening ceremony (see picture). This activity will contribute to enhancing technical capacities of the focal points to implement effective IPC interventions at their facilities.



MTaPS-sponsored certified IPC course for RMS IPC focal points—Opening Ceremony, September 15, 2022.
Photo credit: Transparency for Printing and Design

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

MTaPS coordinated with the MOH SHD to nominate health educators from the Health Affairs Directorates at five governorates for the MTAps-led CASS initiative. MTAps then collaborated with the MOH SHD to conduct a TOT session for health educators in preparation for the AMR awareness sessions in October. This activity is expected to increase awareness of students on AMR containment.

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

The MOH is conducting similar activities with WHO. To avoid duplication, MTAps discussed and reached discontinuation concurrence with USAID Jordan as approved in the FY22 work plan update.

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

MTaPS developed, submitted, and presented four technical reports covering the COVID-19 vaccine safety surveillance to the MOH’s NPVC. The reports summarized and analyzed all the aggregated data and outlined technical and implementation recommendations to improve the outcomes.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
NVPMC Technical Workshop for WHO prequalified vaccine procurement	October 2022
Comprehensive Procurement Training Curriculum—Modules II and III training	October 2022
NVPMC Technical Workshop for the Pharmacy and Drug Law in relation to procurement of vaccines	November 2022
Develop TORs for Al-Hussein Hospital Central AMR Committee	November – December 2022
Submit priority ASP protocols to the RMS	November – December 2022
Conduct CASS activities	October - November 2022
Conduct orientation and training sessions on the National Policy to Combat MDROs for IPC focal points from all health sectors (i.e., MOH, RMS, and private)	November 2022
Conduct basic IPC training for IPC focal points at primary health care centers	December 2022

Table 14. Quarter 4, FY22, Activity Progress, Jordan – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity: Coordinate technical discussions among stakeholders enabling legislative and regulatory reform for vaccine procurement</p> <p>Activity Description: Convene committee with all its new members, provide technical updates, and plan for FY23</p>	1			MTaPS led the coordination of the NVPMC activities, provided updates, and facilitated prioritization of key technical areas for FY23.
<p>Activity: Develop implementation guidelines for the FA, instructions for the procurement negotiation, assessment report on the procurement of WHO-prequalified pharmaceuticals, fair competition manual, and procurement training curriculum</p> <p>Activity Description: MTaPS developed key guidelines, technical papers, and a comprehensive procurement training curriculum.</p>	1			Through close technical collaboration, MTaPS engaged key procurement stockholders and provided technical support in producing procurement documents and training curriculum.
<p>Activity: Strengthen supply chain in the MOH for pharmaceuticals and vaccines</p> <p>Activity Description: In close collaboration with the PSD, MTaPS conducted a comprehensive supply chain assessment and reviewed priority supply chain policies</p>	2			MTaPS completed the supply chain assessment with the PSD. The assessment report, which includes recommendations, and an implementation plan will be officially submitted to the MOH next quarter.
<p>Activity: Improve the rational use of antibiotics at selected HFs according to the NAP-AMR</p> <p>Activity Description: Update antimicrobial prophylaxis and treatment guidelines for selected hospitals and pilot health care centers</p>	4			MTaPS conducted technical workshops for the RMS Comprehensive AMS Program. MTaPS will meet with the Pharmacy and Clinical Pharmacy Directorate and other relevant central MOH stakeholders to follow up on its technical recommendations for the Rational Use of Antibiotics program at MOH facilities.
<p>Activity: Improve governance and organizational capacity of the multisectoral ACIPC</p> <p>Activity Description: Update the ACIPC TOR and support committee meetings</p>	4			MTaPS continued its technical, logistic, and administrative support to the ACIPC subcommittee and will follow up on convening a meeting for the reestablished ACIPC next quarter.
<p>Activity: Support the multisectoral ACIPC in overseeing the implementation of IPC interventions according to the NAP-AMR</p> <p>Activity Description: Support ACIPC with implementation of IPC interventions</p>	4			MOH approved the National Policy to Combat MDROs. MTaPS finalized the contractual steps with HCAC and launched the certified IPC training for MOH and RMS IPC focal points.
<p>Activity: Support the MOH HCAD in raising awareness on AMR and rational use of antibiotics</p> <p>Activity Description: Conduct AMR awareness sessions for school students</p>	4			MTaPS coordinated with the MOH SHD to nominate health educators from Health Affairs Directorates and conducted a TOT session for the selected health educators in preparation for delivering the AMR awareness sessions to school students.

<p>Activity: Support the MOH in raising awareness and promoting reporting of ADRs, including COVID-19 vaccines safety</p> <p>Activity Description: Raise awareness on safety of COVID-19 vaccines</p>	4			This activity was canceled.
<p>Activity: Support the national surveillance of AEFIs with COVID-19 vaccines.</p> <p>Activity Description: Produce comprehensive COVID-19 Vaccine Surveillance System reports.</p>	4			MTaPS submitted four reports to the MOH: 1) August to September 2021, 2) August to December 2021, 3) January to March 2022, and 4) a cumulative report for August 2021 to March 2022.

I. KENYA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The MTaPS Kenya team is supporting three result areas in the AMR action package: optimizing the use of antimicrobials through AMS, strengthening IPC practices, and strengthening MSC through the NASIC and CASIC OHPs. In PY4, MTaPS continued to focus on institutionalizing activities at the national, county, and HF levels. MTaPS focused on strengthening the core governance structures for AMR stewardship at the national and county levels and applying a structured CQI approach with ongoing mentorship to ensure that national, county, and HF plans were implemented as envisaged.

CUMULATIVE PERFORMANCE TO DATE

Through its PY 1, 2, 3, and 4 work plans, MTaPS helped country counterparts improve the JEE score by supporting 50% (31/62) of the benchmark actions. For MSC/AMR, MTaPS supported 75% (3/4) of capacity level 2, 75% (3/4) of capacity level 3, 100% (4/4) of capacity level 4, and 40% (2/5) of capacity level 5 WHO benchmark actions. MTaPS has supported strengthening the MSC structures at the NASIC and CASIC levels, developing and disseminating standardized AMR communique and bulletins to OH stakeholders, and developing the NAP-AMR M&E framework. MTaPS IPC and AMS activities in Kenya are within the human health sector only. In IPC, MTaPS supported 80% (4/5) of capacity level 2, 83% (5/6) of capacity level 3, 80% (4/5) of capacity level 4, and 20% (1/5) of capacity level 5 actions. The focus was on strengthening IPC governance structures at the national and county levels, developing/reviewing IPC guidelines in human health, applying IPC assessment tools, training HCWs, and monitoring IPC and WASH activity implementation using a CQI approach in the focus counties and HFs. In AMS, MTaPS supported 75% (3/4) of capacity level 2, 83% (5/6) of capacity level 3, 14% (1/7) of capacity level 4, and 29% (2/7) of capacity level 5 actions. MTaPS' AMS interventions in Kenya mainly focused on strengthening AMS governance structures at the national level and in focus counties and HFs, reviewing the Kenya EML to incorporate the AWARe categorization of antibiotics, developing and disseminating the national AMS guidelines, developing and disseminating regulatory guidance to HCWs and the general public on optimal use of antimicrobials, developing and implementing the AMS curricula at the pre-service and in-service levels, training HCWs on AMS, and monitoring implementation of AMS activities using a CQI approach in focus counties and HFs.

YEAR 4 ACHIEVEMENTS & RESULTS

In MSC, MTaPS supported the MOH Division of Patient and Health Workers Safety in implementing the NAP-AMR M&E framework through the development, uploading, piloting, and revision of key IPC, AMS, and patient safety indicators into the Kenya Health Information System (KHIS). MTaPS also supported the launch of the Murang'a and Kilifi CASIC work plans developed in PY3. The Kisumu CASIC was inaugurated, and technical assistance was provided to develop its work plan. MTaPS also supported two national AMS TWG meetings, which saw the validation of a national PPS tool that will support increasing

surveillance of AMU. MTaPS provided technical support for the first national AMR forum, which was attended by senior leadership from the MOH; Ministry of Agriculture, Livestock, Fisheries and Cooperatives; several county teams; advocacy groups; and IPs. This forum allowed for government and partners as key players in AMR containment to share their achievements, challenges, and gaps to inform the review of the NAP-AMR. MTaPS supported the commemoration of WAAW 2021 activities at the national and county levels, including the launch and dissemination of AMR-related documents during the WAAW symposium. The launched documents (co-developed by MTaPS) included the IPC M&E framework, National IPC Policy, and National IPC Strategic Plan 2021–2025. MTaPS provided technical assistance in the compilation of the 2nd NASIC AMR bulletin.

In AMS, the team supported AMS governance structures strengthening through MTC/AMS, PPS data collection, and AMC/AMU sensitization conducted in focus counties and HFs. In-service AMS CPD was provided in collaboration with IPNET-Kenya and the Pharmaceutical Society of Kenya, and pre-service AMS training was supported at the University of Nairobi School of Pharmacy. In collaboration with IDDS, MTaPS facilitated joint training sessions on AMS and diagnostic stewardship in Nyeri, Murang'a, and Kilifi. AMS midterm assessments were conducted in Murang'a County to assess the effectiveness of its AMR containment measures. At the county level, the team supported the development, launch, and dissemination of the Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) formulary incorporating the AWaRe categorization. Focus HFs (21 hospitals and 2 community pharmacies in the 4 focus counties of Kilifi, Kisumu, Murang'a, and Nyeri) were supported to implement their AMS standards and practices, which had them receiving onsite mentorship and technical assistance during supportive supervision visits with the aim of developing COEs for AMS. Further support to focus counties and HFs included monitoring AMS and IPC CQI implementation; conducting MTC/AMS and IPC team meetings to update AMS and IPC action plans; and actively participating in and facilitating IPC/AMS capacity building, CMEs, publications, and auditing and monitoring of AMU in the focus HFs.

In IPC, MTaPS provided technical assistance to establish CIPCACs in Kisumu, Kilifi and Murang'a and complete their costed IPC action plans, with formal appointment of CIPCAC members and county IPC focal persons. IPC midterm assessments were conducted in Murang'a and Kilifi counties to assess the effectiveness of IPC interventions following IPC training and mentorship through supportive supervision. Improvements were recorded in HCWM, OSH, and surgical area practices. Integration of OSH and WASH activities into IPC was also achieved. OSH sensitization of CIPCAC members and OSH assessments were conducted in three counties. WASH-FIT assessments were conducted in 12 HFs from the four focus counties. To build human resources capacity, IPC CQI refresher training was conducted in Kisumu and Nyeri counties to bridge the gaps occasioned by transfers, with 54 HCWs trained (32 female, 22 male).

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA I: EFFECTIVE MSC OF AMR

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

MTaPS supported NASIC to generate the first M&E scorecard assessing the implementation of the NAP-AMR. In addition to providing technical assistance during the July 7, 2022, NASIC meeting, MTaPS

provided support in planning and executing the first national AMR forum on July 21, 2022, where MTaPS' focus counties' IPC and AMS focal persons presented their implementation progress. Attended by 110 participants in person and more than 100 virtually, the forum initiated the review of the NAP-AMR, which has an end date of 2022. MTaPS also participated in and provided support during a CASIC review workshop organized by FAO and attended by county AMS focal persons from MTaPS focus counties aimed at documenting the challenges, successes, and lessons learned during CASIC implementation. MTaPS provided technical support to the NASIC Secretariat during virtual WAAW 2022 planning meetings on September 22 and 29, 2022. Finally, MTaPS supported and participated in World Patient Safety Day, where the National Patient and Health Worker Quality of Care Policy and action plan was launched. MTaPS supported six CME sessions and patient health talks in 25 departments across six facilities.

RESULT AREA 2: IPC

Continue strengthening governance bodies for IPC at the national, county, and facility levels for sustainable capacity

MTaPS supported the July 8, 2022, National IPC Advisory Committee progress review and planning meeting and participated in the review of IPC and AMR M&E indicators that had been piloted in Kisumu and Nyeri counties, resulting in indicator revisions based on lessons learned from Kisumu and Nyeri. Kisumu and Nyeri counties are already reporting in KHIS. MTaPS was appointed as a member of the national HCWM TWG and supported a TWG meeting and a three-day workshop to develop national guidelines and procedures for HCWM. MTaPS supported the development of the OSH abstract that will be disseminated to all MTaPS focus counties. This abstract will be displayed at level 4 and above HCFs and is to be adhered to by all employees and employers as per the Occupational Safety and Health Act 2007. Additionally, SOPs on cleaning and disinfection, linen management, and reprocessing reusable medical devices were completed and disseminated. To plan for activities including a DQA and monitoring implementation of IPC CQI action plans in HFs, virtual meetings were held with county IPC focal persons.

Continue providing technical assistance to scale up a continuing professional development (CPD)- and re-licensure-linked in-service IPC training course through the relevant professional associations

Two online trainings where HCWs were awarded CPD points were conducted on July 14 and September 21, 2022, with the Pharmaceutical Society of Kenya (514) and IPNET-Kenya (47), respectively. On September 15, 2022, MTaPS supported a workshop for the National Nurses Association of Kenya (NNAK) to develop a framework for its training academy and integration of IPC and AMS training modules.

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

MTaPS conducted supportive supervision and mentorship sessions in seven HFs in two counties. Additionally, training was conducted in two counties to introduce HCWs implementing the IPC CQI projects to IPC indicators to be reported through the KHIS and the tools for data collection and reporting. A DQA for IPC was conducted in 10 HFs.

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

Strengthening AMS governance structures at national and county level

The MTaPS team, in collaboration with the PPB and following the development of the roadmap for the AMC tool in Q3, continued to support the development of national AMC tools. Two planning meetings were held to review the AMC tool indicators, inputs, and outputs. The team continued with advocacy targeted toward the county leadership in Kisumu and Kilifi counties for the appointment of dedicated county AMS focal persons following the earlier reported challenges with the current focal persons in both counties having multiple competing roles. This long-term advocacy successfully saw the appointment of new county AMS focal persons in both counties.

Strengthening institutionalization of AWaRe categorization of antibiotics

MTaPS continued to provide support to finalize the Kenya National Medicines Formulary (KNMF) through a final review of the document, which incorporated the AWaRe categorization. In addition, the team participated in a Division of Health Products and Technologies (DHPT) meeting to review the guideline for the essential HPT lists on July 19, 2022. MTaPS will support the review of the EML, with other partners supporting the review of other lists. The team developed AWaRe practical guides targeting the hospital setting, primary HCFs, and community pharmacies. These guides aim to provide guidance on AWaRe implementation to various health care settings, which in turn will contribute to appropriate use of antimicrobials.

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

The MTaPS team provided TA and mentorship to focus counties and HCFs, including support to Kilifi County to finalize a rational drug use research protocol and its methodology and data collection tools through a series of virtual meetings. The research will allow the facilities (Kilifi CRH, Malindi SCH, and Mariakani SCH) to identify gaps in prescribing practices, patient care, and facility readiness and assist them with developing specific MTC/AMS actions to mitigate these gaps. MTaPS continued to provide TA and mentorship to its focus facilities to implement their AMS CQI action plan activities. This included an analysis of Gertrude's Children's Hospital PPS data, support to conduct AMC and PV surveillance at Kenyatta National Hospital, and analysis of AMS ward round interventions at JOOTRH in Kisumu County.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- Standardizing data collection tools for AMU and AMC surveillance will ensure better coordination and guidance for hospitals in obtaining critical AMU/AMC trends, support comparisons to be drawn across HFs, and identify gaps in AMS programs, all with the aim of supporting the NASIC in tailoring national AMS activities to mitigate identified gaps.
- To build sustainable capacity, in-service AMS CPD training through professional associations will ensure that human resource competence in AMS practices is enhanced, which will in turn improve AMS practices. This and other activities promote, and support gender equity and inclusiveness as evidenced by the increasing rate of female participation in medical education and training activities.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
<p>Activity 1.1.1: NASIC for coordination, policy direction, review, and M&E of national AMR plan and help to move towards sustainable capacity</p> <ul style="list-style-type: none"> ■ Provide technical support for AMS TWG, CASIC, and NASIC meetings ■ Support the revision of the NAP-AMR ■ Support the implementation of NAP-AMR M&E tools ■ Complete and launch Kisumu CASIC work plan ■ Finalize and disseminate the CASIC orientation package ■ Support the planning and running of WAAW 2022 activities ■ Monitor implementation of CASIC action plans in Nyeri, Kilifi, and Murang'a counties 	October–December 2022
<p>Activity 2.1.1: Continue strengthening governance bodies for IPC at the national, county, and facility levels for sustainable capacity</p> <ul style="list-style-type: none"> ■ Continue support to the Division of Patient and Healthcare Worker Safety in policy review, development, and dissemination ■ Support national rollout of the IPC M&E framework ■ Disseminate the OSH abstract to MTaPS focus counties ■ Train county OSH focal persons ■ Conduct external review of the national IPC guidelines ■ Support MOH in developing HCWM guidelines, SOPs, and IEC materials 	October–December 2022
<p>Activity 2.2.1: Continue providing technical assistance to scale up a CPD- and re-licensure-linked in-service IPC training course through the relevant professional associations</p> <ul style="list-style-type: none"> ■ Support professional associations in capacity building for HCWs on IPC ■ Review and finalize the NNAK academy implementation framework ■ Conduct online CMEs with local professional associations 	October–December 2022
<p>Activity 2.5.1: Continue support to county, sub-county, and facility-level IPC, OSH, and WASH activities for sustainable capacity</p> <ul style="list-style-type: none"> ■ Continue supporting and providing TA during CIPCAC meetings ■ Continue providing mentorship and review of health facility action plans ■ Provide quarterly supportive supervision ■ Sensitize Kisumu CIPCAC on OSH ■ Train OSH focal persons ■ Sensitize surgical teams on surgical prophylaxis in the four counties 	October–December 2022
<p>Activity 3.1.1: Strengthening AMS governance structures at national and county level</p> <ul style="list-style-type: none"> ■ Support rollout of the validated national PPS tool ■ Develop the national AMC/AMU data collection tool ■ Conduct refresher MTC/AMS training in Nyeri and Kisumu counties ■ Conduct AMS midterm assessments in Kilifi County 	October–December 2022
<p>Activity 3.1.2: Strengthening institutionalization of AWaRe categorization of antibiotics</p> <ul style="list-style-type: none"> ■ Finalize, launch, and disseminate the KNMF ■ Disseminate the AWaRe practical guides ■ Review the Kenya EML ■ Monitor AWaRe implementation in focus counties 	October–December 2022
<p>Activity 3.2.1: Strengthening and scale up healthcare human resource capacity for AMS through pre- and in-service trainings</p> <ul style="list-style-type: none"> ■ Conduct online CPD session with professional associations on AMR/AMS-related topics ■ Support the embedding of the pre-service AMS curriculum in learning institutions 	October–December 2022
<p>Activity 3.5.1: Continue support to county, sub-county, and facility-level AMS activities for sustainable capacity</p> <ul style="list-style-type: none"> ■ Conduct quarterly supportive supervision and mentorship sessions in focus counties ■ Provide TA to Kilifi CRH to update and finalize its hospital formulary list ■ Provide ongoing support in monitoring AMS interventions in focus facilities 	October–December 2022

Table 15. Quarter 4, FY22, Activity Progress, Kenya – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.1.1: Continue strengthening the NASIC’s capacity for coordination, policy direction, and M&E of the national AMR plan</p> <p>Activity Description: Support NASIC in implementing the NAP-AMR M&E framework; support CASICs in four target counties</p>	1.1, 5.4	1.1		The MTAps team provided TA during the NASIC progress review meeting for the NAP-AMR. It also provided TA during the first national AMR forum on July 21, 2022, in Nairobi that incorporated the health, environmental, and agriculture sectors from the national and county levels. MTAps supported the finalization of the CASIC orientation package and national basic AMS training material. MTAps also supported six health facilities to conduct CMEs during World Patient Safety Day.
<p>Activity 2.1.1: Continue strengthening governance bodies for IPC at the national, county, and facility levels for sustainable capacity</p> <p>Activity Description: Support development/review and dissemination of IPC documents and establishment of IPC management and coordination structures at the national, county, sub-county, and facility levels</p>	5.4	2.1		Finalized review of draft 2015 IPC guidelines. Provided technical assistance in reviewing implementation of MOH Division of Patient and Health Workers Safety indicators on IPC/AMS and M&E pilot for the patient and health worker indicators.
<p>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</p> <p>Activity Description: Continue to roll out the IPC CPD course in collaboration with the NNAK and other health professional associations</p>	5.4	2.2		Supported the training of 514 participants (278 male, 236 female) in a CME training with the Pharmaceutical Society of Kenya on July 14, 2022. Training with IPNET was conducted on July 21, 2022, with 47 participants in attendance. Also supported a workshop for NNAK to develop a framework for its training academy and integration of IPC and AMS training modules.
<p>Activity 2.5.1: Continue support to county, sub-county, and facility-level IPC, OSH, and WASH activities for sustainable capacity</p> <p>Activity Description: Continue supporting the review and implementation of CQI IPC action plans by the counties and HCFs</p>	5.4	2.5		MTAps conducted supportive supervision and mentorship sessions in seven health facilities in two counties. Additionally, a cascade training was conducted in two counties to introduce health care workers implementing IPC CQI projects to IPC indicators to be reported through the KHIS and recording and reporting tools for data collection and reporting.
<p>Activity 3.1.1: Continue to strengthen national and county AMS governance structures</p> <p>Activity Description: Contribute to strengthening the monitoring system for AMC/U and offer technical assistance to national and county AMS TWG teams in implementing the AMS component of the NAP-AMR M&E framework</p>	5.4	3.1		The team re-initiated discussions with the PPB in relation to the development of the national AMC tool, with a meeting held with the AMC focal person on July 26, 2022, at the PPB to realign activity timelines. A follow-up virtual meeting was held on July 28, 2022, with the core team (PPB staff, NASIC representative, and MTAps team) to finalize team nominations and set a way forward.
<p>Activity 3.1.2: Continue to strengthen institutionalization of AWARe categorization of antibiotics</p>	5.4	3.1		The team participated in the essential HPT lists guideline review meeting on July 19, 2022, with the Division of HPT. A planning meeting was also held to review the essential lists, including the 2019 Kenya EML. Ongoing support was provided to finalize the

<p>Activity Description: Develop and disseminate a national medicines formulary and practical guide on implementation of AWARe categorization of antibiotics at the national and county levels</p>			<p>KNMF by working with the MOH to address the comments generated by editorial teams.</p>
<p>Activity 3.2.1: Continue to strengthen and scale up healthcare human resource capacity for AMS through pre- and in-service trainings.</p> <p>Activity Description: Support delivery of the pre-service AMS curriculum and engage professional associations to roll out in-service AMS trainings</p>	5.4	3.2	<p>No activities held this quarter.</p>
<p>Activity 3.5.1: Continue to support county, sub-county, and facility-level AMS activities.</p> <p>Activity Description: In target counties and health facilities, provide technical assistance in implementation of priority AMS interventions, including monitoring antimicrobial use</p>	5.4	3.5	<p>Continued to support Gertrude's Hospital with writing its PPS findings. MTaPS supported Kilifi County in preparing for its multifacility rational drug use research. A draft research proposal and sampling methodology were prepared to be submitted to the county management for ethical approval. Conducted review meeting with Kilifi team on rational drug use data collected (10 participants from KCRH, Malindi SCH, and Mariakani SCH). Supported the focus counties and HFs with monitoring AMS CQI implementation.</p>

J. MALI

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

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

CUMULATIVE PERFORMANCE TO DATE

During FY19-22, MTaPS worked with GCMN-RAM to develop TOR for the group and its IPC and AMS subcommittees. GCMN-RAM aims to meet quarterly, and the IPC and AMS subcommittees are to meet monthly. GCMN-RAM has been able to organize 6 coordination meetings out of the 12 initially planned to monitor progress on implementing the NAP-AMR. The IPC TWG organized five meetings, and IPCAT2 has been used once a year since 2020. The results obtained in FY22 found 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, compared to just one component scoring at this level in 2020.

The AMS TWG also organized two meetings. The 2021 meeting allowed the AMS TWG to evaluate 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. One AMS core component (regulations and guidelines) had a score of 50%. The other three components (national plan and strategy; awareness, training, and education; supporting technology and data) each had scores greater than 75%. During the second meeting, the AMS TWG took stock of the implementation of activities under strategic objective 4 of the NAP-AMR for 2019-2023. Additionally, meeting participants discussed WHO benchmark 3.4 actions, identifying those achieved and sharing bottlenecks encountered.

MTaPS assisted GCMN-RAM and DGSHP in organizing 2 virtual meetings and 3 supervisory visits to monitor the implementation of IPC activities at the 16 MTaPS-supported HFs. Additionally, MTaPS supported the Pharmacy and Medicines Directorate (DPM) and ANEH in conducting 2 DTC supervision visits to the 16 HFs and 3 virtual meetings with the same HFs.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS supported the MSC group in holding meetings as required of an effective and functioning multisectoral committee that oversees implementation of a multisectoral NAP-AMR. The support contributed to sustained capacity (levels 3 and 4) in WHO benchmark 3.1 and achievement of the

indicator “# of AMR-related in-country meetings or activities conducted with multisectoral participation.” In fact, the country slightly exceeded the target, with 10 out of 8 meetings or activities planned for the fiscal year.

In addition, MTaPS support through supervisory visits and virtual meetings enabled improvements in IPC practices in the 16 facilities supported by MTaPS. The IPCAF, HHSFAF, and COVID-19 scorecard tools were used to assess progress. Each facility’s improvement plan was updated based on assessment results. MTaPS’ monitoring support contributed to sustained capacity (levels 3 and 4) in WHO benchmark 3.3. MTaPS supported two local training institutions in strengthening their capacity to manage eLearning on IPC and AMS. This activity improved the use of the eLearning platform in Mali for pre- and in-service HCWs and progress toward level 3 of WHO benchmark 3.3.

MTaPS Mali helped DPM and ANEH organize and conduct supportive supervision visits to DTCs at the 16 MTaPS-supported facilities and virtual meetings. The activities enabled monitoring of activity implementation from the AMS action plans of 16 DTCs, and, as such, supported progress toward levels 3 and 4 of WHO benchmark 3.4.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Review the NAP-AMR and its M&E plan: MTaPS supported the IPC TWG through DGSHP to review the NAP-AMR and its M&E plan, supporting progress toward the following level 4 actions of WHO benchmark 3.1 for IHR capacities:

- Review plans and progress through regular meetings of the AMR governance committee
- Identify priority actions (based on risk and feasibility) from the NAP-AMR, develop an implementation plan with responsible agencies with established timeline, and begin implementation of these actions
- Identify and map sustained funding for planned activities in the NAP-AMR

RESULT AREA 2: IPC

Support GCMN-RAM in developing a national IPC action plan for the human health sector

MTaPS, in collaboration with WHO and GCMN-RAM, through DGSHP, developed a national IPC action plan. The plan was informed by assessment results from IPACT2 and IPCAF and follows the five-step cycle described in the WHO IPC practical manual that addresses the identified priority core components at national and facility levels. The national IPC action plan is the first one in Mali that integrates all IPC core components as recommended by WHO. This activity enabled progress toward levels 2, 3, and 4 actions of WHO benchmark 3.3. Also, the target for indicator IP 1 “# of updated policies, legislation, regulations, or operational documents for improving IPC,” which is 1 for the current fiscal year, was achieved.

Strengthen capacity of three local training institutions to manage eLearning on IPC and AMS for pre- and in-service HCWs

MTaPS Mali continues to support selected training institutions in managing their eLearning platforms. Since the platforms were established, 244 participants have registered and are distributed as follows:

- Medical doctors, pharmacists, nurses, hygienists: 43%
- Medical students: 44%
- University lecturers and researchers: 4%
- Others: 9%

A total of 27 learners have obtained their course completion certificates on the eLearning platform since it was established. Ensuring ongoing use of eLearning materials requires that local institutions run and update the platforms. This activity allowed the country to train HCWs and students on issued IPC guidelines in line with the JEE benchmark actions for IPC, contributing toward sustained capacity (level 3) in WHO benchmark 3.3.

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

Support DPM in developing and disseminating a DTC training toolkit

MTaPS supported DPM in developing a DTC training toolkit to train health professionals in Mali. It contributes to improving implementation of AMS programs, including monitoring AMU, education/communication, and other interventions to improve antibiotic use, at designated facilities. This activity has led to progress toward level 3 of WHO benchmark 3.4. Also, the activity met the target of indicator ASI, “of policies, legislation, regulations, or operational documents related to AMS developed or updated with MTAps support,” which is one for the current fiscal year.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

The unavailability of DPM staff and members of the national pool of trainers, as well as the high turnover of personnel at HFs impede activity implementation and make it difficult to obtain facility buy-in for establishing new DTCs. To address these challenges, it is necessary to utilize DTC members as trainers and take advantage of the eLearning platform for training.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Provide technical and operational support to GCMN-RAM and its two subcommittees (IPC and AMS)	December 2022
Activity 1.1.2: Review the NAP-AMR and its M&E plan: Resources mobilization (year 4)	December 2022
Activity 1.2.1: Strengthen technical capacity of key government AMR stakeholders (year 5 unapproved)	November 2022
Activity 2.5.1: Support GCMN-RAM and DGSHP in monitoring implementation of IPC practices at HFs (year 5 unapproved)	December 2022–January 2023
Activity 2.5.2: Strengthen capacity of three local training institutions to manage eLearning on IPC and AMS for pre- and in-service HCWs (year 5 unapproved)	October–November 2022
Activity 3.5.1: Support DPM in developing and disseminating the DTC training toolkit—reproduce the treatment guidelines for infectious diseases: Dissemination (year 4)	October–November 2022
Activity 3.5.2: Support GCMN-RAM, ANAES, and DPM in monitoring implementation of AMS practices at HFs (year 5 unapproved)	October–December 2022

Table 16. Quarter 4, 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		Within the framework of animating the OH platform, the OH Permanent Secretariat, with MTAps support, organized the 23rd ordinary meeting of multisectoral coordination OH. During this meeting, the NAP-AMR 2023-2027, developed with MTAps, was presented to advocate with key ministries to facilitate and accelerate its political adoption.
Activity 1.1.2: Review the NAP-AMR and its M&E plan	5	5.4		MTaPS supported GCMN-RAM in reviewing the NAP-AMR 2019-2023 through the following activities: <ul style="list-style-type: none"> ■ Evaluation of NAP-AMR 2019-2023 ■ Organization of a pre-validation workshop for the NAP-AMR, August 8-12, 2022 ■ Organization of a validation workshop for the revised NAP-AMR, August 23-24, 2022 This validated plan will be submitted to political adoption under the leadership of the minister of health.
Activity 2.1.1: Support GCMN-RAM in developing a national IPC action plan for the human health sector	5	5.4		In collaboration with WHO, MTAps continued to support DGSHP in developing a national IPC action plan. MTAps' support included: <ul style="list-style-type: none"> ■ Developing a draft national IPC action plan ■ Holding the pre-validation workshop on September 7-9, 2022, and the validation workshop on October 5-6, 2022
Activity 2.5.1: Support GCMN-RAM and DGSHP in monitoring implementation of IPC practices at HFs	5	5.4		Supported DGSHP in conducting supervision visits in the designated 16 HFs
Activity 2.5.2: Strengthen capacity of three local training institutions to manage eLearning on IPC and AMS for pre- and in-service HCWs	5	5.4		Supported the Faculties of Medicine and Pharmacy to orient 74 students and doctors on Mali's e-Learning platform that houses the IPC courses developed with support from MTAps. The orientation took place on August 4, 2022, at the Faculty of Medicine and was chaired by the dean of the Faculty of Medicine. Orientation participants were registered on the platform during this activity.
Activity 3.5.1: Support DPM in developing and disseminating the DTC training toolkit—reproduce the treatment guidelines for infectious diseases	5	5.4		Supported DPM in validating the DTC toolkit developed in June 2022. The professional associations (medical, pharmacist, nurses, midwife, etc.) and four key sectors of the MSC group (agriculture, environment, animal, and human health sectors) were strongly involved. The validated DTC toolkit is available for use at central and regional levels to continue the training and establishment of DTCs in other HFs.
Activity 3.5.2: Support GCMN-RAM, DPM, and ANEH in monitoring the functionality of DTCs in 16 facilities	5	5.4		Supported the following monitoring activities:

				<ul style="list-style-type: none"> ■ A remote discussion with the district hospital of Koutiala to finalize its new action plan ■ A virtual meeting with DPM with the participation of 10 of the 16 HFs supported by MTaPS. These facilities made progress in implementing their improvement plan.
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MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

OVERVIEW

MTaPS Mali's MNCH goal includes strengthening pharmaceutical regulatory systems focusing on registration or MA for all products generally and for MNCH products specifically. This will be done by building the capacity of in-country stakeholders and supporting implementation of the official *Procedure Manual for the Registration of Medicinal Products for Human Use* in Mali. To achieve this goal, MTaPS Mali supports two result areas: 1) improved transparency and accountability of the country's pharmaceutical systems and 2) effective implementation of interoperable pharmaceutical management systems that link patients and products. These areas are directly aligned with the first and third global objectives of MTaPS.

CUMULATIVE PERFORMANCE TO DATE

Since the beginning of implementing its MNCH work plan in Mali, MTaPS supported the update of medicine registration data in the PRO-E-MED database by:

- Entering MA 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 phase and determine next steps

During this activity, the DPM team updated PRO-E-MED and inserted new features, considering the proposals of the DPM and MTaPS teams. The DPM team also developed a sustainability plan during FY22.

YEAR 4 ACHIEVEMENTS & RESULTS

PRO-E-MED was set up in 2018, but DPM was unable to use it properly because of a power surge in 2019 that resulted in the loss of all data in the database. MTaPS supported DPM in strengthening the capacity of its team and in entering 5,518 files into PRO-E-MED, including new applications and renewals, in order to clear the backlog of MA files. Through MTaPS' support, PRO-E-MED has been made fully operational for use by DPM.

QUARTER 4 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PHARMACEUTICAL SECTOR GOVERNANCE STRENGTHENED

Support DPM in operationalizing the MA commission

MTaPS helped DPM organize one quarterly national MA commission medicine registration meeting. Three meetings were held by DPM on schedule in 2022 to examine, approve, or reject MA applications.

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

Assist DPM in updating and disseminating the Directory of Registered Medicines and Medical Products

MTaPS supported DPM in disseminating the updated *Directory of Registered Medicines and Medical Products* to inspectors and customs officers. Currently, the country can provide updates to the directory every quarter. Also, the workshop recommended the directory be edited every six months.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- The dissemination meeting for the *Directory of Registered Medicines and Medical Products* allowed health actors and especially customs agents to familiarize themselves with the document and understand the status of the medications they use. This has contributed to improving the transparency of the medicine regulatory system in Mali, especially as it relates to the import control of medicines.
- The participatory approach used for the dissemination meeting for the *Directory of Registered Medicines and Medical Products*, which included the participation of central level representatives in person and the online participation of regional level representatives, made it possible to optimize time and resources and attain all targets for the activity.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 5.2.8: Support DPM in evaluating the use of medicines within the NEML in HFs (year 5 unapproved)	November-December 2022
Activity 5.4.6: Support DPM in building the capacity of health practitioners on infectious disease treatment guidelines and appropriate prescribing (year 5 unapproved)	November-December 2022
Activity 3.1.6.2: Assist DPM in setting up an operational website (year 4)	November-December 2022

Table 17. Quarter 4, FY22, Activity Progress, Mali – MNCH

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Support DPM in operationalizing the MA commission	1		1.1	MTaPS supported DPM in organizing a quarterly national MA commission medicine registration meeting
Activity 1.1.2: Streamline registration of essential medicines, including MNCH products	1		1.1	<p>MTaPS helped DPM analyze its procedure manual for registering medicinal products for human use developed in 2021. This is the logical continuation of strengthening the regulatory capacity of DPM. It aims to identify potential gaps to be filled in accordance with international regulatory procedures and to strengthen collaboration with WHO on the collaborative registration procedure. The analysis indicated the following:</p> <ul style="list-style-type: none"> ■ The new SOPs developed by DPM comply with international regulatory procedures. ■ An abbreviated procedure is granted for WHO prequalified products and those evaluated by a drug regulatory authority belonging to the ICH group.
Activity 3.1.6.1: Assist DPM in updating and disseminating the Directory of Registered Medicines and Medical Products	3		3.1	MTaPS supported DPM in organizing a meeting to disseminate the Directory of Registered Medicines and Medical Products; 35 persons from regional and central levels attended this meeting, making it possible to inform health system professionals of the availability of the updated directory, explain its content to them, and facilitate the directory's use.

K. MOZAMBIQUE

FIELD SUPPORT ACTIVITIES

OVERVIEW

In PY4, MTaPS supported ANARME, PI and the HIV/AIDS program of Mozambique to complete the one-year follow-up of all enrolled patients in the active safety surveillance of HIV patients treated with TLD using the ongoing ANARME, PI–led approach to supportive supervision and mentoring visits that were employed in PY3. MTaPS continued to provide guidance to the team of ANARME, PI and the HIV program to manage the collected data on the electronic PViMS including data cleaning, periodic data review, sex-disaggregated analysis, and undertaking causality assessment for any reported AEs. In the same year, building on the experience obtained from the active safety surveillance of TLD, MTaPS continued to provide technical assistance to strengthen the active PV system to enable ANARME, PI and the HIV/AIDS and TB programs to systematically and actively monitor AEs related to TPT medicines for the treatment of latent TB infection in HIV patients. Following approval of the TPT protocol, MTaPS trained ANARME, PI personnel as TOTs on the protocol and SOPs. Further support to ANARME, PI and the TB and HIV national programs included conducting cascade trainings for HCPs at the five selected sites in Maputo City and Gaza province that implement the active surveillance of TPT, and it also included the adaptation and use of PViMS for TPT data management. In addition, MTaPS leverages ongoing support provided to HFs by the CDC IPs, i.e., *Centro de Colaboração em Saúde* (CCS) and Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), to facilitate timely and effective implementation of the TPT active surveillance activity.

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, SOPs, and proper data collection. Following the training, 9 of the 10 selected HFs commenced enrolling HIV/TB coinfecting 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 on-site and virtual supportive supervisions by ANARME, PI and the HIV program to the nine study sites to continuously mentor and support the site HCWs to implement the protocol, identify challenges, develop action plans to address gaps, and undertake corrective actions. In addition, MTaPS, in collaboration with ANARME, the programs, and its MTaPS global expert partner, University of Washington, generated quarterly progress update reports on the enrolled patient numbers, number of follow-up visits, reported AEs, findings of the supervision visits, strengths and challenges in ASM implementation, and recommendations to address them. By the end of the study on February 28, 2022, there was successful enrollment of the targeted sample size of 3,000 people living with HIV with 8,366 patient follow-up visits reported. MTaPS supported ANARME, PI in a data-cleaning exercise to improve the quality of data collected during the patient follow-up visits. Their unique patient records were entered into PViMS. A total of 95 AEs were reported; however, none were

severe. MTaPS supported ANARME, PI to organize a virtual review meeting with all site teams to present the status report with a focus on enrolled patient follow-up. During Q2 of PY4, MTaPS supported ANARME, PI to physically visit the study sites to advise on how to close the ASM activity, and submit all their study materials (tablets, filled data collection forms, and informed consent forms) to ANARME, PI at the central level for final storage and analysis. MTaPS supported capacity building on causality assessment for nine ANARME, PI internal staff, which also provided a practical session on the use of PViMS to conduct the causality assessment for the reported AEs. Data cleaning and sex-disaggregated analysis for the TLD implementation were completed.

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 protocol for TPT active surveillance, data collection forms, SOPs, and training materials, which were approved by the National Bioethics Committee on Health, with further approval from the CDC in PY4 Q2 (March 2022). Five HFs (four health centers and one hospital) across two provinces (Gaza and Maputo City) were selected as study sites. During PY4, there was also periodic engagement with different stakeholders, including ANARME, PI; NTP; USAID mission; CDC and its IPs, i.e., CCS and EGPAF; and the Aurum Institute, to plan for implementation. MTaPS procured some of the hardware (tablets) required for facility-level data collection and management. In April 2022, a TOT was conducted for central-level focal persons from ANARME and staff from CCS and EGPAF. In July 2022, MTaPS supported ANARME, PI to train provincial and district focal persons on the TPT protocol, SOPs, and data collection forms, followed by cascade training to the HF HIV, PV, and TB focal persons from the five study sites. The PViMS tool was updated with TPT data collection forms. Patient enrollment was initiated in August 2022. A coordination meeting was conducted with ANARME, PI focal persons, the national HIV program, and CCS and EGPAF focal persons to discuss implementation status and challenges and develop action plans to overcome them.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS provided support to ANARME, PI to visit the nine study sites to undertake close-out of the TLD ASM. The active surveillance study materials (i.e., the filled data collection forms, informed consent forms and the tablets) were collected and transported to ANARME, PI at the central level. MTaPS supported ANARME, PI to work with the facilities to complete and clean TLD data missing in PViMS. MTaPS held a coordination meeting with ANARME, PI to prepare for their staff training on TLD causality assessment, for which training materials were developed and reviewed by MTaPS technical experts. The theoretical causality assessment training session held in June 2022 was followed by practical training on the use of PViMS tool to perform causality assessment in July 2022. Nine participants from ANARME, PI's PV team were trained. The ANARME, PI staff conducted causality assessment for the reported AEs. MTaPS undertook data analysis to inform development of the ongoing final TLD ASM report.

After in-country approval of the protocol, SOPs, and data collection forms by the National Bioethics Committee on Health in September 2021, the materials were further assessed by the CDC head office and approved in March 2022. Several coordination and planning meetings were held with ANARME, PI

and the TB and HIV programs to agree on HCW training and implementation. The physical forms were piloted at a selected HF, Mavalane HF in Maputo City. MTaPS supported PViMS adaptation for TPT ASM data capture. Updates included creation of a dashboard for monitoring of key performance indicators, improving ease of data entry, addressing data synchronization problems, and including alerts related to data quality, among others, based on the feedback from the TLD ASM sites. MTaPS and its global expert partner, University of Washington, in collaboration with ANARME, PI PV experts, trained the central-level core team from ANARME, PI and staff from CCS and EGPAF on TPT ASM implementation from April 19 to 20, 2022. There were 10 participants (4 female, 6 male), including 8 from ANARME, PI, 1 from CCS, and 1 from EGPAF. This was followed by training of provincial and district focal persons from the two provinces (Maputo City and Gaza province); and training of focal HCWs from the 5 selected HFs on how to implement the TPT ASM.

QUARTER 4 ACHIEVEMENTS & RESULTS

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

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

During Q4, MTaPS supported ANARME, PI to complete and clean TLD data missing in PViMS, then review and analyze the data. In addition, ANARME, PI's PV team conducted causality assessment on reported AEs after a theoretical training and orientation on how to use PViMS to perform causality assessment, both supported by MTaPS. Planning is ongoing to undertake risk factor analysis and incidence rate analysis in Q1 of PY5.

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

In July 2022, MTaPS supported ANARME, PI TOTs to conduct training of 21 provincial and district focal persons (14 female, 7 male) comprising 12 PV focal persons and HIV/TB focal persons from Maputo City (Xipamanine, 1 de Junho, and Albasini Health Centers in Maputo City) and 9 from Mandlakazi and Chokwe districts in Gaza province on the approved protocol, SOPs, data collection forms, and checklists. These focal persons cascaded training to 82 focal HCWs (55 females and 27 males) from the 3 selected HFs in Maputo City (1 de Junho, Albasine, Xipamanine HF) and 2 HFs in Gaza (Mandlakazi Rural Hospital and Chilembene HF) from August 2 to 30, 2022, on how to implement the TPT ASM. MTaPS prepared a quarterly report on the progress of TPT active surveillance implementation that covered the completed trainings. For PViMS, updates were finalized, including configuration and acceptance testing of the TPT dashboard. MTaPS discussed with ANARME and the National Institute of Electronic Governance (INAGE) on plans to move the upgraded PViMS to a live environment. Patient enrollment in the 5 implementing sites was initiated in August 2022. Table 1 lists the enrolled patients by site.

Table 18: Patients enrolled since start of active surveillance system as of September 2022

Name of Health Facility	Location (district, province)	Month enrollment commenced	No. of enrolled patients as of September 2022 (Form A)	No. of follow-ups as of September 2022 (Form B)
Xipamanine	Maputo, Maputo City	August 2022	12	7
Albasine	Maputo, Maputo City	August 2022	7	2
I de Junho	Maputo, Maputo City	August 2022	26	10
Chilembene	Chokwe district, Gaza province	August 2022	8	11
Mandlakazi Rural Hospital	Mandlakazi district, Gaza province	September 2022	12	0
Total			65	30



Dr. Eudoxia Filipe, HIV Program focal person, facilitating the training to the provincial, district, and HF focal persons for TPT protocol implementation in Marracuene, Maputo province, in July 2022 (Photo credit: Eunice Dias Seni, MTaPS)



Dr. Iazia Fernandes, Provincial PV focal person, facilitating the on-site sensitization training to HCWs of Mandlakazi Rural hospital, Gaza province, in August 2022. (Photo credit: Eunice Dias Seni, MTaPS)

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

Causality assessments should be done frequently and not at the end of ASM implementation so that detected AEs can be assessed on time and required decisions and actions can be taken. Conducting causality assessment at the end of ASM implementation meant that the study sites had completed data collection and transferred relevant documentation to ANARME, PI, and some of the HCWs that implemented the study at the HFs had left. Thus, changes in implementation could not be made, nor could AE data be confirmed with a site. MTaPS plans to implement regular causality assessment for the running TPT ASM.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
<p>Y4 Activity 3.1.1: Provide technical assistance to establish an active surveillance system for newly introduced medicines in HIV and TB programs</p> <ul style="list-style-type: none">■ Dissemination of the findings and results of the TLD implementation, including lessons learned and recommendations	October–December 2022
<p>Y4/Y5 Activity 3.1.2: Implement an active PV program for safety monitoring of TPT scale-up in Mozambique</p> <ul style="list-style-type: none">■ TOT of the central-level core team (ANARME, PI, national HIV and TB national staff, and IP focal persons on PViMS) followed by training of HCWs at the 5 sites.■ Supervision of the 5 study sites.■ Preparation of quarterly report on progress of TPT active surveillance implementation, showing number of patients enrolled and followed up, AEs reported, strengths and challenges in implementation of the study, and recommendations to alleviate them	October–December 2022

Table 19. Quarter 4, FY22, Activity Progress, Mozambique – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>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</p> <p>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.</p>	5.3			<p>MTaPS developed training materials for capacity building of ANARME, PI focal persons on TLD causality assessment. The causality assessment training was done virtually for 9 ANARME PV core team staff. It was followed by an orientation on how to use PViMS tool to perform causality assessment. ANARME, PI, with support of MTaPS, completed causality assessment using PViMS and assessment on drug interactions.</p>
<p>Activity 3.1.2: Develop and implement an active PV program for safety monitoring of TPT scale-up in Mozambique</p> <p>Activity Description: Train ANARME, PI and NTP staff on the protocol; support them to cascade the training to focal HCW at the five selected sites; and to undertake monthly/quarterly supervision of implementing sites to provide guidance and mentor the teams to ensure compliance to the study protocol</p>	5.3			<p>Provincial and district staff trained on how to implement TPT ASM from July 4 to 6, 2022. 21 participants (14 female, 7 male) included some HCWs of the 5 HFs and Chokwe district staff of Gaza province; comprised 12 PV and HIV/TB focal persons from Maputo City sites and 9 from Mandlakazi and Chokwe districts in Gaza province. Training of 82 HCWs (55 female, 27 male) was done from August 2 to 30, 2022.</p>

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of MTaPS in Mozambique is to strengthen technical and managerial capacities within the human and animal health systems to contain the emergence and propagation of AMR. This goal is consistent with USAID's strategic objective on slowing the emergence of resistant bacteria and preventing the spread of resistant infections, as well as with the goal of Mozambique's NAP-AMR. Controlling the global hazard of AMR relies on robust pharmaceutical systems worldwide that address appropriate use of and access to medicines, which is the core mission of MTaPS. The MTaPS GHSA strategy is grounded in a system-strengthening approach in three technical areas pivotal to containing AMR: MSC 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 capacities. There was no baseline score on MSC because this indicator was not present in the WHO JEE 1.0 tool used in 2016, but it was included in the revised 2018 JEE 2.0 version. Through its PY3 and PY4 work plans, MTaPS supported country stakeholders to achieve progress in MSC/AMR by supporting 50% of level 2 benchmark actions, with one action completed outside MTaPS support; 50% of level 3 benchmark actions, with the remaining 50% benchmark actions at this level achieved outside MTaPS support; and 50% of level 4 benchmark actions. On IPC, MTaPS supported the DNAM's IPC team to complete 4 of 5 (80%) benchmark actions for capacity level 2 and 4 of 6 (66%) benchmark actions for capacity level 3; while in AMS, MTaPS supported 2 of 4 (50%) benchmark actions for capacity level 2 and 2 of 6 (33%) of level 3.

From PY3, MTaPS has been collaborating with the Ministry of Health (MISAU), ANARME, and the National Institute of Health (INS) to establish a multisectoral coordinating structure for AMR in the country. In PY3, MTaPS supported the government to draft the TOR for the MCC, its secretariat, and TORs for the AMS and IPC TWGs. Three AMR MCC meetings were held. Two IPC TWG and two AMS TWG meetings to review priorities of the NAP-AMR and activities by IPs, and to refine the draft TORs. In PY4, MTaPS continued to support the AMR MCC in organizing meetings. MTaPS also supported the review of the AMR MCC governance structure. The MCC membership structure was validated by MISAU and animal health stakeholders. The TORs of the IPC and AMS were updated while TORs for the new communication, education, and awareness (*comunicação, educação, e consciencialização*, CEC), and surveillance and research (*vigilância e pesquisa*, VIP) TWGs were developed, and all TORs were validated. MTaPS support contributed to participation of key stakeholders in AMR MCC meetings, more coordination among the relevant ministries (human health, animal health, environment), agenda items being more aligned with the NAP, and the IPC and AMS TWG meetings more focused on the use of WHO tools. In addition, the health ministry appointed a focal point for AMR MCC and for each TWG to lead the secretariat and TWGs, respectively. Also included in the agenda of meetings were items related to the availability of in-country data on AMR and prioritization of the implementation of NAP activities by all sectors.

In PY2 and PY3, COVID-19 funds from USAID were leveraged for IPC training in all provinces to bolster the IPC response to the pandemic. Seven HFs were targeted for focused support in the use of standard tools for monitoring IPC and informing programmatic improvement. MTaPS also supported the central level IPC program to identify gaps using the WHO IPCAT2 and to develop an action plan. MTaPS also assisted the 7 HFs improve their IPC performance using WHO's IPCAF. In PY4 Q1, to strengthen the capacity of provincial IPC teams, MTaPS trained 44 master trainers on IPC and conducted a repeat IPCAT2, with the central-level IPC team using the results to help identify priority areas that needed strengthening, such as surveillance of HAIs.

MTaPS, in collaboration with the DNAM Department of Hospital Therapeutics (DTH), ANARME, and INS, implemented the hospital AMS interventions in three selected provincial hospitals (Inhambane Provincial Hospital, Tete Provincial Hospital, and Xai-Xai Provincial Hospital) of the seven priority HFs that had been trained on AMS in February 2020. Given the COVID-19 pandemic, although the three hospitals had established AMS committees with TORs, the committees had ceased functioning. Also, instead of in-person visits, MTaPS facilitated virtual introductory meetings with the hospitals and remotely supported their initial organizational activities. The hospital directors and provincial authorities remained eager to initiate AMS activities in their hospitals. In PY4, MTaPS, in collaboration with ANARME and INS, supported the DTH to design and implement an AMS program in the three provincial hospitals (Tete, Gaza, and Inhambane). A baseline assessment was conducted using the WHO AMS Toolkit. The results were used to develop facility AMS action plans working with the HF staff. MTaPS also supported ANARME to initiate the process of categorization of antibiotics into WHO AWaRe categories, with the aim of inserting this update into the EML and national medicines formulary (FNM). In addition, MTaPS, in collaboration with ANARME, undertook a rapid AMS assessment via desk review of country AMS policies, regulations, and SCM for the human health sector. Based on the findings, a draft NAP for AMS was developed. In addition, MTaPS supported ANARME in developing a draft regulation for prescription-only sales for key antibiotics, which is pending stakeholder validation. These regulations will help establish a firm foundation for AMS in the country by creating a solid regulatory framework to control the use of antimicrobials in the country. This effort complements the USAID MTaPS field support work plan, which from PY1 to PY3 supported revision of laws and regulations pertaining to the role of ANARME as the national regulatory authority.

YEAR 4 ACHIEVEMENTS & RESULTS

During PY4, MTaPS supported the AMR MCC to organize two AMR MCC meetings in November 2021 and June 2022. During Q1 of PY4, MTaPS worked with the Government of Mozambique (GRM) and other partners to help organize WAAW November 18–24, 2021, and a symposium that week that highlighted the AMR MCC's accomplishments. Among the symposium discussions was a session on "Hospital AMS implementation in the COVID-19 era," with speakers from MTaPS-supported HFs. The MCC governance structure was reorganized by MISAU and animal health stakeholders. The former KAP TWG was replaced by the CEC and VIP TWGs to align more to the NAP, and the TORs of the IPC, AMS, CEC, and VIP TWGs were validated. To improve coordination between the AMR MCC and the OHP, MTaPS facilitated meetings and conversations that led to the identification of the information and documentation to be shared by the MCC secretariat to the OHP on a regular basis. Discussions are ongoing to define the differing roles of the OHP and the AMR MCC. Two IPC TWG meetings were

held that achieved the following: the IPC TWG reviewed its performance against its plan of action and adopted guidance on CQI that will be used to sensitize the HFs.

In IPC, in Q1 of PY4, MTaPS trained 44 master trainers (21 female, 23 male) as TOTs at the provincial level. The master trainers then created action plans for the step-down of IPC training to HFs in their provinces. While the TOR of the national IPC TWG has been further refined for the human health sector, MTaPS continues to reach out to the animal and environmental health sectors to incorporate their components into the reviewed IPC-TWG TOR to ensure a multisectoral approach. MTaPS provided guidance to the national IPC TWG and DNAM's IPC team to guide them on the implementation and monitoring of action plans that resulted from assessments using the IPCAT2 and IPCAF tools at the national and facility levels, respectively. Based on the IPCAT2 results and the review of its performance against its action plan, the IPC TWG updated its plan of action to address the identified weaknesses. The repeat IPCAF showed improvement in all components, with the lowest improvement noted in the workload, staffing, and bed occupancy component, due to the facility infrastructure being inadequate to handle the given population size. To build the knowledge and skills of the national IPC TWG, a combination of virtual and face-to-face training and mentoring has been used. The TWG, including the central-level IPC team, has been oriented on CQI methodologies so that they can facilitate expansion of IPC interventions and implement QI in additional HFs not covered by MTaPS in other provinces.

In AMS, MTaPS supported ANARME to initiate the categorization of antibiotics into AWaRe classification. MTaPS also supported ANARME to review the current legal and regulatory framework's adequacy to ensure provision for AMS and made recommendations to address identified gaps. An initial draft AMS plan of action to address identified gaps has been completed, awaiting the assessment and draft from the animal health sector to finalize the multisectoral AMS NAP for the country. In addition, MTaPS supported ANARME to draft a regulation on prescription-only sales of key antibiotics. The draft is under review and will be validated in the next quarter, together with a draft report on review of laws and regulations to ensure inclusion of provisions for appropriate use of antimicrobials.

MTaPS, in collaboration with ANARME and INS, supported DTH to design and implement an AMS program in three selected provincial hospitals, which started with onsite visits for a baseline AMS program assessment undertaken using the WHO AMS Toolkit checklist and an assessment of the functionality of the AMS committee at each supported hospital. During the site visits, analysis of prescriptions was done for the outpatient as well as for several wards, among them pediatrics, internal medicine, orthopedics, surgery, and obstetrics, with comparison to available consumption data and alignment to the available treatment guidelines.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA I: EFFECTIVE MSC OF AMR

Support the governance and organizational capacity of the AMR MCC

During this quarter, MTaPS supported the AMR MCC secretariat in compiling a report on an AMR MCC workshop which focused on formalizing the organizational structure of AMR governance in the country, and during which the TWG TORs were further updated, and their membership reviewed. The workshop report indicated clear action steps and recommendations for following up. MTaPS is working

with ANARME to organize the next AMS TWG meeting, which will review and validate the rapid AMS assessment for the human health sector, the draft report on review of laws, regulations to ensure inclusion of provisions for appropriate use of antimicrobials, and the draft regulation on prescription-only sales of antibiotics. The meeting will also discuss unifying the rapid assessment done in the human health sector with the one done in the animal health sector.

RESULT AREA 2: IPC

Support national IPC TWG in IPC oversight and management

MTaPS provided technical support to the IPC TWG during weekly coordination meetings to monitor health facility IPC action plan implementation and to coordinate HF visits to enhance improvement of IPC practices at the provincial level. MTAps shared the e-Learning module (developed with COVID-19 funding) with DNAM's IPC team and is working with them to review the materials. After this review, the updated materials will be uploaded to the MISAU Moodle platform (PY5 work plan) and made available to professionals and students to build their capacity in IPC. The national IPC TWG members can leverage experience from the intervention hospitals and apply it to other hospitals without MTAps' support, as part of their IPC action plan. With MTAps support, the IPC TWG reviewed the results of IPCAT2 and IPCAF HF assessments to identify gaps affecting IPC implementation. During mitigation, the TWG developed a draft plan for central-level IPC support to the HFs in implementation of their facility IPC action plans, a training plan covering TOT on CQI to be undertaken at the central level, and on-the-job training for HF HCWs.

Support implementation of prioritized IPC interventions in selected HFs

MTaPS supported DNAM's IPC team to monitor progress, identify gaps, and troubleshoot barriers to ensure that action plans are readjusted at the HF level and shared with provincial authorities. MTAps also trained the IPC TWG and provincial IPC focal persons on the use of the WHO IPC assessment tools. MTAps supported HF IPC committees in Xai-Xai, Inhambane, and Tete provincial hospitals to implement training related to HAIs—specifically, how to implement the HAI data collection in the different HF departments—and development of their own HAI monitoring plans based on local priorities.

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

Strengthen the governance of the AMS program at the national level

A workshop on AWaRe classification of antibiotics was conducted in Maputo from August 1 to 5, 2022, with participation of physicians from MISAU, pharmacists from ANARME, and representatives from the National Medicines and Therapeutic Committee (NMTc). MTAps proposed a process for the country to adopt the WHO classification based on global sensitivity/resistance data to finalize the country's national antibiotics list by integrating AWaRe classification and to move toward validation. MTAps supported the development of a report on review of laws and regulations to assure inclusion of provisions for appropriate use of antimicrobials and the development of a draft regulation on prescription-only sales of antibiotics. These documents will help balance access to key antibiotics while preserving their efficacy and avoiding inappropriate use by using the AWaRe classification of antibiotics.

Continue to support design and implementation of AMS interventions in priority HFs

MTaPS collaborated with ANARME, INS, and DTH to undertake and support in-person visits to Tete and Xai-Xai provincial hospitals to provide technical assistance in the implementation of the hospital AMS interventions through the facility AMS committee. A report on the results of the assessment across the three supported facilities is being compiled.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
<p>Activity 1.1.1: Continue to support the governance and organizational capacity of the AMR MCC gearing toward sustainability</p> <ul style="list-style-type: none">■ Undertake workshop to finalize update of mapping of AMR stakeholders and activities; support the TWGs in organizing regular meetings with documented agendas, distribution of meeting minutes, and follow-up on action items	October - December 2022
<p>Activity 2.2.1: Enhance and sustain governance for IPC</p> <ul style="list-style-type: none">■ Support DNAM's IPC team in finalization of the national IPC training package according to the updated IPC manual, and the review of IPC e-Learning module prior to upload into Moodle platform.■ Support IPC TWG to develop the IPC national plan and to develop HAI guideline development (adapted from other GHSA countries)	October - December 2022
<p>Activity 2.5.1: Continue to support the implementation of prioritized IPC interventions in selected HFs</p> <ul style="list-style-type: none">■ Establish and train CQI committee in quality improvement; implement CQI through the IPC TWG and provincial committees	October - December 2022
<p>Activity 3.1.1: Continue to strengthen the governance of the AMS program at the national level</p> <ul style="list-style-type: none">■ Support the validation workshop of the AWaRe classification; as well as a workshop to validate the draft regulation on prescription-only sales of key antibiotics and the report on review of laws and regulations to assure inclusion of provisions for appropriate use of antimicrobials	October - December 2022
<p>Activity 3.5.1: Continue to support the design and implementation of AMS interventions in priority HFs</p> <ul style="list-style-type: none">■ In collaboration with DTH, provide virtual support to the focus HFs in reviewing their progress on AMS action plan implementation, and advise them on interventions to guide improvement in AMS practices.	October - December 2022

Table 20. Quarter 4, FY22, Activity Progress, Mozambique – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.1.1: Support the governance and organizational capacity of the AMR MCC</p> <p>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</p>	5.4	1.1		MTaPS supported AMR MCC secretariat to compile the report of the AMR MCC workshop that focused on formalizing the organizational structure of AMR governance in the country, indicating clear action steps and recommendations of the workshop for follow-up. To further update the stakeholder mapping done in June, MTAps supported the AMR MCC to collect more data on the stakeholders in the IPC and VIP TWGs, an exercise that is ongoing for the AMS and CEC TWGs.
<p>Activity 2.2.1: Support national IPC TWG in IPC oversight and management</p> <p>Activity Description: Strengthen central-level IPC program management through the IPC TWG and the IPC team at MISAU</p>	5.4	2.2		Weekly coordination meetings held with IPC TWG to monitor implementation of facility IPC action plan progress and to coordinate HF visits to offer technical support for improvement of IPC practices at the provincial level. MTAps shared the e-Learning module with DNAM's IPC team and is working with them to review the materials.
<p>Activity 2.5.1: Support the national IPC TWG in IPC oversight and management</p> <p>Activity Description: Support IPC teams in developing detailed implementation plans for specific activities and provide technical assistance on selected IPC interventions for the supported hospitals</p>	5.4	2.5		Monitoring of action plan implementation is ongoing at the provincial level. MTAps supported DNAM's IPC team to monitor progress, identify gaps, and troubleshoot improvement barriers to ensure that action plans are readjusted at the HF level and shared with provincial authorities.
<p>Activity 3.1.1: Support development of AMS policies at the national level</p> <p>Activity Description: Undertake AWaRe classification and develop a draft provision on appropriate use of antimicrobial and regulation of prescription-only sales of key antibiotics</p>	5.4	3.1		<p>MTaPS supported the initiation of AWaRe classification with a workshop in early August. MTAps proposed a process for adoption of the WHO classification based on global sensitivity/resistance data, to finalize the country's national antibiotics list integrating AWaRe classification and to move toward validation.</p> <p>The draft provision and draft regulation were developed and submitted to ANARME for review before validation.</p>
<p>Activity 3.5.1: Support the design and implementation of AMS interventions in priority HFs</p> <p>Activity Description: In collaboration with DTH, implement a CQI approach to conduct a baseline assessment and AMS interventions at priority HFs</p>	5.4	3.5		In-person visits for technical support for the implementation of AMS interventions done in Xai-Xai and Tete hospitals. The report is under development.

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 medicines regulation in close collaboration with the MOHP and the DDA. MTaPS Nepal supports the policy, legislative, and system revision and implementation at the DDA and in the private sector. There are many interlinked challenges, and the selected implementation strategies focus on evidence-based prioritized problems and WHO best practices operationalized by multipronged interventions implemented with broad stakeholder involvement, including the private and public sectors.

CUMULATIVE PERFORMANCE TO DATE

A suite of updated and new policies, acts, regulations, norms, and standards has reached advanced stages for approval by the Government of Nepal. The progress was a result of MTaPS continued collaborative and advocacy work with the DDA; MOHP senior management; partners; representatives of the Ministry of Law, Justice, and Parliamentary Affairs; and others. After months of an intensive consultative process, the updated draft NMP and draft revision of Drug and Health Product Bill, with relevant codes, guidelines, and regulations, were finalized. The CSD, including GPP and GSDP and implementation strategies are awaiting approval by the Drug Advisory Committee. e-Learning materials for GPP and GSDP were developed for implementation in PY5. Guidelines and SOPs for the registration of medicines and HTPs were updated. All are awaiting government agency and/or parliamentary approval and implementation. These policy, legislative, and regulatory building blocks will enable the DDA to undertake new roles and responsibilities and bring the agency in line with WHO standards and best regulatory practices for assuring the safety, quality, and efficacy of medicines and medical products in the country.

MTaPS contributed directly to the DDA's progress in completing fundamental tasks needed to establish a mature and stable national regulatory agency (figure 2). This is the first measurable progress since WHO's GBT assessment in 2019.

The Pharmadex MIS module for registration of pharmacy and wholesalers—customized by MTaPS to comply with WHO/GBT recommendations—was successfully demonstrated to DDA senior management and stakeholders in August 2022. Remaining registration modules for products, health technologies, manufacturers, and importers were finalized and are ready for UAT and implementation. This work is the culmination of two years of MTaPS technical assistance to the DDA, since the agency approved the adoption of the Pharmadex system to replace their existing Drug Administration and Management System. However, the full transition from the previous system to Pharmadex will be completed in the next quarters.

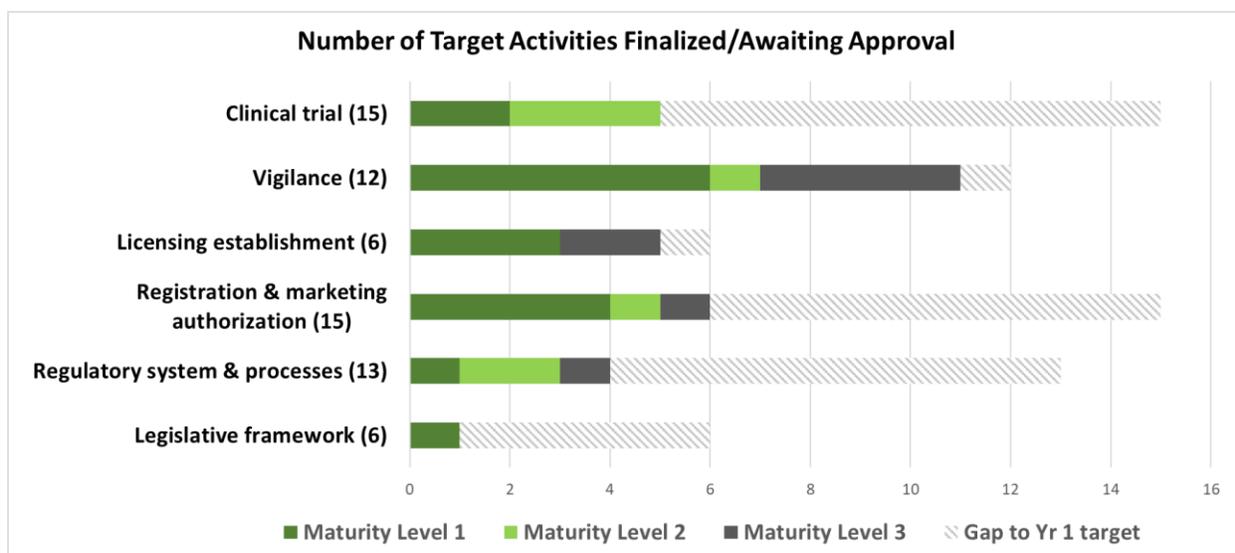


Figure 2. Progress of DDA maturity level action plan (FY2021–FY2023) by technical areas supported by MTaPS Nepal (as of June 2022)

Last year, MTaPS began assisting the DDA to establish a QMS, a significant step for the DDA to attain ISO 9001:2015 certification and essential for the DDA to increase regulatory maturity level. Three DDA divisions, i.e., Planning, Coordination, and Management; Monitoring, Evaluation, and Law Enforcement; and Drug Evaluation and Registration are ready to conduct their first internal audit. With MTaPS support, the QMS TWG finalized the DDA QMS manual, updated SOPs, and trained eight assessors and six internal DDA auditors.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS continued making progress on finalizing and fostering the approval process of several key policies and legislative and regulatory documents that strengthen the maturity level of the DDA and align DDA functions with WHO best practices. The Drug Act, the regulation on HTP, clinical trials, and PV, as well as the CSD, and guidelines on GPP and GSDP, were prepared and are awaiting approval. Also, regulating medicines prices is important for the country to reach UHC, ensure equity and affordability, and reduce out-of-pocket expenditures. As such, a concept note was prepared describing the current legal provisions, price ceilings, the current pricing of pharmaceutical products, and its revision is planned for next quarter. Approval and implementation of the mentioned documents will mean that the DDA, after many years of outdated legal provisions, tools, and mandates, will have taken critical steps toward functioning as an effective national pharmaceutical regulatory authority.

MTaPS successfully demonstrated to DDA senior management the complete Pharmadex MIS for registering and tracking the country’s nearly 30,000 pharmacies and over 4,000 pharmaceutical wholesalers and importers. In addition, MTaPS developed and piloted GPP and GSDP electronic self-inspection tools based on the GPP and GSDP guidelines. The tools are integrated in the pharmacy and wholesalers’ Pharmadex registration modules. Passing the self-inspection could be made mandatory for registration of new entities or renewal of previously registered pharmacies and wholesalers when Pharmadex is implemented.

MTaPS conducted a situational analysis of the government hospital pharmacy service to assess the implementation status of the Hospital Pharmacy Service Directive 2015. The findings were presented in a meeting of hospital pharmacists and government counterparts. MTAps was requested to assist in the revision of the directive and build the capacity of public sector hospital pharmacists next fiscal year.

A situational analysis conducted by MTAps identified the strengths and gaps of the existing PV system and, based on WHO's best PV practices and GBT assessment, the PV regulations, guidelines, risk management plans, and SOPs for PV regulation and reporting were prepared. With MTAps support, the DDA established a PV and drug information working group in their Management Division, and the DDA is now a member of the International Society of Pharmacovigilance. The new draft Drug Act strengthens PV and requires MA holders (e.g., pharmaceutical manufacturers) to set up systems to monitor, detect, and report ADEs of the products they market.

MTaPS conducted a procurement study by visiting 33 health institutions in four provinces to assess procurement practice and GSDP. Several gaps were found in local government practices. Procurement policies and guidelines were absent, and capacity was poor. The need to establish a centralized FA for local procurement was recommended. The findings were presented at a conference organized by MTAps in collaboration with the MOHP.

QUARTER 4 ACHIEVEMENTS & RESULTS

OBJECTIVE I: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Assist DDA in organizational restructuring

The report on competency mapping and the training plan were finalized and disseminated to the DDA, WHO, and PQM+ through a joint meeting on September 1, 2022. MTAps shared the reports on training of DDA staff in areas identified in the competency mapping. MTAps conducted two trainings: a five-day training on the vaccine dossier evaluation and a one-day workshop on the convergence of technical standards and guidelines on medical product registration. Implementation of the DDA training plan will be continued in the next fiscal year. Improving the knowledge and capacity of DDA staff is a key factor in increasing the maturity level of the regulatory agency.

Update the regulations, rules, and guidelines

The Director General (DG) of the DDA and MTAps met with the MOHP and the WHO to advocate for finalization of the new Drug and Health Product Act, which covers drugs and HTP, cosmetics, and nutraceuticals. The Act was discussed with the Ministry of Law, Justice, and Parliamentary Affairs representative, MOHP legal section chief, chief of the National Medicines Laboratory, DDA legal officer, and DDA senior officers, and it is awaiting government approval. The DG DDA has put the revised CSD up for approval at the next Drug Advisory Committee meeting. The DDA and MTAps started drafting the Drug and Health Product Regulation, Inspection Regulation, and the Drug and Health Product Standard Regulation. Updated regulatory documents will ensure the legal framework for the DDA to execute its key functions effectively in a sustainable manner.

Revise and update the Nepal NMP

MTaPS, in close collaboration with the National Medicine Policy Steering Committee, DDA management, NMP TWG, WHO, and other stakeholders finalized the Policy Options Analysis and

updated draft to replace the 1995 NMP. In September 2022, both documents were presented and reviewed at a high-level NMP workshop with over 70 policymakers and national stakeholders organized by the MOHP in partnership with MTaPS. After the November 2022 election, the policy is expected to be forwarded by the MOHP to the cabinet secretary for approval.



International consultant Hendrik V. Hogerzeil presenting the overall summary of the NMP workshop (Photo credit: Meeting Points Pvt. Ltd.)

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

Strengthening regulatory capacity and maturity

The updated DDA MALAP FY2021–FY2023 showed significant progress, with 58% of maturity level 1 indicators and 35% of level 2 finalized. Overall, 17% of all indicators were achieved.

Strengthen regulatory systems for medical products registration

MTaPS assisted in updating the TOR and membership for the medicines registration committee. SOPs, guidelines, and regulations for registration of medical products were developed and DDA staff have been trained in the WHO best practices in dossier review with MTAps support. The new Pharmadex product registration module will support the best practices dossier review when implemented. The former DG DDA and a DDA drug inspector completed a 10-day trip to Indonesia in August 2022 to learn about the systems and operations of the Indonesian FDA, and they agreed to bilateral collaboration in the future.

Strengthen regulatory system for medical devices registration

MTaPS and the DDA organized stakeholder meetings to discuss the current situation of HTP regulations in Nepal, international best regulation practices, and the need for updating the 2017 Health Technology Product Directive and initiating notification of HTPs in Nepal. MTAps finalized the workflows and developed the electronic registration system for notification of HTPs in Pharmadex. MTAps finalized an

annex to the DDA MALAP covering new GBT HTP indicators and activities linked to maturity levels 1 and 2.

Strengthen PV at national and provincial levels

PV regulations, guidelines, risk management plans, and SOPs for PV regulation and reporting were prepared with MTaPS support. The script for the first of three modules of the PV e-Learning course was completed. A two-day training workshop with regional PV centers, the DDA, and public health programs on PV SOPs and guidelines and ADE reporting was developed, but due to competing activities, implementation was postponed to the next quarter.

Strengthen GPP and GSDP

In collaboration with the DDA, MTaPS developed the e-Learning materials for GPP and GSDP and prepared the storyboard for the IEC materials for community awareness on appropriate use of medicines. The GPP and GSDP implementation strategy was finalized. It includes capacity building of pharmacy and wholesale owners, implementation of pre-inspection audits through a service contract with private providers, and availing manuals and guidelines. A 3-day GSDP training attended by 24 DDA staff and a 2-day workshop with 34 wholesalers and importers were conducted in September 2022 by an international consultant from the Uganda National Drug Authority and MTaPS.

Strengthen Good Hospital Pharmacy Practices (GHPP)

To address the findings of the GHPP situational analysis conducted by MTaPS, the MOHP Quality Standard and Regulation Division formed a nine-member TWG to revise the existing hospital pharmacy directives. MTaPS, in collaboration with the Curative Service Division, started developing a GHPP capacity building program for public-sector hospital pharmacists in procurement, inventory, document and stock management, dispensing and counselling, DTCs, PV, infection control, and AMR.

Assist the DDA in developing a QMS

The DDA currently has the foundations of an operational QMS. The QMS TWG approved the manual and SOP for most of the DDA functions. With MTaPS support, the DDA has appointed an internal audit team consisting of six staff who were trained in how to conduct an internal audit. The audit is planned to be implemented next quarter and will be an important step toward ISO 9001:2015 certification.

MTaPS implemented a gap analysis of Nepal's clinical trial legal framework. Guidelines for destruction of investigational medicinal products and TORs for the establishment of a clinical trial committee were drafted.

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

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

The DDA UAT for the pharmacy and wholesale registration module of Pharmadex was completed and 10 new applicants registered their pharmacies in both Pharmadex (now called DDA-MIS), and the existing system. Of the 10 applicants, 3 had no computer skills. However, all applicants were able to submit their application in both systems and fill in the self-inspection tool in the DDA-MIS. The new registration module lessens the burden on the limited number of DDA inspectors. Following this

successful pilot test, the DDA requested that all registration modules (i.e., pharmacy, wholesalers, manufacturers, medicines, and HTP) be finalized and demonstrated before the DDA evaluates the feasibility of adopting the DDA-MIS countrywide. All registration modules were finalized by the end of September and the complete registration package is ready for demonstration and feasibility evaluation next quarter. MTaPS continued the procurement and tender process for DDA computers in central and branch offices and shelves for storage of dossier files and regulatory materials which are needed for the DDA to organize their filing structure and properly transition to an electronic filing system.

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

Strengthen medicines management in government-sector health facilities

An additional 30 district-based MMSs completed their 2-week residential training and received laptops and mobile phones to carry out the SPARS pilot activities. MTaPS also trained 10 MMSs from 2 districts (Dhanusa and Siraha) in a 5-day practical training session. To date, the first batch of 30 fully trained MMSs have submitted few electronic SPARS assessment reports. The SPARS facility visits have stalled somewhat, due to leadership and staff changes at MTaPS and the CSD and pending the signature of a memorandum of understanding with the Department of Health Services. All issues should be resolved in October 2022. MTaPS continued developing SPARS management reports to track performance at the MMS, district, provincial, and national levels. At the request of the Department of Health Services, MTaPS printed and distributed 2,000 copies of the *Standard Treatment Protocol for Basic Health Services*. The CSD appointed a SPARS coordinator, and a SPARS unit to coordinate and monitor implementation of activities has been established with MTaPS support.

Improve AMR containment

MTaPS initiated an evidence-based AMR landscape mapping by evaluating AMR-related articles published in Nepali and English newspapers, national TV/media contents, and scientific platforms to document previous and ongoing AMR-related activities and actions carried out by the Government of Nepal, the MOHP, and OH partners. The mapping will provide the basis for the development of an AMR training curriculum for journalists and to develop IEC materials on AMR containment and AMS.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- Integrating GPP and GSDP self-inspection checklists into the DDA-MIS registration modules will enable users to respond to the questions and assess their own GPP and GSDP compliance prior to DDA staff involvement, which will streamline the process.
- Demonstrating the utility of the HTP registration module, a new module that does not exist in the current system, is a strategy that may increase the likelihood of the DDA adopting Pharmadex (DDA-MIS).

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Assist the DDA in organizational restructuring <ul style="list-style-type: none"> ■ Complete the draft of job descriptions for DDA new employees 	October – December 2022

<ul style="list-style-type: none"> ■ Implement competency training and Asia Bureau capacity-building training ■ Implement learning visit for DDA staff on dossier review and MD regulation 	
Activity 1.2.1: Update the regulations, rules, and guidelines <ul style="list-style-type: none"> ■ Update/replace/draft regulations, codes, and guidelines, including price regulation 	October – December 2022
Activity 1.2.2: Revise and update the Nepal NMP <ul style="list-style-type: none"> ■ Finalize NMP and advocate for approval 	October – December 2022
Activity 2.2.1: Strengthening regulatory capacity and maturity <ul style="list-style-type: none"> ■ Make regular updates to DDA maturity level action plan and take part in WHO GBT assessment 	October – December 2022
Activity 2.2.2: Strengthen regulatory systems for medical product registration <ul style="list-style-type: none"> ■ Demonstrated DDA-MIS and implement if feasible registration modules ■ Organize seminar for applicants to improve capacity in dossier preparation 	October – December 2022
Activity 2.2.3: Strengthen regulatory system for HTP registration <ul style="list-style-type: none"> ■ Develop HTP registration strategy and implement DDA-MIS HTP registration module ■ Inform and capacitate stakeholders to implement HTP notification system 	October – December 2022
Activity 2.2.4: Strengthen PV at national and provincial levels <ul style="list-style-type: none"> ■ Equip national and regional PV centers and public health programs with necessary infrastructure and information resources on PV ■ Implement information and education program for health professionals on ADE reporting 	October – December 2022
Activity 2.2.5 and 2.2.6: Strengthen GPP and GSDP <ul style="list-style-type: none"> ■ Orient and train stakeholders in GPP and GSDP guidelines and finalize GPP and GSDP manual ■ Finalize e-Learning course in GPP and GSDP and link it to pharmacist registration requirement ■ Develop community awareness strategy ■ Make contract for GPP and GSDP inspection 	October – December 2022
Activity 2.2.7: Strengthen GHPP <ul style="list-style-type: none"> ■ Capacitate hospital pharmacist, draft GHPP guidelines and update directives 	October – December 2022
Activity 2.2.8: Assist DDA in developing a QMS <ul style="list-style-type: none"> ■ Implement internal audit and address recommendations ■ Strengthen QMS software 	October – December 2022
Activity 3.1.1: Implement pharmaceutical MIS, Pharmadex for registration, inspection, importation and exportation, and PV <ul style="list-style-type: none"> ■ Demonstrate DDA-MIS and implement registration and reporting modules 	October – December 2022
Activity 5.1.1: Strengthen medicine management in government sector health facilities <ul style="list-style-type: none"> ■ Increase SPARS visits, and implement provincial coordination and planning and reporting 	October – December 2022
Activity 5.3.1: Improve AMR containment <ul style="list-style-type: none"> ■ Conduct a rapid situational analysis of the AMR landscape 	October – December 2022

Table 21. Quarter 4, FY22, Activity Progress, Nepal – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.1.1: Assist the DDA in organizational restructuring</p> <p>Activity Description: Implement selected training</p>	1.1	N/A	N/a	<p>The competency report and training plan were finalized. A five-day training on the vaccine dossier evaluation and one-day workshop on the convergence of technical standards and guidelines on medical product registration were conducted. Two DDA staff (the previous DG DDA and a drug inspector) completed a 10-day trip to Indonesia (Aug. 20–30, 2022) to learn about the systems and operations of the Indonesian Food and Drug Authority.</p>
<p>Activity 1.2.1: Update Drug Act, regulations, rules, and guidelines</p> <p>Activity Description: Finalize Drug Act, Code on Sales and Distribution, and selected and prioritized regulations and guidelines</p>	1.2	N/A	N/A	<p>Updates on the Act were managed by a core group with DDA leadership and members, and legal experts from the DDA, the MOHP, and the Ministry of Law and Parliamentary Affairs, with support from MTAps local and international legal experts. In collaboration with the Judicial Service Training Center, MTAps conducted training courses and built the legal capacity of the DDA staff. The MOHP advised that progress is likely only after the elections in November 2022.</p>
<p>Activity 1.2.2: Revise and update the NMP</p> <p>Activity Description: Finalize draft NMP</p>	1.2	N/A	N/A	<p>The finalized, updated NMP is now aligned with the revised Drug Act, the Nepal Health Policy 2015 and the Nepal National Health Strategy 2015–2022. After the elections, the NMP will be translated and forwarded to the parliament by the MOHP for approval.</p>
<p>Activity 2.2.1: Strengthen regulatory capacity and maturity</p> <p>Activity Description: Implement regular MALAP updates toward maturity level</p>	2.2	N/A	N/A	<p>The implementation of six GBT indicators of maturity levels of 1 and 2 are dependent on the approval and implementation of the revised Drug Act and PV regulations and guidelines. Regular updates of the MALAP and preparations for the WHO GBT assessment continued.</p>
<p>Activity 2.2.2: Strengthen regulatory systems for medical products</p> <p>Activity Description: Finalize strategy for product registration, update SOP, and implement revised practices</p>	2.2	N/A	N/A	<p>The existing DDA medical product registration workflows, forms, and guidelines for dossier reviews were revised in line with WHO best practices. Increasing the number of qualified assessors is critical and preliminarily addressed in the new staffing standards, but it will take time to be implemented. To improve management of dossiers and files, MTAps also initiated procurement of shelves and other essential stationary supplies for DDA. The DDA-MIS was finalized and ready for implementation in support of the WHO dossier review practices.</p>
<p>Activity 2.2.3: Strengthen regulatory system for medical device registration</p> <p>Activity Description: Organize a stakeholder meeting, develop standard specifications of selected medical devices, and finalize draft registration guidelines in line with Pharmadex</p>	2.2	N/A	N/A	<p>To kick-start the development process, MTAps analyzed the most frequently used HTPs in HF to guide prioritization of registration. MTAps also completed a process flow document for registration/notification and started developing the Pharmadex (DDA-MIS) module for registration. A notification strategy and guidelines were drafted. MTAps started working to include new MALAP indicators/activities linked to maturity level 1 and 2 for HTP regulation.</p>

<p>Activity 2.2.4: Strengthen PV at the national and provincial levels</p> <p>Activity Description: Streamlining PV reporting and finalize SOP with associated tool to increase maturity level</p>	2.2	N/A	N/A	The DDA PV unit focal person was trained, and important PV information resources were provided. MTaPS carried out orientation and harmonization meetings with regional PV centers and public health programs working on immunization, HIV/AIDS control, malaria, and TB. Training of central and regional PV center staff, and public health programs on PV SOPs and guidelines and ADE reporting will be conducted in the next quarter.
<p>Activity 2.2.5: Strengthen GPP</p> <p>Activity Description: Develop GPP e-Learning course and initiate implementation of GPP strategy, including community awareness</p>	2.2	N/A	N/A	The GPP guidelines and an electronic inspection tool were presented to stakeholders from the pharmacy professionals' organization, pharmacy business professionals' organization, consumer association, and other stakeholders related to pharmacy practices. MTaPS developed a strategy to create community awareness on quality pharmacy services. A strategy was finalized for strengthening GPP implementation through capacity building, manual development, e-Learning material, and pre-inspections, and a contract with a private sector provider is being set up.
<p>Activity 2.2.6: Strengthen GSDP</p> <p>Activity Description: Finalize GSDP guidelines, inspection tool, and e-Learning material to train wholesalers</p>	2.2	N/A	N/A	As part of building DDA capacity, MTaPS contracted with an international inspector experienced in GSDP inspection and use of electronic inspection tool like the Nepalese GSDP inspection tool to train DDA inspectors and build capacity in GSDP among stakeholders. A strategy was finalized for strengthening GSDP implementation through capacity building, manual development, e-Learning materials and pre-inspections. The strategy will be implemented through a contract with a private sector provider.
<p>Activity 2.2.7: Strengthen GHPP</p> <p>Activity Description: Update GHPP directive and guidelines and develop GHPP capacity-building strategy</p>	2.2	N/A	N/A	MTaPS developed a capacity building strategy and implementation plan to help pharmacists at public-sector hospitals to improve performance in hospital pharmacy management and patient care. The drafted technical report is under final review.
<p>Activity 2.2.8: Assist the DDA in developing a QMS</p> <p>Activity Description: Finalize QMS manual and SOP toward ISO 9001:2015 certification</p>	2.2	N/A	N/A	MTaPS selected a consultant for the internal quality auditing. The consultant trained six DDA staff from the established DDA internal audit team in September 2022. A gap analysis of Nepal's clinical trial legal framework and guidelines for the destruction of investigational medicinal products was drafted, and TORs of the clinical trial committee were developed. Support to clinical trials is part of addressing MALAP recommendations toward maturity level 2.
<p>Activity 3.1.1: Implement pharmaceutical management information system Pharmadex for registration, inspection, importation and exportation, and PV</p> <p>Activity Description: Finalize and implement Pharmadex registration module</p>	3.1	N/A	N/A	UAT for Pharmadex registration modules for pharmacy and wholesaler registration was completed. Stakeholders from pharmacies, wholesalers and HTP importers have been oriented on Pharmadex registration modules. All registration modules including pharmacy, wholesaler, product, HTP, manufacturers, and importers are ready for UAT and implementation. MTaPS also procured desktop computers, tablets, printers, and furniture needed for Pharmadex implementation at DDA central and branch offices.

<p>Activity 5.1.1: Strengthen medicine management in government-sector health facilities</p> <p>Activity Description: Implement SPARS in selected districts</p>	5.1	N/A	N/A	<p>MTaPS procured SPARS items such as IT equipment and telephones for the MMS, and bin cards, stock books, and STGs for HFs. The remaining 30 MMS were trained by Kathmandu University and 10 underwent practical training in the field. A memorandum of understanding with the DOHS was drafted and a SPARS unit at the CSD was established to manage the SPARS pilot study.</p>
<p>Activity 5.3.1: Improve AMR containment</p> <p>Activity Description: Hire a senior technical advisor for AMR, implement situation analysis, and support revision of national plan</p>	5.3	N/A	N/A	<p>MTaPS initiated an evidence-based AMR landscape mapping by evaluating AMR-related articles published in Nepali and English newspapers and national TV/media to document previous and ongoing AMR-related activities and actions implemented by the Government of Nepal, the MOHP, and OH partners. The mapping will provide the basis for the development of an AMR training curriculum for journalists and the development of IEC materials on AMR containment.</p>

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. MTaPS Nigeria is focused on supporting three result areas: effective MSC on AMR, IPC, and 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.

The MTaPS Nigeria approach includes supporting the country to improve its JEE scores in all three result areas. Our capacity strengthening approach is targeted at providing the necessary skills to AMR TWG members at the national and state levels as well as facility teams and committees. In addition, MTaPS supports the AMR TWG Secretariat to tackle AMR containment challenges in the country by reinforcing the multisectoral OH approach. 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 established facility structures.

In FY22, MTaPS Nigeria expanded the IPC and AMS programs to four additional facilities in Kebbi State while ensuring that the already established programs in the supported facilities in Enugu were consolidated and matured to address AMR-related challenges at the facility level.

CUMULATIVE PERFORMANCE TO DATE

Since PY3, MTaPS has supported the completion of eight of the 62 WHO IHR benchmark actions (13%)—three contributing to MSC/AMR, two to IPC, and three to AMS—with five others at various stages of completion. MTaPS' goal in supporting the benchmark actions is to help the country move to the next JEE level across the three result areas.

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

supported performance review of the 2017–2022 NAP-AMR was concluded in Q1 PY5, and the report will inform the development of a new NAP-AMR.

MTaPS supported the AMR TWG Secretariat to develop the national IPC strategic plan in FY22, which is a capacity level 3 benchmark action. Although the baseline JEE level 2 for IPC has not changed, MTAps' support is helping to move the country closer to a JEE score of 3, with MTAps contributing to achieving 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 health care service in the country. At the state level, MTAps, in collaboration with the NCDC, supported the development of Enugu State's IPC plan. MTAps' key achievements at the facility level include the establishment of IPC programs in seven supported private and public facilities in Enugu and Kebbi states. Key outcomes include baseline assessments conducted using the 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 in Enugu and Kebbi states were inaugurated in collaboration with the State MOH and facilities' management leaders. Through a face-to-face training approach, the capacity of the seven facility teams was built on key technical, managerial, and leadership components for effective coordination and management of the IPC program across the state, including in 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 323 (219 from Enugu, 104 from Kebbi) facility staff. MTAps provides ongoing monitoring of these programs remotely and through mentoring visits to the facilities.

Since FY21, MTAps has supported the country's AMR TWG Secretariat to implement three benchmark actions for capacity level 2 with the goal of moving the country's AMS program baseline JEE score of 2 to the next level. With MTAps' support, the country is on track to achieve 100% completion of the level 2 benchmark actions by FY23 and position itself for JEE level 3 capacity.

At the state level, AMS programs were established in Enugu State across three selected HFs and in four facilities in Kebbi State. Following the establishment of the AMS program in the supported facilities, AMS/IPC hybrid committees were established in Enugu State to ensure regular meetings and effective oversight of IPC and AMS activities in the facilities and avoid the pitfalls of multiple and ineffective committees. The functionality of the AMS and IPC teams has been enhanced by the active hybrid committee model. The AMS team at one of the seven supported facilities developed a hospital formulary to guide the procurement and prescription of essential antibiotics at the facility. However, in Kebbi State, AMS structures were just inaugurated in supported facilities. Local formularies were not in use in any of the supported facilities prior to MTAps' support. The laboratories at the facilities in Enugu State have commenced the development of hospital antibiograms to assist in streamlining antibiotic prescribing in the facility and guide empirical prescribing of antibiotics at the HCF.

A critical step in establishing an AMS program in a country is the development of an AWaRe categorization of essential antibiotics to help control the misuse of lifesaving antibiotics. Following the inauguration of the TWG on AWaRe in March 2022, data collection from sentinel sites and other laboratories in the country is ongoing.

The national OH AMS plan has been developed with MTaPS' support to the country's AMR TWG. The plan 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.

YEAR 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC ON AMR

Support the National AMR Secretariat to review the implementation of the 2017–2022 National Action Plan (NAP-AMR) including costing of revised plan

MTaPS engaged a consultant to review the performance of the 2017–2022 NAP-AMR. The review was completed, and the consultant will present the report to key stakeholders. It is expected that the report and recommendations will help guide the development of the 2023–2028 NAP-AMR.

Continue to strengthen governance, multisectoral coordination (MSC), and functionality of the AMR-TWG and its subcommittees

MTaPS supported three of the five scheduled multisectoral meetings, which strengthened coordination of the tripartite sectors and the AMR TWG. Members of the AMS subcommittee participated in the national AMS surveillance workshop on July 30, 2022, in Abuja, where their capacity for AMR surveillance activities in the human and animal health sectors was strengthened. At the AMR coordinating committee meeting, plans for the development of a new NAP-AMR were discussed and actions set in motion. MTaPS also supported capacity building for the State OH leadership team in Kebbi State on AMR governance and leadership.

RESULT AREA 2: IPC

Strengthen capacity of health care providers to implement IPC guidelines

MTaPS supported the establishment of IPC programs in six facilities in Enugu and Kebbi states. The program also assisted with the completion of the national IPC strategic plan, which is awaiting approval by the government, and completion of the Enugu State IPC plan.

Strengthening IPC core components and the functionality of IPC committees in select hospitals

IPC action plans were developed with help from MTaPS by each of the program-supported facilities following training of IPC team members. For the six new facilities in FY22, 51 (33 female, 18 male) members of the IPC teams in the supported facilities were trained.

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

Strengthen AMS in human and animal health sectors

MTaPS engaged two consultants to conduct a rapid assessment of AMS policies in animal and human health. The outcomes were applied to the development of the national AMS plan. The national AMS OH plan covering both the human and animal health sectors was completed and will serve as a reference document for AMS interventions in the country. Following MTaPS' engagement with the DFDS, the NEML committee, and the Federal Ministry of Health, approval was granted to conduct an AWARe categorization of antibiotics in Nigeria. The AWARe TWG was inaugurated, and the AWARe development process has begun. AWARe TWG data collation and analysis have reached an advanced

stage and will guide the categorization of essential antibiotics in Nigeria based on the AWaRe grouping of antibiotics.

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

AMS programs have been established in the six facilities receiving MTaPS' support, and 54 HCPs (36 female, 18 male) have been trained. During WAAW, MTaPS supported three facilities in Enugu State to create awareness on the need for rational and evidence-based prescribing of antibiotics by HCWs and rational and responsible use of antibiotics by members of the community.

Fourteen people were trained in the conduct of antimicrobial PPS across seven facilities, and all MTaPS-supported facilities carried out step-down training to extend capacity to 30 additional people. Overall, 43 (24 in Kebbi, 19 in Enugu) AMS team members participated in the PPS.

QUARTER 4 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 National Action Plan (NAP-AMR) including costing of revised plan

The review of the performance of the 2017–2022 NAP-AMR has been completed by the consultant engaged by MTaPS. The development of a new 2023–2028 NAP-AMR for the country is expected to follow the review.

Continue to strengthen governance, multisectoral coordination (MSC), and functionality of the AMR-TWG and its subcommittees

One multisectoral meeting was held this quarter. An in-person meeting of the IPC TWG subcommittee with stakeholders from the animal health, human health, and environmental sectors took place August 18, 2022. The meeting afforded subcommittee members the opportunity to understand their roles and how each sector contributes to the national agenda for IPC improvement.

RESULT AREA 2: IPC

Strengthen capacity of health care providers to implement IPC guidelines

MTaPS concluded support for IPC training and facility plan development in the four supported facilities in Kebbi on July 16, 2022, and one private (faith-based) facility in Enugu on July 21, 2022.

The program also assisted with conducting intermediate training for 32 HCPs (17 female, 15 male) who had previously attended the basic training in Kebbi State. Nine HCPs (8 female, 1 male) from one of the private facilities in Enugu completed the 10-day facility-based training.

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

Strengthen AMS in human and animal health sectors (NAP Objective 4.3)

MTaPS supported the capacity building of five members of the State OH leadership team in Kebbi State on AMR governance. The AWaRe TWG data collation and analysis have reached an advanced stage, and

the systematic review report is expected by the end of October 2022. Once completed, it will guide the categorization of essential antibiotics in Nigeria based on the AWaRe grouping of antibiotics.

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

The final round of training was completed on July 7, 2022, for 31 HCPs (16 female, 15 male) in Kebbi State with the development of facility AMS plans. Fourteen members of AMS teams from facilities in Enugu and Kebbi states (7 female, 7 male) were trained on the conduct of AMU PPS. Subsequently, antimicrobial PPS was carried out in all seven supported facilities September 13–23, 2022. Analysis of the survey data is expected to reveal ongoing AMS practices and allow for use of evidence to plan interventions and update facility work plans.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- Use of the Open Data Kit tool to support PPS in the facilities allowed for streamlining of data collection and collation at the facility to improve efficiencies and enhance data quality.
- The involvement of facility-level IPC team members in the development of the Kebbi State IPC plan improved the operability of the plan as their perspective focused more on what was practicable and not just desirable.
- IPC assessments of health facilities should be guided by experienced facilitators at baseline to ensure validity of results and enhance learning of the IPC teams for subsequent follow up assessments.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Training and inauguration of Kebbi State AMR TWG	October 2022
Monitoring of IPC and AMS plan implementation	November 2022
Adaptation of national IPC guidelines and subsequent IPC training on guidelines for HCWs at supported facilities	November 2022
Support facility development of antibiogram	November – December 2022
AWaRe categorization of antibiotics	December 2022
Engagement of consultants to support the development of the new NAP-AMR	November 2022

Table 22. Quarter 4, FY22, Activity Progress, Nigeria – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1: Review the implementation of 2017–2022 NAP-AMR including costing of plan</p> <p>Activity Description: Consultant to conduct interview sessions with stakeholders and administer appropriate tool to assess the performance of the 2017–2022 NAP-AMR and present the result with recommendations to the AMR CC</p>	5.4	1.1		This is a multi-staged activity. The first step is the review of the 2017–2022 NAP-AMR, which is almost completed with support from MTaPS. This is expected to pave the way for the development of the new 2023–2028 NAP-AMR by the tripartite sectors of the AMR TWG Secretariat and other bilateral and multilateral agencies.
<p>Activity 2: Support AMR TWG subcommittee meetings</p> <p>Activity Description: Participation of members of the subcommittee in an in-person meeting to present a progress report on activities in relation to the NAP guided by the committee’s annual plan</p>	5.4	1.2		The first in-person meeting of the IPC subcommittee took place in August 2022 with participation from the animal, human, and environmental sectors. Activities of the sub-pillars were presented, national priority activities were discussed, and delivery timelines were set. Technical support and funding sources for planned IPC activities were also discussed.
<p>Activity 3: Development of AWaRe categorization of antibiotics</p> <p>Activity Description: The AWaRe TWG is expected to lead the categorization of essential antibiotics in Nigeria into the AWaRe categories based on local evidence of sensitivity and resistance profiles of the antibiotics to disease conditions of public health importance</p>	5.4	3.1		The process of reviewing grey literature and local data on the sensitivity of antibiotics to priority public health diseases is ongoing by the consultant. The DFDS, Federal Ministry of Health, and NCDC are providing access to AMR data at government laboratories across the country to aid the development of the AWaRe categorization of antibiotics. Following the review, a data validation workshop will be held by the AWaRe TWG.
<p>Activity 4: WHO Point Prevalence Survey at MTaPS facilities</p> <p>Activity Description: This includes a two-day training course for focal persons from the AMS teams in the supported facilities, followed by a five-day survey at the selected facilities with technical support from the facility AMS teams and experts from the national AMR TWG</p>	5.4	3.5		A two-day training of AMS team members from seven supported facilities took place the last week of July 2022 in preparation for the PPS at the facilities. More than 30 HCPs participated in the PPS survey in the seven facilities in Enugu and Kebbi states. The Open Data Kit was employed to capture data from all wards in the facilities. The result is expected in five weeks following a comprehensive analysis of the data pulled from the survey.
<p>Activity 5: Supportive supervision and monitoring of IPC and AMS programs at all supported facilities</p> <p>Activity Description: Quarterly in-person visits 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 facilities</p>	5.4	2.5 3.5		This activity has yet to take place due to the delay in the completion of training activities at six supported facilities (excluding ESUTH). All six facilities recently completed their IPC and AMS training sessions, and work plan implementation has commenced. The supervision will be rescheduled to December 2022 to ensure that IPC and AMS activities/interventions have reached some level of implementation before monitoring is undertaken.

<p>Activity 6: IPC training session for one faith-based facility in Enugu and concluding IPC and AMS training sessions for Kebbi State facility teams</p> <p>Activity Description: Support capacity strengthening of IPC and AMS teams through training sessions</p>	5.4	2.5, 3.5	AMS and IPC training sessions have been completed as scheduled in Enugu and Kebbi states. IPC and AMS programs have been established in all supported facilities. The facility teams have been inaugurated in all four facilities in Kebbi and one faith-based facility in Enugu. All supported facilities have carried out at least one activity in their facility plan for both IPC and AMS.
<p>Activity 7: Repeat IPCAF and IPCAT2 assessments</p> <p>Activity Description: WHO assessment of IPC core components at the facility, state, and national levels using the approved tools (IPCAF and IPCAT2)</p>	5.4	2.1	The baseline IPCAF and IPCAT2 assessments for Kebbi facilities and the state, respectively, were concluded in September 2022. Although the reassessment was planned for August/September 2022 in the FY22 work plan, the delay in carrying out training for the teams has made the August timeline unrealistic. A minimum of six months post baseline assessment would be required before a repeat assessment would be meaningful.

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, 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 and patient safety issues in the regular provision of TB, FP, and HIV services to increase access, as follows:

- Supporting DOH's central offices in redefining its PSCM-related roles
- Professionalizing the PSCM and PV workforces
- Supporting DOH in setting up critical information systems
- Enabling DOH and LGUs to optimize PSCM resources
- 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 in the Philippines and supported DOH in developing a three-year strategy with key interventions. MTaPS analyzed the draft UHCIRRs and suggested the addition of relevant articles to ensure legal support for supply chain reforms at the central and LGU levels into the IRRs. MTaPS supported DOH in designing and developing a PSCM road map for the central, regional, and local government levels in support of UHC law implementation. MTaPS has been assisting DOH in developing a PSCM reform plan and institutionalizing a fully functional PSCM governance mechanism with clear delineation of roles among different units of the DOH central office, CHDs, and LGUs to strengthen the PSCM systems for UHC implementation.

Workforce development: MTaPS supported DOH in assessing PSCM and PV workforce needs and developed a PSCM and PV workforce development plan, which has been used by DOH in the process of hiring new staff, developing and offering e-learning modules to train the workforce, and developing the concept of LTAPs to support implementation of PSCM systems.

Information system: MTaPS supported DOH in identifying technical requirements for an end-to-end eLMIS and developing a road map for its implementation across all levels of supply chain systems. 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 the VigiFlow system, as requested by DOH for setting up active drug safety monitoring of TB medicines. MTaPS has been supporting DOH and FDA in rolling out PViMS and monitoring its use at targeted TB facilities to ensure patient safety.

Financing and resource management: MTaPS supported DOH in developing guidelines for FAs to ensure that quality health commodities are procured through efficient procurement operations. Although the FA guideline was not accepted by the Government Procurement Board, a policy and legal provisions assessment is currently underway to address policy gaps. MTaPS is also working with USAID's ReachHealth project, DOH, and LGUs to test innovative use of a digital platform to facilitate exchange of information, 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 supported DOH and POPCOM in updating and finalizing a warehouse operation manual and mentored POPCOM in rolling out the warehouse checklist tool. MTaPS also supported the long-term estimation of quantity and budget requirements for TB and FP commodities during the 2019-2022 period. Additionally, MTaPS has been working with FDA to update the national PV policy, develop guidelines on PV methods, and optimize product registration. MTaPS took part in joint activities with other USAID IPs and supported the Bangsamoro Autonomous Region in Muslim Mindanao MOH to develop a PSCM action plan for the autonomous region.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS supported DOH in incorporating needed PSCM reforms to address the foundational elements of the PSCM roadmap for UHC into the DOH's Devolution Transition Plan. To help professionalize the PSCM and PV workforce, MTaPS supported DOH in updating the PSCM workforce development plan. Also, several PSCM-related courses were converted to asynchronous eLearning for uploading to the DOH Academy to reach a wider audience. The PSCM- and PV-related courses were initially delivered as webinars with around 10,000 people trained cumulatively in FY22. MTaPS also conducted readiness assessment of selected USAID-supported UHC implementation sites to implement LTAPS.

The commercial off-the-shelf Entuition Vesta was selected as the eLMIS solution. It will facilitate streamlining of all logistics information on health commodities and vaccines in a single platform and improve efficiency. The eLMIS conforms with the warehouse operations manual, which was developed with MTaPS support to standardize warehouse operations. MTaPS supported DOH in configuring the off-the-shelf eLMIS in line with Philippines' PSCM processes, organizing the UAT, developing the phased eLMIS roll-out plan, deploying the eLMIS system, and building master trainers that trained eLMIS end users in support of the roll out. MTaPS provided bridging support in the webhosting of the eLMIS and engaged with other IPs to advocate their support to DOH on eLMIS implementation.

MTaPS built the capacity of DOH to improve the analysis of stock data, making stock-out information at SDPs available to key decision makers at DOH. MTAps engaged a digital provider to test an innovative use of a digital platform in support of UHC implementation in seven identified LGUs. MTAps also oriented DOH and selected CHDs on quantification, in line with the devolution.

MTaPS introduced global PV best practices to FDA, which used this knowledge to revise the AO on PV and develop PV guidelines for public health programs. MTAps partnered with FDA to deliver a PV overview webinar to health workers to help build a culture of PV. MTAps supported DOH in rolling out PVIMS, an active surveillance tool for TB, to PMDT facilities in all 17 regions and improving the quality of AE reports prior to causality assessment. MTAps supported establishing the interoperability between PVIMS with FDA's VigiFlow. MTAps collaborated with DOH in conducting TOT on IPC and HCWM manuals and checklists to cascade the standards across all regions and their respective catchment areas. MTAps also partnered with DOH to build the capacity of policy planners by delivering a webinar on the role of sex and gender in PSCM and PV.

QUARTER 4 ACHIEVEMENTS & RESULTS

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

PV governance: MTAps conducted an orientation workshop attended by 31 (6 male, 25 female) members of FDA leadership and officers from the national and regional levels to review PV best practices and to collaboratively update the national policy on PV. This updated national policy outlines the roles and responsibilities at the central, regional, and local levels in monitoring the safety of medicines for all patients. Incorporated in the national policy are the updated TOR of the national PV Advisory Committee. Moreover, as novel treatment regimens are emerging, MTAps and FDA developed PV method guidelines to help public health programs determine which PV method is applicable to implement per commodity. PV is an integral part of the health care system and essential for improving patient care and overall public health.

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

PSCM and PV Health Workforce Development Plan (HWDP): MTAps has incorporated the feedback from DOH Health Human Resource Development Bureau (HHRDB) into the HWDP, completing the revision on the technical contents of the plan. The revised HWDP provides technical guidance in ensuring that a competent workforce is available and adequate to contribute to successful implementation of the PSCM UHC agenda and the Devolution and Transition Plan 2022-2024, in which PSCM will be further devolved to the LGUs in the next three years.

PSCM webinars: As a response to the request of LGUs for PSCM training and as part of continuous support to provide free access to quality training in supply chain, MTAps delivered two webinars this quarter. A total of 543 (117 male, 296 female, 130 unknown) participants attended the PSCM overview webinar, and 556 (171 male, 296 female, 89 unknown) participants attended the warehouse management webinar. Building the capacity of LGUs is critical as increased PSCM responsibilities are being transitioned to LGUs during implementation of the UHC and the devolution transition. Moreover, MTAps has completed converting these two training courses into a self-paced eLearning module that will be uploaded to the DOH Academy.

LTAPS Scheme: MTaPS has assessed the readiness of some LGUs and has engaged key stakeholders from DOH, Department of the Interior and Local Government, LGUs, USAID IPs and selected private groups to improve the LTAPS implementation approach. The strategy of engaging local institutions in support of LGUs on PSCM was also identified. MTaPS completed the LTAPS toolkit, which contains all the necessary course materials intended for LTAPS participants.

Product registration optimization: MTaPS Philippines and Asia Bureau conducted a competency mapping exercise attended by 31 (7 male, 24 female) FDA personnel, including the director general, center directors, division chiefs, and mid-level officers. The activity aims to help FDA identify their strengths and capacity-building needs to become a more mature regulatory authority. In addition, MTaPS provided essential technical advice to FDA on how to improve the implementing rules and regulation of the collaborative registration procedure and best practices on implementing facilitated registration pathways to optimize the product registration system. Adopting the facilitated review pathways will not only improve the regulatory processes by reducing the workload allocated for administrative and technical evaluation but will also ensure timely access to medicines for the public.

PV eLearning: MTaPS and FDA have finalized the technical contents of the PV eLearning modules that will be uploaded to the DOH eLearning Academy. These modules will support DOH and FDA in training the PV workforce by enabling them to achieve learning objectives at their own pace and contribute to advocacy for drug safety reporting. Continued investment in training and development of the health workforce is essential to institutionalizing well-functioning and resilient PV systems.

Collaboration with other USAID IPs: MTaPS provided orientation to 23 staff (10 male, 13 female) from the Navotas LGU on PSCM overview and inventory management and good storage practices, in collaboration with USAID TB platforms. This orientation is critical in preparation for the further devolution of PSCM functions to the LGUs. The inventory management and good storage practices module is planned to be delivered as a webinar in the next quarter for a wider audience. MTaPS will continue collaborating and leveraging resources with other USAID IPs.

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

eLMIS: MTaPS has supported DOH in delivering several training sessions and consultative workshops on eLMIS. MTaPS supported DOH in orienting the CHD National Capital Region on its eLMIS advocacies with 75 (24 male, 51 female) participants; the team also facilitated brainstorming with other CHDs on eLMIS roll-out with 51 (21 male, 30 female) participants. In addition, as part of the roll-out preparation, MTaPS and Bileeta (contracted vendor) jointly conducted initial training for eight (three male, five female) participants from SCMS and KMITS on eLMIS service support or help desk activities during the roll-out/go-live period. The eLMIS minimum viable product has been achieved this quarter, and the system has been deployed to the production environment. Essential master data such as stock keeping units of 987 products and 34,151 facilities with different organizational hierarchy have been imported and installed into the eLMIS application. The configured eLMIS is now accessible to users. Also, MTaPS supported DOH in finalizing and disseminating the eLMIS deployment checklist and inventory/opening balance-capturing template, which the implementing sites are required to accomplish in preparation for the countywide roll-out. Furthermore, MTaPS has supported DOH in the initial roll-out of the eLMIS real-time transactional system to six DOH central warehouses (two owned, four

rented). The training of eLMIS users, finalization of master data items, and completion of deployment checklists facilitates the successful launch of the eLMIS roll-out. The scale-up of eLMIS to more warehouses and facilities will continue in the following quarters.

Quarterly data analysis: MTaPS has been working with DOH PD in processing and analyzing the quarterly inventory data of priority health commodities, including FP, TB, and HIV/AIDS commodities. The PD has since been independent in processing the stock data and oriented selected regions on stock data analysis as a result of the capacity-building activities conducted and tools provided by MTaPS to PD last quarter. This quarter, MTaPS supported PD in collecting warehouse and stock data from DOH units and finalizing the official 2022 Q3 stock data analysis report of selected warehouses and service delivery reports. Through the analysis conducted and the decisions made, there has been an improvement in the understanding of different DOH bureaus concerning stock-out rates among seven priority public health programs in the country.

PViMS implementation: The PViMS training is now incorporated as part of the training for newly hired PMDT staff conducted by Lung Center of the Philippines (LCP), the training arm of the DOH DPCB on PMDT. This quarter, the DOH PD, LCP, and other IPs assessed the causality of the AEs reported through PViMS in the first six months of 2022, with MTaPS support. Of 50 reports, 30 were assessed and 20 will be assessed by PD. The implementation of PViMS has helped the country implement key essential aDSM activities.

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

Strategic procurement: MTaPS is working with the DOH PS, DPCB, and PD to analyze the procurement policy and legal environment to address the issue raised by the Government Procurement Policy Board on the Framework Agreement and Pooled Procurement guidelines for the procurement of drugs and medical devices. Once the policy and legal provisions are analyzed and gaps are identified, a revised guideline in the form of an AO will be developed to guide DOH and LGUs in pooling demands and entering into a single FA contract to maximize economies of scale and achieve efficient procurement.

Provider Integration and Engagement System (PIES): MTaPS has completed contracting a digital provider to support the PIES implementation. The provider has an existing digital solution that will be provided to the LGUs to connect and streamline information from different health providers or public or private facilities that are part of their HCP network. This activity aims to demonstrate how effective provider engagement, powered through integrated digital solutions, and private sector partnerships can increase access to essential health commodities and health services in seven targeted LGUs in the provinces of Batangas and Laguna. Furthermore, this initiative will enable the participating LGUs not only to have access to essential tools and information in managing a wide array of providers but also build local competencies necessary to translate information into actionable management and policy decisions.

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

Quantification: MTaPS conducted a training workshop for 18 (8 male, 10 female) participants from DOH and CHD on quantification (forecasting and supply planning) of health commodities. In this

workshop, participants learned that quantification will be most effective when performed in collaboration with different stakeholders. The output of the workshop will be used to develop the quantification guidelines of health commodities for DOH. The training materials and concepts covered in the training are planned to be delivered as a webinar next quarter for a wider audience. Standardized quantification processes and guidelines and availability of quality training materials are critical to institutionalize quantification at both the central and regional levels.

IPC and HCWM: MTaPS supported DOH in finalizing TOT materials on IPC and HCWM standard guidelines and practices in HFs. Using these TOT materials, MTaPS and DOH also trained 41 (16 male, 25 female) trainers that will cascade the new standards on IPC and HCWM. The trained personnel at the national and regional levels will ensure compliance with HCWM and IPC standards.

Gender and development (GAD) eLearning modules: MTaPS and DOH have finalized the contents of eLearning training modules on sex and gender in PSS that will be uploaded to the DOH eLearning Academy. These modules will help build the capacity of the government on advancing outcomes related to gender equity in PSCM and PV.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

One-USAID approach: The USAID mission encouraged collaboration among USAID IPs and LGUs in project implementation and has been organizing regular coordination meetings to discuss activities. As MTaPS has mostly worked at the national level, utilizing the One-USAID approach helped accelerate the introduction of MTaPS activities at the local level and engagement of local partners.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
eLMIS roll out activities and launching ceremony	October – November 2022
FDA competency mapping exercise results dissemination	October 2022
LTAPS readiness assessment visits	October 2022
eLMIS service desk training	November 2022
Strategic procurement consultative meeting	November 2022
CYP July 2021 to June 2022 results dissemination and consultation activity	November 2022
LTAPS PSCM STEP 2.0 online training	November – December 2022

Table 23. Quarter 4, 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 road map as part of implementing UHC law	1.2		N/A	The DOH DPCB has taken the lead in finalizing the 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 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 audience and sustainability. Two planned courses, namely Quantification Overview and Inventory Management and Good Storage Practices, were delivered to DOH and selected LGUs.
Activity 1.2.2: Capacitate a pool of local technical assistance providers to support institutional capacity building of LGUs for PSCM functions	2.2		N/A	Design of the LTAPS scheme and development of the toolkit were completed. Key stakeholders were engaged, and the readiness of selected LGUs to implement LTAPS was also completed.
Activity 1.3.1: Support DOH in implementing the road map for an end-to-end eLMIS	3.1		N/A	MTaPS provided technical guidance to DOH and Bileeta to produce the minimum viable product of eLMIS ready for implementation. To address the funding gap of DOH in the implementation, MTaPS initially covered the hosting environment cost for phase 1 of implementation and is currently working with DOH and Philippine Business for Social Progress in securing the continuation of web hosting until June 2023 prior to DOH taking over this task. MTaPS is also working with DOH and other IPs to apply the eLMIS site readiness assessment tool for warehouses and HFs at the regional level. MTaPS has been supporting DOH to deploy the eLMIS.
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 workflows and processes	3.2		N/A	Practice of regular data collection, analysis, and presentation was established. DOH-PD has been cascading the data analysis orientations and tool to the CHDs.
Activity 1.4.1: Support DOH and LGUs to institutionalize practices related to procurements through FAs and pooled procurement mechanism for FP and TB commodities	4.3		N/A	MTaPS has hired a legal consultant to support this strategic procurement activity. Along with the legal consultant, MTaPS discussed with DOH offices how to further refine the implementation approach and next steps on this activity.
Activity 1.4.2: Conduct implementation research on using a digital platform to integrate public and private providers into a local health care providers' 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 (MyCure) was selected to start the implementation research with USAID's ReachHealth. Contracting of the selected vendors is underway.

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	Capacity building on quantification was completed. Drafting the guidelines on quantification is underway.
Activity 1.5.2: Support the Commission on Population in implementing segmented subnational supply chain management of FP commodities	5.1		N/A	POPCOM conducted warehouse inspections in their five regional hubs by using the Warehouse Inspection Tool included in the Warehouse Operations Manual developed with support from MTaPS. MTaPS participated in one of the inspection visits to further provide practical technical guidance in using the tool. MTaPS confirmed with POPCOM that no additional SOP on procurement is needed.
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 FDA on prioritizing revision of the AO for national PV (AO 2011-0009). MTaPS and FDA reviewed the national policy on PV collaboratively and identified changes needed. MTaPS will further improve the draft prior to sharing with FDA and incorporate the guidelines on applicable PV methods to use 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 the product registration process and by targeted support	5.2		N/A	To systematically respond to FDA's requests to build their capacity in implementing facilitated registration pathways, MTaPS conducted a competency mapping exercise with FDA. MTaPS reviewed and provided technical advice on the IRRs of the collaborative registration procedure and best practices on its implementation.
Activity 2.3.1: Support HFs on improved practices on IPC and HCWM related to climate risk mitigation	5.3		N/A	MTaPS worked with the Health Facilities Development Bureau to develop TOT materials for IPC and HCWM. MTaPS organized the 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 has 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 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 CHD officials on gender in PSS. Development of an e-learning course on gender in PSS was completed and delivered through a webinar.

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

PrEP and TLD are already included in the Philippine National Formulary as of January 2022 and September 2021, respectively. MTaPS provided technical guidance to key stakeholders from the public and private sectors to ensure the successful completion of HTA requirements of TLD and PrEP. MTaPS coordinated with the HTA Council to assess related literature that discusses the use and safety profile of PrEP and TLD. Information on use and the safety profile of commodities are critical requirements the council needs to determine whether to include commodities in the Philippine National Formulary (PNF).

MTaPS provided technical assistance to DOH to complete the USAID donation of PrEP to the Government of the Philippines. MTaPS facilitated preparation of documents needed by the Philippines Bureau of Customs and supported coordination of necessary FDA clearance for the arrival of ARVs for PrEP and viral load cartridges donated by USAID in the country. MTaPS supported DPCB, Epidemiology Bureau, and other stakeholders to complete the three-year (2022-2025) quantification of adult first-line ARVs, USAID-donated PrEP, HIV test kits, and viral load cartridges. The results of the quantification activity will guide immediate and future solicitation and allocation of funds and procurement. In addition, MTaPS used the results of the quantification exercise to develop the PSCM support plan for TLD transition.

MTaPS has engaged HIV/AIDS care stakeholders in eLMIS activities, such as end-users training and roll-out planning. MTaPS mapped the flow of HIV commodities from the DOH Central Office to CHDs to LGUs and finally to HFs. MTaPS also mapped the differentiated service delivery (DSD) focused on MMD practices in selected HIV care sites with an emphasis on supply chain analysis.

MTaPS and FDA delivered a webinar on PV for HIV/AIDS care facilities in three USAID-supported regions (National Capital Region, 3, and 4a). MTaPS supported DOH and FDA in orienting community-based organizations (CBOs) on PV reporting using the FDA's suspected adverse reaction form. MTaPS supported DOH in developing the IPC checklist tool applicable to HFs, such as HIV/AIDS outpatient care facilities. Using this IPC checklist tool, MTaPS completed the assessments of IPC practices in 30 HIV/AIDS outpatient care facilities of CBOs and social hygiene clinics. MTaPS also assessed the current practices of these 30 HIV facilities on PV recording and reporting. MTaPS presented the IPC and PV assessment results to key stakeholders at the national and regional levels.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS facilitated the inclusion of TLD into the PNF which allowed DOH to procure the commodity using government funds. MTaPS supported the three-year quantification of life-saving commodities for

people living with HIV (PLHIV), which includes first-line ARVs, viral load cartridges, HIV test kits, and PrEP. MTaPS facilitated the donation of PrEP and TLD to the country from USAID, which prevented stock-outs of these commodities in several PEPFAR sites. MTaPS shared with DOH the recommended procurement modality for viral load cartridges, a commodity with a single supplier, based on the results of the market analysis and procurement law analysis. MTaPS also incorporated the requirements of HIV logistics management into the eLMIS by actively engaging key HIV stakeholders in eLMIS activities.

MTaPS invited health workers providing services to PLHIV to MTaPS' organized webinars on PSCM, IPC, and PV. Health workers can use knowledge from these webinars to implement best practices in their facilities. MTaPS also visited PEPFAR sites to sensitize staff on PV reporting and distribute IEC materials in support of FDA activities.

QUARTER 4 ACHIEVEMENTS & RESULTS

STRATEGIC OBJECTIVE I: 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

Support DOH in sustainable roll-out of PrEP and aggressive implementation of the TLD transition plan

MTaPS is engaging stakeholders relevant to the guidelines on TLD transition for their assistance with PSCM aspects of transitioning TLE to TLD. With the release of AO 2022-0024, where TLD is currently the preferred first-line treatment for HIV/AIDS in the Philippines, it is important that availability of these commodities is uninterrupted. Thus, MTaPS assisted in the three-year (2022-2025) quantification activity where the quantity and cost for procurement were identified. In addition, MTaPS conducted a visit to 21 PEPFAR facilities to understand the flow of commodities. MTaPS used the results of the three-year quantification exercise and site visits to develop the PSCM support plan and related considerations for TLD transition to ensure no supply gaps for this life-saving commodity. During the quantification exercise, MTaPS discussed with key stakeholders how to enhance collection and use of consumption and patient regimen data to support the effective transitioning of clients to TLD.

Support institutional practice of data driven quantification and procurement planning

MTaPS completed the three-year (2022-2025) quantification of adult first-line ARVs, PrEP, and viral load cartridges with quantity required for procurement and estimated costs. To accomplish this, MTaPS provided support for data collection and validation of assumptions used to produce the quantification results. The three-year quantification for HIV test kits is underway. These estimates will give DOH information to make an evidence-based decision for procurement planning and budget gap analysis, given that quantification is one of the major determinants of availability of health commodities.

Support DOH in using appropriate procurement mechanisms for addressing procurement-related bottlenecks for HIV/AIDS commodities

MTaPS facilitates the regular entry of PrEP and viral load cartridges donated by USAID in the country. The donation to the Government of the Philippines was completed with technical assistance from MTaPS (i.e., process coordination and preparation of documents required by FDA and customs

clearance). MTaPS shared with DOH DPCB the results of the market analysis of procuring viral load cartridges from local and international suppliers. This analysis provides DOH with an estimated figure for the price difference between local (including freight and logistics) and international suppliers. Based on the findings, the recommendation to use international procurement was coordinated with DOH to potentially achieve economies of scale.

Support DOH in strengthening the distribution and inventory management system for HIV/AIDS commodities

MTaPS mapped the flow of HIV commodities from the national office to clients. To accomplish this, MTaPS engaged stakeholders from DOH, CHDs, and 21 HIV outpatient care facilities to respond to a PSCM practices survey questionnaire. Mapping the flow of commodities will help understand the current practices from the DOH Central Office down to the SDPs and provide sound recommendations to strengthen the distribution and inventory management system.

STRATEGIC OBJECTIVE 2: STRENGTHEN PATIENT-CENTERED PHARMACEUTICAL SERVICES FOR HIV/AIDS

Support DOH in developing and implementing a PSCM support plan for MMD and DSD

MTaPS aligned with other USAID IPs regarding an approach to DSD and MMD that focused on supply chain management. MTaPS mapped the DSD and MMD practices in four selected HIV care sites, with an emphasis on supply chain analysis. Results of the mapping will be used to develop the supply chain analysis of the current practices of DSD implementation and identify recommended actions to improve the PSCM for DSD.

Support DOH in the aDSM of TLD and PrEP through the implementation of the PV monitoring system

MTaPS completed the mentoring of 30 HIV outpatient care facilities on PV reporting in preparation for implementing targeted spontaneous reporting. MTaPS also supported FDA in disseminating IEC materials to improve the behavior of HFs on PV reporting. Most of the health workers mentored had no prior knowledge of PV or PV reporting. MTaPS and FDA drafted the SOP on targeted spontaneous reporting for TLD. Next steps are to revise the comments from FDA and present it to DPCB.

Support HIV facilities in strengthening practices for IPC

MTaPS completed the assessment of IPC practices in 30 HIV outpatient care facilities. Based on the findings, MTaPS will recommend an action plan to improve IPC practices at all visited sites. MTaPS will organize a results dissemination activity to inform DOH, CHDs, and CBOs on the status of IPC practices and areas of opportunities to strengthen IPC. Strengthening IPC practices in HIV outpatient care facilities will reduce the risk of infection among HCWs and PLHIVs visiting PEPFAR SDPs.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

Positive benefits of early planning and collaboration with IPs: The early involvement of all relevant partners in planning technical activities with the same HFs was critical to avoiding duplication and ensuring harmonization of those activities. Planning and scheduling of simultaneous activities becomes efficient as well.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Results dissemination of IPC, PV, PSCM, and DSD situational analysis at PEPFAR sites	October 2022
PSCM and inventory management training for HIV focal person in National Capital Region	November 2022

Table 24. Quarter 4, 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	PrEP and TLD are included in the PNF as of January 2022 and September 2021, respectively.
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. MTAps has engaged DOH, CHDs, and selected HFs to gather information in line with developing the PSCM support plan for TLD transition.
Activity 1.3: Support institutional practice of data driven quantification and procurement planning	5.1	N/A	N/A	MTaPS supported DOH in conducting a comprehensive quantification exercise of first line ARVs, test kits, and viral load cartridges. Finalization of the quantification of HIV test kits is still underway.
Activity 1.4: Support DOH in using appropriate procurement mechanisms for addressing procurement bottlenecks for HIV/AIDS commodities	5.1	N/A	N/A	MTaPS shared the developed technical advisory document on viral load cartridges with DOH. MTAps has been supporting USAID in enabling the arrival of the donated PrEP and TLD commodities to the government. Prior to distribution, all DOH-procured commodities, including donations, must be tested by FDA for quality. Currently, FDA does not have the capacity to test dolutegravir, which is part of the TLD regimen. Thus, MTAps reached out to a third-party laboratory accredited by FDA to perform the testing instead. However, none of the FDA accredited laboratories has the capacity to perform the required quality test. Given this constraint, FDA, DPCB, and SCMS agreed to waive the test and distribute the TLD to CHDs.
Activity 1.5: Support DOH in strengthening the distribution and inventory management system for HIV/AIDS commodities	3.2	N/A	N/A	MTaPS mapped the flow of HIV commodities from the national office to the last mile. To accomplish this, MTAps engaged stakeholders from DOH, CHDs, and 21 HIV outpatient care facilities.
Activity 2.1: Support DOH in developing and implementing a PSCM support plan for MMD and DSD	5.2	N/A	N/A	MTaPS met with other IPs involved in implementing DSD for PLHIVs to align on the status of existing DSD initiatives. MTAps also visited PEPFAR sites providing DSD services to understand PSCM practices at these sites. Findings from the visit will be used to identify areas to improve regarding PSCM practices in selected PEPFAR sites implementing DSD services.
Activity 2.2: Support DOH in aDSM of TLD and PrEP by implementing the PV monitoring system	5.3	N/A	N/A	MTaPS, DOH, and FDA agreed that implementing active PV is beyond their current resources and capacity. MTAps supported DOH and FDA in mentoring 30 HIV outpatient care sites on PV reporting and disseminated FDA's IEC materials on PV reporting to selected HIV outpatient care sites.

Activity 2.3: Support HIV facilities in strengthening practices for IPC	5.3	N/A	N/A	MTaPS supported selected CBOs in developing action plans to improve IPC practices in their HFs. MTaPS worked with DOH and CHDs to further build the capacity of 30 HIV outpatient care facilities to improve their IPC practices as well.
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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 the Rwanda FDA, MTaPS focuses its technical assistance on both the public and private pharmaceutical sectors through support to improve regulatory systems at the 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 carefully address key gaps identified in the November 2018 WHO GBT assessment and the subsequent 2021 WHO-assisted self-benchmarking assessment. Additionally, MTaPS is supporting the Authority's institutional capacity building to address areas of weakness and gaps documented in its institutional development plan to facilitate the FDA to achieve WHO GBT ML 3. MTaPS' support is also 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 electronic regulatory IMS. MTaPS supports MOH in strengthening DTCs at HFs and engaging with them to monitor HF performance in pharmaceutical management, including for MNCH medicines.

CUMULATIVE PERFORMANCE TO DATE

Over the past four years, MTaPS has continued to provide PSS support to MOH and its institutions, including Rwanda FDA and RBC and its MCCH division.

During PYs 2 to 4, MTaPS supported Rwanda FDA in developing a four-year Strategic Plan (2021–2024) that was approved in PY3 when a five-year business plan and financial sustainability strategy (2021–2026) were also developed. MTaPS supported the development of four regulations and other pharmaceutical-sector regulatory documents (e.g., guidelines, manuals, SOPs). As part of the QMS implementation at the Rwanda FDA based on ISO 9001:2015 requirements, in May 2021, the Authority's board approved a quality manual and corresponding SOPs be developed with technical support by MTaPS. In addition, MTaPS supported an internal audit to determine the level of conformance by Rwanda FDA to QMS requirements, which was conducted in June 2021. In PY4 Q2, the first medicine dossier assessment retreat was conducted to reduce the backlog of pending dossier applications for Rwanda FDA. MTaPS participated in the Authority's self-benchmarking assessment in September 2021 of progress and remaining gaps on the journey toward ML 3. MTaPS has contributed to strengthening five pharmaceutical regulatory enforcement mechanisms—the national regulatory system, vigilance, product registration and MA, licensing establishments, and regulatory inspection.

In the management of information systems, MTaPS supported Rwanda FDA in adapting the PViMS for spontaneous reporting of AEs, including Ebola and COVID-19 vaccine AEFIs and for active safety monitoring of DTG-based ART regimens. Through the spontaneous reporting system, from June 2021 to September 2022, Rwanda FDA received 1,268 AEFI reports, of which 317 were serious AEs reported for further investigation and submitted to the WHO Uppsala Monitoring Centre. The use of PViMS ensures that medicine safety monitoring reports are quickly received and analyzed by the Authority, allowing feedback to clients, patients, and health professionals in a timely manner. MTaPS provided technical assistance to replace the former electronic regulatory IMS with the new IRIMS to fully automate Rwanda FDA's regulatory functions.

To address the human resources capacity gap, MTaPS supported training in pharmaceutical management of 846 Rwanda FDA staff and other HCWs in MER, good manufacturing practices, good review practices, good reliance practices, PV, and QMS, among other topics. As part of long-term sustainability of capacity building, MTaPS provided technical support to develop online e-Learning courses in MER and PV, which are hosted on the Rwanda FDA server. A total of 27 (19 males, 8 females) trainees are undertaking the online PV course, and 114 (85 males, 29 females) Rwanda FDA staff enrolled in the online MER course. In June 2021, during the annual NPC conference, MTaPS supported MOH and Rwanda FDA in disseminating information on the pharmaceutical service accreditation standards and medicine safety to 440 participants (295 male, 145 female).

MTaPS provided technical support to MOH to categorize antibiotics as per WHO recommendations according to AWARe and to include them in the NEML to help prescribers use antibiotics more effectively for AMR containment.

In the MNCH area, 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 of the respiratory ecosystem was conducted. MTaPS is supporting the recrafting of the national oxygen availability and management roadmap and developed a draft proposed TOR for a proposed national oxygen advisory steering committee, both under review by MOH. 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 in Rwanda to guide HCWs in health centers and hospitals.

To strengthen PV, MTaPS supported the development of a costed multi-year national PV plan to guide the implementation of medical safety monitoring activities in PY4. Nineteen participants from the National Pharmacovigilance Advisory Committee (NPAC) and Rwanda FDA were trained on PV. MTaPS is working with MOH, RBC, and Rwanda FDA to conduct active surveillance of DTG-based ART regimens to determine their safety. After approval of the study protocol, its implementation plan, SOPs, and a patient consent form by the Rwanda National Ethics Committee, enrollment of participants started in December 2021 at 20 HFs and closed in May 2022, with 1,437 participants enrolled.

MTaPS supported the RBC in conducting a situational analysis of ARV multi-month dispensing (MMD) and pack size, which facilitated the roll-out of 6MMD using a recommended 90-pack size. MTaPS supported the development of a manual to improve pharmaceutical management in HFs via DTCs, now

known as MTCs. The manual was validated by staff from 29 DHs, 5 referral hospitals, and 5 university teaching hospitals out of the 47 facilities involved in an earlier MTC functionality assessment survey. The MTC manual will guide their establishment in HFs and the document has been developed alongside tools and SOPs to guide HCWs on monitoring medicines, including use of MNCH medicines and AE reporting.

YEAR 4 ACHIEVEMENTS & RESULTS

During PY4, MTaPS supported Rwanda FDA and other stakeholders in validating the five-year Rwanda FDA Business Plan 2021–2026, and a technical brief on the business plan development process was created to provide guidance on the approach and steps in case of future similar activity in the country or elsewhere. The IRIMS test system has been deployed on the Rwanda FDA’s local test server, and the hosting servers required for optimal running are under procurement. By PY4 Q4, 177 Rwanda FDA staff had received hands-on training on the management and use of IRIMS.

As part of support to strengthening MTCs in hospitals and CQI of appropriate use of medicines, including those used in MNCH, MTaPS printed seed copies of the MTC manual and a checklist to monitor MNCH medicine use at HFs, with a plan to train MTC members on implementing the MTC manual and orienting on MTC tools, SOPs, the MNCH checklist, and implementation manual for cold storage of oxytocin.

MTaPS conducted training on PV for 19 participants, 12 from NPAC and 7 from Rwanda FDA’s PV and safety monitoring division. The training equipped them with the knowledge and skills to play their advisory and technical roles and strengthen evidence-based decision making. In the ongoing active surveillance of DTG-based regimens, for the enrolled 1,437 participants as of September 30, 2022, only 9 AEs, i.e., mild skin rashes, have been reported.

In PY4, MTaPS supported Rwanda FDA in conducting a medicine dossier assessment retreat to reduce the backlog of dossier applications. 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 remaining 100 were pending with queries to be addressed by the applicants.

QUARTER 4 ACHIEVEMENTS & RESULTS

OBJECTIVE I: STRENGTHEN GOVERNMENT AND HEALTH WORKER CAPACITY TO MANAGE PHARMACEUTICAL SYSTEMS

Streamline registration of medical products (essential medicines, vaccines, and medical devices), including those used in HIV/AIDS, MNCH, and FP programs (activity continuing from FY21)

To strengthen Rwanda FDA staff capacity to regulate medical products, MTaPS facilitated the enrollment of 111 Rwanda FDA staff to the MER online e-learning course uploaded on the Rwanda FDA website to improve their skills in evaluating medicine technical files. Of the 111, 8 have completed the course.

Support functionality of DTCs and enhance their capacity to manage medicines at facility level (activity continuing from FY21)

As part of PSS, MTaPS is providing support to MOH to strengthen its governance and oversight roles on the implementation and functioning of MTCs in HFs. With MTaPS’ support, a training guide,

presentations, and job aids for training on the MTC manual and appropriate storage of oxytocin were developed and then reviewed by MOH.

OBJECTIVE 2: PROMOTE THE AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION FOR EVIDENCE-BASED DECISION MAKING

Support replacement of the Product Regulatory Information Management System (PRIMS) with the IRIMS for effective regulatory functioning of Rwanda FDA

MTaPS has provided technical assistance and installation of IRIMS to increase the efficiency of the Rwanda FDA's regulatory functions. The IRIMS test system was deployed on the local Rwanda FDA server. MTAps supported Rwanda FDA in finalizing data cleaning, establishing data sets, and migrating paper-based data into IRIMS. In addition, progressive system enhancement based on user requests, together with system validation and testing, has been conducted along with the involvement of internal users for the pilot phase. To further contribute to system strengthening, MTAps handed over a professional-grade printer to Rwanda FDA for hard copy document production.

OBJECTIVE 3: STRENGTHEN SYSTEMS FOR PROVIDING SAFE, PATIENT-CENTERED PHARMACEUTICAL CARE SERVICES OF ENSURED QUALITY

Support establishment of a system for active surveillance of the new DTG-based regimen (Activity continuing from FY21)

In September 2022, MTAps supported the RBC and Rwanda FDA in carrying out a quarterly supportive supervisory visit to the 20 study sites implementing the active surveillance program to provide continuous mentorship for quality and consistency in implementation. The supervisory visit helped identify what is going well at the facilities and what needs to be strengthened further. The supervisory team and the health facility staff addressed some of the challenges on the spot, and each site developed an improvement plan. MTAps also supported monthly data cleaning and analysis to ensure data quality and, working with RBC and Rwanda FDA, conducted a quarterly coordination and data review meeting to review implementation progress and determine areas for improvement and possible interventions to mitigate challenges. Follow-up with the enrolled 1,437 participants is continuing to identify, register, and report any AEs. In terms of follow-up visits, 1,393 have had their first, 1,251 their second, 1,123 their third, 869 their fourth, 602 their fifth, and 338 their sixth follow-ups.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

Program implementation needs to be flexible. In strengthening automation of Rwanda FDA regulatory processes while implementing IRIMS, the program had planned to purchase a virtual server and cloud storage for the system at the National Data Center. However, during the process, because of the center's failure to comply with the US National Defense Authorization Act 889 regulation, MTAps could not proceed with this plan. To mitigate this issue, the program took the alternative of procuring physical servers.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Field support (FS) work plan activity 1.2.1a and American Rescue Plan Act (ARPA) work plan 1.2.1b: Undertake training of MTCs	December 2022
FS activity 1.1.1c: Provide technical assistance to undertake the mid-term evaluation of the Rwanda FDA's Four-Year Strategic Plan (2021-2024)	December 2022
FS activity 2.1.1a: Prepare IRIMS application programming interfaces, documentation, and plug-ins to interface with other existing national systems (Single Window system, payment gateway: both via Rwanda Revenue Authority; National Product Catalogue)	December 2022
ARPA activity 3.2.1b: Interface the PViMS and IRIMS datasets by integrating the relevant, common key data elements on a dashboard, which reports on selected key performance indicators	December 2022
ARPA activity 3.1.2: Support the RBC in conducting a feasibility study on the transition from the monthly dispensing program to bimonthly dispensing (2MMD) for adherent breastfeeding mothers and new clients on ARVs	November 2022

Table 25. Quarter 4, FY22, Activity Progress, Rwanda – FIELD SUPPORT

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>FS Activity 1.1.1: Strengthen the capacity of Rwanda FDA in regulating pharmaceuticals used in HIV/AIDS, MNCH, and FP/RH programs</p> <p>Activity Description: Develop separate guidelines for registering in vitro diagnostics (IVDs)</p>	1.2			MTaPS has reviewed the regulations governing the registration of medical devices by including clauses for the regulation of IVDs. A draft report is undergoing technical review. In addition, MTAps has developed guidelines on assessing IVDs technical files. A draft document is undergoing technical review.
<p>FS Activity 1.1.2: Streamline registration of medical products (essential medicines, vaccines, and medical devices), including those used in HIV/AIDS, MNCH, and FP programs (activity continuing from FY21)</p> <p>Activity Description: Support implementation of the designed eLearning module on MER in collaboration with the University of Rwanda, Rwanda FDA, and NPC</p>	1.2, 2.1			MTaPS facilitated the enrollment of 111 Rwanda FDA staff to the MER online e-learning course uploaded on the Rwanda FDA website. Of these 111, 8 have completed the course.
<p>FS Activity 1.2.1/ARPA Activity 1.2.1: Support functionality of DTCs and enhance their capacity to manage medicines at facility level</p> <p>Activity Description: Conduct training of DTCs in CQI and appropriate use of medicines; support MOH's integration of pharmaceutical service standards</p>	2.2			With MTAps support, a training guide, presentations, and job aids for training on the MTC manual and appropriate storage of oxytocin were developed and then reviewed by MOH. Training date is pending confirmation with MOH.
<p>FS Activity 2.1.1: Support replacement of PRIMs with IRIMS for effective regulatory and PV functioning of Rwanda FDA</p> <p>Activity Description: Support to customize and install IRIMS on Rwanda FDA servers; conduct training of selected Rwanda FDA staff as master trainers in IRIMS operations</p>	3.1, 2.2			IRIMS has been deployed on the Rwanda FDA test server and system enhancements made based on user department requests. System validation and testing is ongoing. Data entry, cleaning, remapping, and migration have been completed. Training and retraining of 177 Rwanda FDA internal users, including technical officers, on the system has been undertaken. Internal users were involved in the pilot phase test. A second training of selected Rwanda FDA staff as master trainers in IRIMS operations was held.
<p>ARPA Activity 3.1.2: Enhance the capacity of RBC to manage MMD of ARV medicines to ART patients</p> <p>Activity Description: Support RBC in conducting a feasibility study on the proposed adjustment from monthly to 2MMD for adherent breastfeeding mothers and new clients on ARVs</p>	3.1			Working with RBC, data collection for a situational analysis to determine the impact of implementing 3MMD and 6MMD and a feasibility study on the transition of clients from the monthly dispensing program to 2MMD for adherent breastfeeding mothers and new clients on ARVs have been initiated. The studies will inform RBC on the benefits of implementing differentiated service delivery models to HCPs and clients.

<p>FS Activity 3.1.3: Improve access to and administration of oxygen to hypoxic newborns and children with pneumonia</p> <p>Activity Description: Review any existing resources for oxygen management and use in specific hospitals; support development of guidelines and SOPs on oxygen therapy and oxygen equipment utilization for use at facility level</p>			<p>MTaPS continued to follow up with MOH on the recrafting of the oxygen and respiratory care implementation roadmap and draft TOR for the steering committee that is expected to coordinate and guide implementation of oxygen-related activities. There is a new MOH technical lead, hence the draft roadmap and TOR for the proposed steering committee were shared with the new MOH lead for input and feedback, which will guide the next steps.</p>
<p>FS Activity 3.2.1a: Support establishment of a system for active surveillance of the new DTG-based regimen (activity continuing from FY21)</p> <p>Activity Description: Support ongoing implementation of the active surveillance system for DTG-based regimens at the 20 study sites; disseminate study findings and recommendations</p>	3.2		<p>Follow-up with the participants in the active surveillance study for monitoring AEs continues. Supportive supervision visits were undertaken, and facilities helped to develop plans to address gaps and challenges. Monthly data cleaning and analysis was supported to ensure data quality. Working with RBC and Rwanda FDA, a quarterly coordination and data review meeting was conducted to review implementation progress and determine areas for improvement and possible interventions to mitigate challenges.</p>

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 the development of 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. HCAs are a major public health problem that have an impact on morbidity, mortality, and quality of life and present a significant economic burden for the health system. However, a sizable percentage of these infections are preventable through effective IPC measures, 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 an NSP for the prevention of 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 health system strategies put in place to ensure that an early preparedness and response team is available to prevent EVD outbreaks and has response tools in case of an outbreak.

CUMULATIVE PERFORMANCE TO DATE

MTaPS Rwanda is one of the key stakeholders working with MOH and RBC to ensure that the developed documents on EVD prevention and control are reviewed by experts and validated and disseminated to HFs. In May 2021, MTAps began developing and reviewing key strategic documents on EVD prevention and control for MOH. The work was needed to provide HFs with the most current and updated NSP for EVD prevention. It was also needed for establishing a validated and approved national IPC policy to ensure a measurable preparedness and response plan. The developed IPC documents and NSP were reviewed by experts who helped strengthen them. MTAps also supported MOH and RBC in developing IPC risk communication materials to ensure that IPC messages are communicated effectively to the population 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 DHs.

In Q2, the public health emergency response division of the RBC and 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/guide and materials be developed. In Q3, MTAps supported development and review of the IPC training manual and the addressing of comments and

feedback on the manual from a technical team at MOH. A second review and validation were recommended for Q4.

YEAR 4 ACHIEVEMENTS & RESULTS

During Q4, MTaPS supported development of the IPC training materials/curriculum as requested by MOH. By August 2022, all training materials had been aligned with MOH requirements. Considering the EVD outbreak in Uganda in September 2022, the guidelines and the training materials have been successfully used by both MOH and RBC to train health care and front-line workers starting with Musanze as part of EVD preparedness. In addition, in the last week of September into the first week of October, simulation exercises were conducted in high-risk zone HFs, which include MTaPS-supported Nyagatare DH, Butaro Hospital, and Byumba DH. Finally, considering the success of the MTaPS-supported training, the ministry is finalizing internal procedures to officially approve the guidelines and tools for use nationwide.

QUARTER 4 ACHIEVEMENTS & RESULTS

The main deliverable during Q4 has been the development of the training materials/curriculum and the alignment of the developed documents to MOH requirements, including the EVD-hemorrhagic fever disease national guidelines, IPC training manual, EVD handbook and job aids, and the IPC compliance monitoring tool, which is available for online use.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- MTaPS' support with the development of EVD IPC guidelines, tools and training materials, and updating related IPC policies was critical in preparation for a crisis. In the face of the recent EVD outbreak in Uganda and renewed epidemiological threats to the safety and well-being of the Rwandan people, the political will of the Rwanda Government removed previous administrative bottlenecks. This intervention quickened the official endorsement of the above EVD documentation by MOH and RBC and their nationwide implementation, which includes training, simulation exercises, assessment of HF compliance with established requirements, and addressing any remaining gaps.
- Although immediate capacity-building needs have been swiftly addressed, proactive outreach to MOH and RBC regarding any additional needs to contain the EVD outbreak should be considered, as the outbreak is not yet contained and poses a real risk.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Capacity-building training of the health care providers in the implementation of EVD guidelines and tools	October–December 2022
Conducting simulation exercise at points of entry	October–December 2022

Table 26. Quarter 4, FY22, Activity Progress, Rwanda – EBOLA RESPONSE

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 2: Strengthen human and organizational IPC capacity</p> <p>Activity Description: Capacity building of HCPs in implementing EVD guidelines and tools</p>	2.2			<ul style="list-style-type: none"> ▪ MTaPS supported development of guidelines, SOPs, and job aids for EVD/HFD, including training materials. ▪ With MTaPS technical support and working with MOH and RBC, critical SOPs and training materials have been developed and are in the process of being approved by MOH.
<p>Activity 5: Provide training using existing training packages</p> <p>Activity Description: Conduct simulation exercises at points of entry</p>	2.2			<ul style="list-style-type: none"> ▪ Simulation exercises are ongoing at the POEs

P. SENEGAL

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA-related goal of USAID MTaPS Senegal is to contain AMR by slowing the emergence of resistant bacteria and preventing the spread of resistant infections 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.

CUMULATIVE PERFORMANCE TO DATE

MTaPS supported the PREVENTION/AMR TWG under the aegis of the OH Secretariat to develop and validate the national AMS plan. MTaPS supported the Regional Development Committees to take ownership of and implement their OH/AMR action plan. Additionally, MTaPS supported the PREVENTION/AMR TWG in consolidating the 2021 AMR action plan and the multisectoral health security action plan by following the e-SPAR, which was approved by the OH High Council Steering Committee.

Senegal received a score of 3, or “developed capacity,” for IPC in the JEE assessment of December 2016. MTaPS thus targeted its support to 13 specific facilities that scored below the level received by the country in general. To date, MTaPS has supported these 13 hospitals to implement IPC improvement plans to address the gaps identified during the WHO IPCAF assessment. Eight of the 13 HFs during FY20 and FY21 were ready for reassessment in FY22. Five of the 13 are still in the process of implementing their improvement action plans and will be reassessed in PY5 Q1. Of the eight hospitals that were ready for reassessment:

- Two improved their IPC capacity from Inadequate to Intermediate
- Four improved their IPC capacity from Basic to Intermediate
- One improved its IPC capacity from Basic to Advanced
- One continued to sustain its Advanced IPC capacity level

In AMS, MTaPS has supported the development and validation of the multisectoral national AMS plan and the national antibiotic policy and STGs that include WHO AWaRe categorization of antibiotics.

YEAR 4 ACHIEVEMENTS & RESULTS

MTaPS helped strengthen the functionality of the AMR TWG by supporting effective coordination through meetings and workshops implemented by using the OH approach under the aegis of the Permanent Secretariat of Haut Conseil National de la Sécurité Sanitaire Mondiale (HCNSSM)/OH,

including through (1) celebration of WAAW through joint support with Breakthrough Action, FAO, WHO, PATH/FAO/Fleming Fund, REDISSE, including an activity to orient health desk journalists on OH and AMR resulting in the establishment of the One Health Journalists Network; (2) technical contribution to the multisectoral meeting on the new project Multipartners Trust Funds on AMR; and (3) development of the 2022 multisectoral health security action plan by using results from an assessment of the 2021 plan and by following the e-SPAR that included an IPC component targeting all country HFs.

MTaPS supported ICCs in eight MTAps-supported hospitals (three from FY2019/2020 and five from FY2021) in internally reviewing the implementation of their respective IPC improvement action plans, which were developed in line with the baseline assessments. The ICCs conducted the reviews using the WHO IPCAF. As a result, two hospitals improved their IPC capacity from Inadequate to Intermediate, four from Basic to Intermediate, one from Basic to Advanced, and one sustained its Advanced IPC capacity level.

MTaPS provided technical support to DQSHH's biannual supportive supervision visits by using the newly developed supervision checklist that provides the IPC capacity level for each HF visited. One hospital sustained its Advanced IPC capacity level, five hospitals and three health centers had an Intermediate IPC capacity level, and one health center had a Basic IPC capacity level. The HFs visited in the Thiès, Fatick, and Diourbel regions developed or updated their IPC improvement action plans.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Strengthen the functionality of the AMR TWG by supporting effective coordination through regular meetings

Under the leadership of the USAID Mission, MTAps worked with FAO, Breakthrough Action, AFROHUN, and IDDS to organize a four-day joint work-planning workshop with the appropriate government entities and ministries, including agriculture, animal health, environment, human health, and professional associations to develop the 2023 USAID IPs' GHSA consolidated work plan. This work plan was developed using the WHO IHR/JEE third edition and the OH approach under the aegis of the USAID GHSA team and the PS/HCNSSM. During the workshop, USAID IPs shared their respective FY23 GHSA work plan activities to foster coordination. At the end of the workshop, participants adopted the finalized GHSA consolidated work plan for FY23 and provided a set of recommendations to improve efficiency in implementing the consolidated work plan activities.

RESULT AREA 2: IPC

Provide technical assistance for supportive supervision to increase compliance with the updated IPC guidelines and standards

MTaPS provided technical support to DQSHH to train 27 regional supervisors (11 female, 16 male) from all 14 of the country's medical regions on the newly developed IPC supervision checklist. The trained supervisors increase the country's human resources capacity to conduct IPC supervision activities. The supervisors integrate IPC supervision into their routine supervision plan and activities for

primary health care and MNCH interventions. This training activity is a critical step and contributes to making IPC supervision activities sustainable.

Support the revitalization of ICCs in select district and regional hospitals

MTaPS worked with DQSHH to support implementation of the improvement actions plans of the 5 hospitals revitalizing their ICCs. As a result, 130 ICC trainers (72 female, 58 male) were trained on IPC, including the hospitals of Kédougou (27 trainers), Abass Ndao (27 trainers), Fann (31 trainers), Sédhiou (16 trainers), and Kaolack (29 trainers). Subsequently, MTAps supported the trained trainers to organize IPC training sessions for 211 HCWs (136 female, 75 male) and 80 hospital administration support staff (48 female, 32 male) in Kédougou (35) and Abass Ndao hospitals (45).

Support the development, dissemination, and implementation of the National IPC Strategic Plan

MTaPS had previously established a subcontract with SunuSante Consulting to develop the National IPC Strategic Plan. As a preparatory step, the firm collaborated with DQSHH to develop two interview guides to assess IPC stakeholders' knowledge, experience, and recommendations in implementing IPC activities in Senegal:

- One interview guide contained general knowledge questions on IPC implementation and targeted KIs, including head doctors, hospital directors, and other NGOs.
- One in-depth interview guide had more specific questions targeting ICC coordinators in hospitals and health centers, NGOs supporting the DQSHH in IPC implementation, and other departments in MOH.

After it collected and processed the data, the SunuSante presented the results to DQSHH and MTAps at a workshop on August 12, 2022, at MOH. Overall, an insufficient number of stakeholders responded to the interview guides the firm sent to targeted KIs. As a corrective action, meeting participants decided to expand the list of stakeholders and to have DQSHH take the lead in sending the interview guides and following up with reminder phone calls. In addition to interviewing KIs, the firm collected information on IPC program implementation during the IPCAT2 assessment organized by DQSHH with WHO support August 30-31, 2022. Using all the information collected, MTAps and the firm worked with DQSHH and all IPC stakeholders to organize a workshop for September 8-10 to develop the first draft of the strategic plan.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

The performance of the hospital ICC depends on engaging the ICC coordinator and the commitment of hospital administration. In Abass Ndao Hospital, leadership supported the hospital ICC in organizing several IPC training sessions simultaneously to speed up implementation of capacity-building activities in the hospital improvement action plan that was developed following the initial baseline assessment.

ACTIVITIES & EVENTS FOR NEXT QUARTER

FY23 workplan still under review and pending approval.

Table 27. Quarter 4, FY22, Activity Progress, Senegal – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Strengthen functionality of the AMR TWG by supporting effective coordination through regular meetings	5.4	1.1	N/A	MTaPS continued providing technical support to 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 updated IPC guidelines and standards	5.4	2.5	N/A	MTaPS has been supporting DQSHH's biannual supervision visits in a complementary manner with REDISSE/World Bank. MTAps will follow up with and support the 27 medical regions' supervisors trained on IPC with MTAps support.
Activity 2.5.3: Support revitalization of ICCs at five selected district and regional hospitals	5.4	2.5	N/A	In preparation for extending ICC revitalization work to the five new regional hospitals targeted by MTAps as well as a sixth hospital requested by MOH, MTAps provided technical and financial support to DQSHH to organize baseline assessments for five hospital ICCs. The sixth hospital's baseline assessment is planned for next quarter. MTAps will continue providing technical support to DQSHH to ensure that all training activities from the hospitals' IPC improvement action plans are completed by the end of next quarter.
Activity 2.5.4: Support the development, dissemination, and implementation of the national IPC strategic plan	5.4	2.5	N/A	In collaboration with DQSHH, MTAps has completed the process to subcontract with a consultant firm to develop the national IPC strategic plan. The work is in progress and will be completed by November 30, 2022.
Activity 3.1.1: Support implementation of capacity-building interventions to increase compliance with antibiotic STGs	5.4	3.1	N/A	MOH has approved the antibiotic policy and STGs, which will be used to develop training modules for supervisors and ICC antibiotic subgroups.

EBOLA RESPONSE ACTIVITIES IN SENEGAL

OVERVIEW

MTaPS proactively supported revitalizing the Ebola IMS at the HEOC. The center has not implemented any activities since May 2021. During the revitalization, MTaPS engaged with MOH counterparts, including the HEOC, the Directorate of Disease Control, and the head of Ebola IMS. As a result, HEOC and Ebola IMS started organizing weekly meetings, which MTaPS attended to provide technical support for reviewing Ebola preparedness plans, including detailed activities and a timeline.

CUMULATIVE PERFORMANCE TO DATE

MTaPS supported a workshop to finalize 32 SOPs covering case management (6), IPC (8), surveillance (9), behavior change communication (4), logistics (3), and vaccination (2). The IMS also requested support for the integration of an SOP for psychosocial care. MTaPS thus provided technical and financial support for a workshop to develop the SOP for psychosocial care of patients, families, and HCWs affected by Ebola.

In collaboration with MTaPS, the EVD IMS also conducted a baseline assessment of the existing Ebola treatment centers in the highest-risk regions. From June 19 to 30, 2022, a first assessment was conducted in the Kédougou region (seven land-entry points) and Tambacounda (nine land-entry points).

YEAR 4 ACHIEVEMENTS & RESULTS

In April 2022, MTaPS supported a workshop to validate the psychosocial care SOP and integrated it into the finalized manual.

From June 19 to 30, 2022, MTaPS provided technical and financial support for IMS to conduct a baseline assessment of the treatment and transit centers dedicated to isolating EVD cases in Kédougou and Tambacounda identified in the national multisectoral plan as high-risk areas. The assessment also covered the entry points of the Kédougou and Tambacounda regions, which are the frontiers of Mali and the Republic of Guinea. The assessment involved IMS members, local administrative authorities, the concerned medical regions, and health districts. The objective was to take stock of the available and functional equipment and staff already trained in the Kédougou and Tambacounda regions and to assess, with the administrative and health authorities, the state of preparation of the regions of Kédougou and Tambacounda in case a response to EVD was needed.

QUARTER 4 ACHIEVEMENTS & RESULTS

In collaboration with MTaPS, the EVD IMS conducted a baseline assessment of the existing Ebola treatment centers in the highest-risk regions. From August 9 to 13, 2022, another assessment was conducted in the regions of Kolda (two land-entry points) and Ziguinchor (five land-entry points, one seaport, and one international airport).

The assessment used a supportive supervision approach to help the different regional actors and stakeholders at the local level (such as at health posts) to (1) identify gaps and dysfunctions during implementation of the overall approach in preparation for a possible Ebola response and (2) support local stakeholders to communicate with the central-level EVD IMS team on priority corrective actions by involving the management teams of the region, districts, health posts, defense and security authorities, administrative authorities, community actors, etc.

The approach includes the following elements:

- Field visits at points of entry, treatment and transit centers, HFs, and the contribution of other levels of participation
- Inventory and mapping of HFs' readiness (availability of an isolation room, associated logistical means, personal protective equipment, etc.)
- Capacity building of front-line intervention teams
- Assessment of emergency needs
- Joint organization of mission feedback meetings
- Recording priority actions to be considered in the EVD preparedness and response roadmap

Findings of the supportive supervision mission show that temporary shelters formerly dedicated to managing EVD cases are no longer functional in any of the visited entry points in the Tambacounda and Kédougou regions. Certain shelters are completely dilapidated, others were relocated, or were not equipped, despite the recent needs related to managing COVID-19. For continuous management of EVD cases, each region needs to maintain a solid isolation site not only for EVD, but any tropical infectious diseases with pandemic potential.

In the Kolda region, the shelter formerly dedicated to managing EVD cases in Kalifourou is still in place and was used during the COVID-19 response. However, although the equipment and supplies acquired in 2014 during the Ebola response are still stocked, they expired in 2017. Because of the lack of information, the treatment center manager did not want to use the equipment and supplies that were originally designated for Ebola. He did not know that the same materials could be used for COVID-19.

Additionally, the region of Ziguinchor has a large treatment center with adequate equipment and respect for proper procedures for the transit of personnel and patients during the Ebola outbreak. In some border entry points, such as in Kalifourou, Diouloulou, Fongolemi, and Kidira, hand washing units are still in place for travelers entering the country, and hygienists and community actors are still screening each passenger at the border.

In the region of Ziguinchor, the international airport of Cap Skiring and the naval base were also assessed. The latter oversaw the transfer of suspected Ebola cases from ships arriving from Ghana, Gambia, and Guinea, and requested to be included in training as naval base personnel still have issues with how to put on and remove PPE.

The IMS requested support to conduct the same activity in other high-risk entry points in the regions of Matam, Saint Louis, and Dakar. It also sought support in the printing and dissemination of the newly updated SOP manual for EVD and other hemorrhagic fever diseases.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

The assessment of border entry points with Guinea in the Kédougou region revealed that isolation sites for suspected EVD cases had collapsed due to structural weaknesses and low-quality building materials. The isolation sites must be rebuilt with stronger construction materials.

In five out of the six border entry points visited, the EVD case isolation sites were located between the border patrol station and the health post. This has enabled effective collaboration between the health teams and the border patrol.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
MTaPS will support the printing of 2,000 copies of the validated EVD updated SOP manual.	November 2022
MTaPS will support the dissemination of the printed EVD updated SOP manual.	November–December 2022
MTaPS will support the use of the printed EVD updated SOP manual to conduct a baseline assessment of the existing Ebola treatment centers in the northern regions of Saint-Louis and Matam.	November–December 2022

Table 28. Quarter 4, 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	N/A	N/A	N/A	MTaPS continued providing technical support to IMS Ebola through regular coordination meetings.
Activity 2: Develop adopt/update guidance and SOPs	N/A	N/A	N/A	MTaPS supported development and validation of Ebola guidance and SOP manuals, which will be used for field assessment visits to Ebola treatment and transit centers and border posts in the regions of Matam and Saint-Louis.
Activity 3: Assess and monitor compliance with the SOPs/guidelines	N/A	N/A	N/A	MTaPS has begun the procurement process to identify a firm to print the Ebola guidance and SOP manuals.

Q. TANZANIA

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

OVERVIEW

The GHSA goal of MTaPS Tanzania is to support AMR containment by slowing the emergence of resistant bacteria and preventing the spread of resistant infections. To achieve this, MTaPS Tanzania is implementing the strategic objective of improving quality of care and containment of AMR in the country by building capacity of in-country stakeholders through a system-strengthening approach in three result areas: effective MSC on AMR, IPC, and optimizing the use of antimicrobial medicines.

MTaPS continues to focus on strengthening the governance of the 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, DHIS-2, to provide the MOH with data for decision-making about IPC and for implementation of CQI methodologies. MTaPS supported the assessment of AMS policies using a multisectoral approach and active implementation of QI of AMS practices in HFs. PY5 implementations for GHSA will build on the work done in PY1–PY4.

CUMULATIVE PERFORMANCE TO DATE

During PY1–PY4, MTaPS supported 37 WHO IHR benchmark actions: 8 contributing to MSC/AMR, 20 to IPC, and 9 to AMS. MTaPS helped the 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 of 47% (8/17). MTaPS supported the 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-AMR 2017–2022 across human, plant, animal, and fishery sectors. MTaPS supported the setup and operation of IPC and AMS TWGs that helped to improve the implementation of IPC and AMS activities in Tanzania. MTaPS supported the development and the operationalization of the “Multisectoral AMR Communication Strategy: Moving from Awareness to Action 2020–2025,” which helped to improve OH communications, practices, and implementation between the MOH, the MALF, the President’s Office Regional Administration and Local Government, and the four TWGs that feed into the MCC (AMR awareness, AMR surveillance, IPC, and AMS).

In IPC across PY1–PY4, MTaPS Tanzania has 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) which 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 for a cumulative total of 519 HCPs (57% female, 43% male). To improve IPC implementation and

sustainability, MTaPS established and strengthened IPC committees in 10 supported hospitals and conducted clinical mentorship and CQI that brought about improved WASH and hand washing practices, and reduced SSI and nosocomial infections. An IPC e-Learning course was developed which equipped the Center for Distance Education in Morogoro to offer online IPC training to HCPs. Furthermore, MTaPS supported the MOH to review the IPC training curriculum for health colleges and oriented 61 tutors on its use. MTaPS supported the MOH to develop a national IPC M&E system, including reporting to the DHIS2 and training RHMTs, facility IPC focal persons, and facility health MIS focal persons on IPC M&E tools, as well as training on reporting IPC indicators into DHIS2. MTaPS Tanzania has also supported the MOH to develop the HAI surveillance system with reporting through DHIS2. All 10 MTaPS-supported facilities are now conducting HAI surveillance and reporting to the MOH, while using the data for facility IPC improvement.

MTaPS implementation of AMS activities across PY1 to PY4 has so far contributed to improving Tanzania's baseline JEE score of 1 toward 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 the MTC guidelines, the STGs, and the NEML consisting of the AWARe categories of antibiotics. MTaPS conducted training on AMS, specifically ethical prescribing and dispensing of antimicrobials, among 110 (43 female, 67 male) HCPs of 10 supported facilities. MTaPS, in collaboration with the MOH, supported HCWs to implement AMS interventions including reviving MTCs that will foster AMS implementation at the hospitals. MTaPS Tanzania supported the MOH to develop an AMS checklist with indicators to monitor progress of AMS implementation at the ministry and at HF levels.

YEAR 4 ACHIEVEMENTS & RESULTS

During PY4, in MSC, MTaPS advocated for a multisectoral IPC TWG, and now the IPC TWG includes members from human as well as animal, plant, and environmental sectors. In IPC, MTaPS printed and distributed 900 books countrywide (300 IPC register books, 300 IPC monthly summary form books, and 300 IPC quarterly summary form books). IPC M&E training materials were developed, and 77 HCWs (38 female, 39 male) were trained on IPC M&E and data entry into DHIS2 during the countrywide rollout of the IPC M&E protocol by the MOH. HAI surveillance guidelines/protocol, training materials, and SOPs were developed for use in rolling out HAI surveillance countrywide. The 10 supported HFs have been mentored on conducting HAI surveillance at the facility level. In AMS, MTaPS conducted AMS supportive supervision in its 10 supported facilities to track performance across a range of indicators from the WHO AMS program core elements assessment tool. In addition, MTaPS conducted a rapid assessment of regulations, policies, and supply chain governance related to antimicrobials in both human and animal health, which will be used to inform the development of the new NAP AMR 2023–2028. A national hospital formulary template was developed and shared with all hospitals to aid them in developing their own hospital formulary. The use of the ECHO platform to mentor HCWs of both MTaPS- and non-MTaPS-supported facilities in IPC and AMS was launched, aiming at improving facility-level IPC and AMS practices. MTaPS attended an IDDS DQA workshop as part of strengthening relationships with USAID partners and improving the quality of data.

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MSC OF AMR

Review plans and progress through regular meetings of the AMR governance committee

MTaPS supported the MOH in organizing an IPC TWG meeting of 12 participants (3 female, 9 male), in which 8 new members were added from the animal, agricultural/plant, and environmental sectors. The review of the implementation status of the NAP 2017–2022's IPC section was completed, and participants proposed activities to be incorporated into the NAP 2023–2028. Furthermore, participants discussed the findings of an IPC assessment conducted in the 10 MTAps-supported facilities using IPCAF and developed an action plan for each sector to address identified gaps and make improvements.

MTaPS provided technical support to the MOH during the review of the implementation status of NAP AMR 2017–2022 from August 11 to 17, 2022. All TWGs participated and worked to prepare an implementation status report and proposed activities for the new NAP AMR 2023–2028. MTAps collaborated with the MSC team to develop a draft NAP AMR 2023–2028 using WHO guidance.

RESULT AREA 2: IPC

Enhance data generation and use through supporting active implementation of the approved national IPC M&E protocol

In Q4, MTAps provided technical support to the 10 MTAps-supported facilities on the use of IPC M&E tools, clarifying the meaning and importance of indicators and reporting into DHIS2. This has helped to enhance reporting of quality data into the system which is being used for decision-making from the HF to the national level.

MTaPS continues to implement the IPC ECHO clinic by running one IPC session each month for the 10 supported hospitals. HCPs from other facilities have been mentored and shared their experience on various IPC topics, such as IPC practice in the operating department, SSI prevention, and prevention of maternal and newborn infections. This helps HCPs learn, share experiences, and implement various IPC interventions that help to improve IPC practices at their respective facilities and report on them accordingly.

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

Assess stewardship policies and activities, including regulatory framework and SCM of antimicrobials, using a multisectoral approach

MTaPS conducted a rapid situational analysis of AMS policies in the human and animal sectors, identifying gaps that influence effective AMS implementation, and recommended a mitigation plan. Sixteen policies and regulations were assessed for both human and animal health. Key findings in the human health sector were that a regulatory system is in place; however, within the legal system there are no sections that specifically address antimicrobial distribution, use or audit, or establishment of AMS programs at the HF level. In the animal health sector, the findings were that the privatization of veterinary services has seen a proliferation of operators and diversification of medicinal products and origin, which call for stronger control and monitoring of product quality. The findings and recommendations were presented by MTAps in the NAP AMR 2023–2028 development meeting for consideration into the new NAP.

Continue to support active implementation of AMS practices in 10 supported HFs

MTaPS provided technical support to finalize the national hospital formulary template, which is now being used by hospitals in Tanzania to develop/improve their own hospital formularies while the MOH approval process is in progress. Experience sharing on AMS implementation was conducted among MTAps- and non-MTAps-supported facilities, MTAps provided technical support to assist facilities review their own hospital formulary. Facilities discussed challenges and mitigation ideas to improve AMS implementation. The AMS ECHO clinic continued to be utilized by running one session per month for mentorship and sharing experiences.

BEST PRACTICES/LESSONS LEARNED

- Active leadership from the MCC is required to coordinate development of the new NAP-AMR 2023–2028, as it involves multisectoral stakeholder engagement from the animal, human, environment, and plant sectors.
- Sensitization of the MOH to expand the MSC IPC TWG was needed to ensure that the TWG’s membership was revised to encompass multisectoral stakeholders from the animal, human, environment, and plant sectors. This helps effective IPC interventions implementation in the animal, human, environmental, and plant sectors.

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, participate in AMS and TWG IPC meetings	October 2022
Activity 1.1.3: Support the review of the multisectoral NAP-AMR	November 2022
Activity 2.2.1: Strengthen the capacity of journalists to advocate IPC	October–November 2022

Table 29. Quarter 4, FY22, Activity Progress, Tanzania – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.1.1: Review plans and progress through regular meetings of the AMR governance committee</p> <p>Activity Description: Conducting regular MSC meetings to oversee implementation of NAP AMR</p>	5.4	1.1		MTAPS supported a workshop for review of the implementation status of the NAP AMR 2017–2022. This was done using an OH approach with all sectors working together through coordination by the MCC August 11–17, 2022. All TWGs participated and worked to prepare an implementation status report and proposed activities for the new NAP AMR 2023–2028. MTaPS collaborated with the MSC team to develop a draft NAP AMR 2023–2028 using WHO guidance.
<p>Activity 2.3.1: Enhance data generation and use through supporting active implementation of the approved national IPC M&E protocol</p> <p>Activity Description: Support the 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</p>	5.4	2.3		MTaPS provided technical support to HFs to continue reporting IPC M&E indicators into DHIS2 to make data available for decision-making and IPC improvement. The technical implementation report was finalized and submitted for editorial review.
<p>Activity 2.5.1: Support active surveillance of HAIs, specifically SSIs</p> <p>Activity Description: Support the MOH on development of SSI guidelines and job aids, mentor HCWs, and monitor the SSIs, SSI guidelines and SOP under MOH approval</p>	5.4	2.5		Report on active surveillance of SSIs finalized and submitted for editorial review.
<p>Activity 3.1.1: Assess stewardship policies and activities, including regulatory framework and SCM of antimicrobials, using a multisectoral approach</p> <p>Activity Description: Review of current AMS policies, legislation, regulations and guidelines to draft a rapid situational analysis report</p>	5.4	3.5		Stakeholder consultation was undertaken to refine the initial draft report. Stakeholders were from both the animal and human health sectors. The second draft report is undergoing internal technical review. The findings and recommendations were presented in the NAP AMR 2023–2028 development meeting to feed into the new NAP.
<p>Activity 3.5.1: Continue to support active implementation of AMS practices in 10 supported HFs</p> <p>Activity Description: Development of a national hospital formulary template, AMS supportive supervision in the 10 MTaPS-supported hospitals</p>	5.4	3.5		A draft hospital formulary template has been shared with hospitals for their use to improve their own formularies. It is also undergoing internal review prior to editorial. Two hospitals have finalized their hospital formularies. MOH approval process for the template is in progress.

FIELD SUPPORT ACTIVITIES

OVERVIEW

The goal of MTaPS is to strengthen Tanzania's pharmaceutical system to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable medical products and medicine-related pharmaceutical services. This is done through strengthening the TMDA's institutional capacity to manage pharmaceutical systems via improving its MA and import processes for ARVs and improving its PV system using targeted interventions to enable evidence-based decision-making for patient safety. This will help maintain the TMDA's maturity level 3 according to the WHO GBT and provide evidence to grow TMDA toward maturity level 4.

CUMULATIVE PERFORMANCE TO DATE

MTaPS provided technical support to TMDA to improve efficiency in executing its regulatory functions by improving the capacity of TMDA medicine evaluators on medicine dossier evaluations to ensure the quality, safety, and efficacy of medicines such as ARVs. A total of 30 (12 female, 18 male) TMDA medicine evaluators were trained to conduct medicine dossier assessments. This helped to reduce the processing time for applications for the registration of new medicines. In addition, the assessors trained with support from MTaPS will continue to train new staff and enable sustainable knowledge transfer within TMDA and Tanzania at large.

In the area of PV, MTaPS facilitated the revision of the TOR for the national PV safety advisory committee, known as the Vigilance Technical Committee, which allowed incorporation of four pediatric experts. The Committee now has the capacity to assess pediatric ADRs and provide feedback to ADR reporters. MTaPS also supported the development of guidelines for monitoring the safety of medicines used in the pediatric population which will help improve monitoring of medicine safety among children, especially for medicines used to manage chronic diseases such as HIV/AIDS as well as children's susceptibility to ADRs. TMDA, with support from MTaPS, conducted a 10-day training aimed at building the capacity of TMDA staff to assess PSURs and risk management plans, consequently increasing the number of competent assessors at TMDA. Training took place for 27 (10 female, 17 male) new TMDA staff, interns, and external assessors on basic methods of assessing PSUR and risk management plan (RMP) for ARVs and other medicinal products. This support has helped TMDA to improve monitoring, review, and reporting of safety issues arising from medicines used by the pediatric population.

YEAR 4 ACHIEVEMENTS & RESULTS

A process improvement mapping for the registration and importation of ARVs, including DTG, for the public sector was conducted. MTaPS provided technical support on the development of process mapping tools for the registration and importation of ARVs in Tanzania. MTaPS identified KIs and requested their participation in in-depth interviews and performed qualitative and quantitative data analyses of survey responses. A stakeholder validation workshop was conducted that discussed the findings, challenges, and recommendations to be considered for improving the process for registration and importation of ARVs for the public sector.

To strengthen the existing passive medicine safety surveillance system for pediatric medicines used in the national HIV program, MTaPS supported TMDA to train members of the Vigilance Technical Committee for medicines, vaccines, medical devices, and diagnostics.

QUARTER 4 ACHIEVEMENTS & RESULTS

Activity implementation ended in Quarter 2 with the end of the work plan.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

N/A

ACTIVITIES & EVENTS FOR NEXT QUARTER

N/A

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 capacity of in-country stakeholders and facilities through a systems strengthening approach to implement Uganda's NAP-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 NAMRSC of the OHP.

CUMULATIVE PERFORMANCE TO DATE

Over PY 1–4, MTaPS has supported Uganda to improve its 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 set up and establish the NAMRSC and its TWCs. MTaPS highlighted the work done by two female leaders and champions in AMR in Uganda to advance gender equity considerations in leadership. MTaPS has supported the ASO TWC to develop two editions of the biannual AMS newsletter.

In IPC, over PY 1–4, MTaPS has helped Uganda improve its JEE-2 score by supporting 100% (5/5) of capacity level 2 actions, 100% (6/6) of capacity level 3 actions, 60% (3/5) of capacity level 4 actions, and 20% (1/5) of capacity level 5 WHO IHR benchmark actions. In 2019, MTaPS supported the MOH to conduct the first ever national IPC survey. MTaPS has subsequently applied best practices to implement CQI plans for IPC improvement at supported HFs. As part of capacity building at the HFs, MTaPS has conducted 90 mentorship visits in 13 HFs, reaching 2,244 HCWs (55% female, 45% male).

In the area of AMS, over PY 1–4, MTaPS has helped Uganda improve its JEE-2 score by supporting 50% (2/4) of capacity level 2 actions, 67% (4/6) of capacity level 3 actions, 43% (3/7) of capacity level 4 actions, and 14% (1/7) of capacity level 5 WHO IHR benchmark actions, thus contributing to sustaining level 3 and progressing toward levels 4 and 5. Working with the MOH, MTaPS has progressively built capacity for AMS in HFs through implementation of AMS CQI plans. MTaPS supported the NDA to develop a web-based application for routine collection of AMC data and subsequently developed a manual for national surveillance of antimicrobial consumption at the NDA. MTaPS assessed AMS policies, the regulatory framework, and the supply chain and completed an assessment of existing systems for monitoring AMU in humans and animals in both the public and private sectors in Uganda.

To bridge the gap between human health and animal health that was observed at baseline, MTaPS has supported the animal health sector by working with the MAAIF to develop an EVML, guidelines on antibiotic use in various food animals, IEC materials, and AMR awareness messages for use in the animal

health sector. Additionally, MTaPS supported the MAAIF to develop the national IPC plan for the agricultural sector. These activities support completion of actions under capacity level 2 on the JEE-2.

YEAR 4 ACHIEVEMENTS & RESULTS

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION FOR AMR

MTaPS worked with Makerere University to support the ASO TWC of the NAMRSC to publish and disseminate the second edition of the biannual AMS newsletter.

MTaPS supported the transfer of the MTaPS-developed information exchange platform to a new host—Makerere University’s Infectious Diseases Institute. A memorandum of understanding was put in place highlighting key roles and responsibilities of the new host.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

MTaPS supported the MAAIF to launch and disseminate IPC/AMS guidelines, IEC materials, and the EVML to key stakeholders, including district veterinary offices and farms in 18 districts. MTaPS also supported the MAAIF to develop the national plan and strategy for IPC for the agricultural sector.

MTaPS continued support for IPC CQI implementation to supported HFs through mentorship visits, CMEs, support supervision, and peer-to-peer benchmark learning activities. Notable improvements in IPCAF and HHSAF scores and HH knowledge since this benchmarking visit have been registered in the facilities (figure 3).

To foster sustainability for IPC implementation, MTaPS provided technical support to five USAID-funded regional programs (i.e., regional IPs) to build their capacity to implement IPC/WASH using the WHO approach. The regional IPs cascaded the implementation to the HFs and districts. As a result, 24 technical staff of the regional IPs were trained and these best practices were implemented in 277 facilities, reaching 395 HCWs and 364 members of the district health teams.

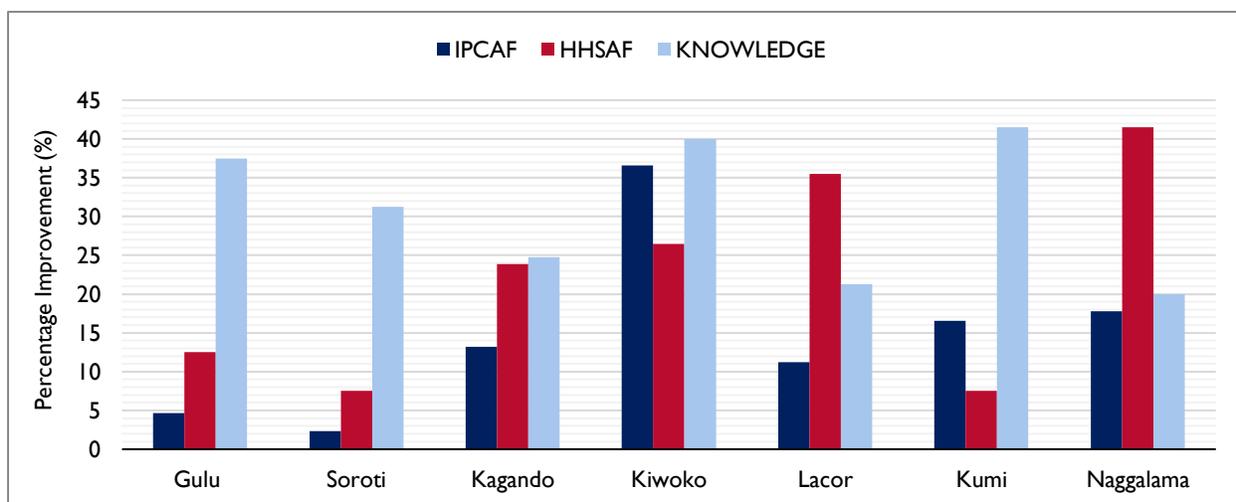


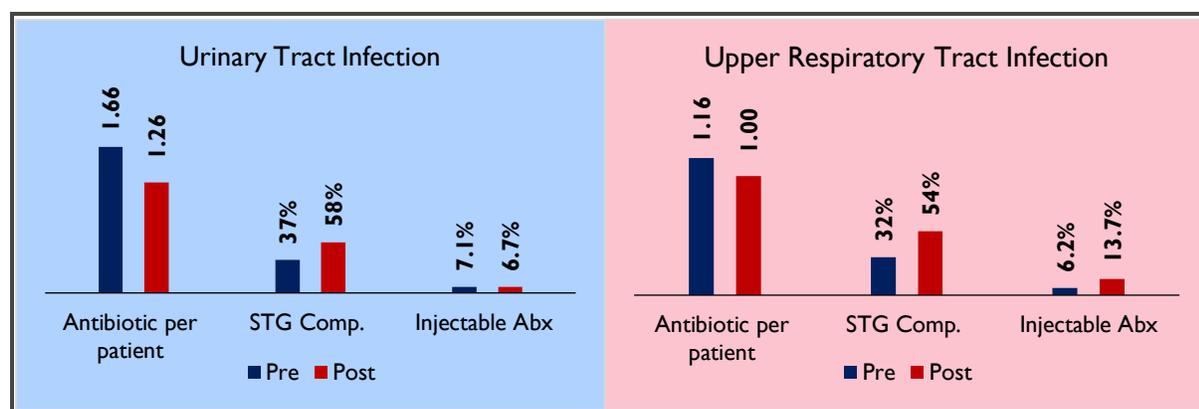
Figure 3: Percentage increment in IPCAF and HHSAF and HH knowledge in facilities

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

During PY4, MTaPS successfully conducted an assessment of existing systems for monitoring AMU in humans and animals in both the public and private sectors in Uganda.

MTaPS also supported the NDA to develop a web-based application for the routine collection of AMC data. Completion of this activity will allow Uganda to enroll in the Global Antimicrobial Resistance and Use Surveillance System and report on AMC both nationally and globally. Previously Uganda was only enrolled in and reporting into the AMR module of the Global Antimicrobial Resistance and Use Surveillance System.

Throughout Q4, MTaPS continued to provide support supervision and mentorship to hospital AMS teams to implement AMS while monitoring key AMS indicators, including prescription practices for urinary tract infections, upper respiratory tract infections, and surgical antibiotic prophylaxis. Assessment of these indicators was undertaken with demonstrated improvement (figure 4).



*STG Comp. – Standard treatment guidelines compliance, Abx – antibiotic

Figure 4: Change in antibiotic consumption, adherence to STG, and percentage of injectable antibiotics pre- and post-intervention

QUARTER 4 ACHIEVEMENTS & RESULTS

RESULT AREA I: EFFECTIVE MSC OF AMR

Strengthen institutional and HR capacity for AMR-related MSC

MTaPS supported the ASO TWC and Makerere University to collect articles for the third edition of the biannual AMS newsletter highlighting AMS activities implemented at the national and subnational levels. The articles are currently under review by the editors.

RESULT AREA 2: IPC

National IPC policy, guidelines, standards, and M&E developed and regularly updated, including the animal health sector

This quarter, MTaPS supported the MAAIF to conduct a situational analysis for IPC at the community and subnational levels. Additionally, MTaPS supported the MAAIF to conduct stakeholder engagement to share the situational analysis and the draft national IPC plan and validate their findings with stakeholders in the agricultural sector.

Improving quality of health care services through strengthening IPC at COEs

MTaPS has been providing technical assistance to the HH programs at seven COEs. MTAps undertook data collection on key IPC/WASH indicators (IPCAF, HHSFAF, HCW knowledge on HH/IPC, HH compliance, and point prevalence of HAIs) to evaluate the success of the intervention.

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

Strengthen pre-and in-service training to enhance HR competence in AMR

MTaPS continued its work with the Makerere University Biomedical Research Center to support the National Council of Higher Education and health professional bodies to revise pre-service medical curricula to incorporate content on AMR and health security and develop an education policy brief that synthesizes existing knowledge and highlights the need to incorporate AMR training into education programs. MTAps conducted three stakeholder engagement workshops to conduct an analysis of selected education curricula and draft and validate key documents.

In addition, MTAps supported the NAMRSC to establish the National Student AMR Charter to coordinate all university students engaging in AMR activities. TOR were developed; a leadership committee was elected; a steering committee, including mentors and national stakeholders, was established; and the National Student AMR Charter was launched.

Strengthen the COEs for AMS

Following implementation of AMS CQI plans in the supported HFs, MTAps undertook data collection on key AMS indicators to evaluate the success of the intervention.

In addition, MTAps worked with stakeholders to assess existing systems for monitoring antibiotic use in both the public and private sectors in Uganda. The findings of this assessment were validated through a joint stakeholder meeting. The report will inform the development of a national AMS strategy/plan for Uganda.

MTaPS also provided direct technical assistance to the NDA to develop a web-based application that will enable the routine collection of AMC data at the national level and the publication of an AMC report for Uganda. The NDA was also supported to draft a manual for national surveillance of AMC, which will facilitate the process of routine AMC data collection at the officially designated NDA ports of entry. Subsequent revisions to the manual will be made as more AMC data sources become available.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- Involving program beneficiaries in the planning phase for activity implementation leads to faster and better program results.
- The MTAps AMS approach can improve AMU/C for urinary tract infections and upper respiratory tract infections (possible related indicators) if capacity building and development is done using a stepwise approach.
- Leadership is the most important building block of the health systems strengthening approach for clinical and public health interventions.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
MSC	
Publish the third edition of the biannual AMS newsletter	November 2022
IPC	
Launch of the national IPC guidelines for the agricultural sector	December 2022
AMS	
WAAW 2022 activities	November 2022
Breakfast meeting to disseminate findings on the assessment of AMS policies in Uganda	November 2022
Quarterly meeting of the ASO TWC of the OH NAMRSC	December 2022
Conduct one supportive supervision visit to the COEs for AMS with MOH officials and establish reporting indicators for COEs	November 2022
Publish and disseminate a national report on AMC	November 2022

Table 30. Quarter 4, FY22, Activity Progress, Uganda – GHSA

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
<p>Activity 1.2.1: Strengthen institutional and HR capacity for AMR-related MSC</p> <p>Activity Description: Dissemination of previously published newsletter and development of the next edition of the newsletter</p>	5.4	1.2		Dissemination of the newsletter has been done, and articles for the next edition are currently under review.
<p>Activity 2.1.1: National IPC policy, guidelines, standards, and monitoring and evaluation developed and regularly updated, including the animal health sector</p> <p>Activity Description: Approval of the national IPC plan for the agricultural sector</p>	5.4	1.2		MTaPS conducted a stakeholder engagement meeting and a validation meeting to validate the IPC plan for the agricultural sector. The plan was validated, approved by all directors of the MAAIF, and is pending approval by the MAAIF Permanent Secretary.
<p>Activity 2.5.1: Improve the quality of health care services through strengthening IPC at COEs</p> <p>Activity Description: Submitting a technical highlight for activity 2.5.1</p>	5.4	2.5		The technical highlight has been developed and submitted for internal technical review.
<p>Activity 3.2.1:</p> <p>a) Develop a manual for monitoring and measuring antimicrobial use at the national level</p> <p>Activity Description: Develop a system and a manual for monitoring AMC at the national level.</p> <p>b) Assess existing systems for monitoring antibiotic use</p> <p>Activity Description: Assess existing systems for monitoring antibiotic use in Uganda to include public and private sectors, using a multisectoral approach</p>	5.4	3.2		<ul style="list-style-type: none"> ■ A web-based application was developed to enable routine collection of AMC data. Also developed was a national AMC surveillance manual. With the data collected, MTaPS is working with the NDA to publish a national AMC report and peer-reviewed publications. ■ Assessment of existing systems for monitoring AMU at the public, private, and community levels in Uganda completed. Validation of findings done through a stakeholder meeting. Feedback incorporated in a final report that is undergoing technical review.
<p>Activity 3.2.2: Strengthen pre- and in-service training to enhance HR competence in AMR</p> <ul style="list-style-type: none"> ■ Provide technical review (e.g., content review, organization support) to AMR student interest groups at medical schools working with clinical and academic mentors at various training institutions, including mentorship platforms and e-learning courses 	5.4	3.2		<ul style="list-style-type: none"> ■ MTaPS supported the NAMRSC to establish the National Student AMR Charter to bring together all university student AMR interest groups. ■ Stakeholder engagement for curricula analysis, development, and validation of the draft curricula guide for antimicrobial resistance, antimicrobial stewardship, and infection prevention and control for health training institutions in Uganda undertaken.

<ul style="list-style-type: none"> ■ With Makerere University, support at least five professional health institutions to revise curricula to incorporate content on AMR and health security in pre-service curricula ■ Write an education policy brief to the NCDC and MOES that synthesizes existing knowledge and highlights the need to incorporate AMR training into the national curriculum for pre-service training 				<ul style="list-style-type: none"> ■ Stakeholder engagement for curricula analysis, development, and validation of the education policy brief done. <p>Both draft documents are under internal technical review.</p>
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5. PROGRESS BY REGIONAL BUREAUS

A. ASIA REGIONAL BUREAU

OVERVIEW

MTaPS set out to advance pharmaceutical management systems within the Asian region by improving countries' ability to institutionalize transparent and evidence-based decision making, building capacity to use robust information to define and cost pharmaceutical coverage, and strengthening medicine regulatory capacity and pharmaceutical-sector governance.

CUMULATIVE PERFORMANCE TO DATE

MTaPS developed the roadmap for institutionalizing HTA in LMICs in consultation with global and regional HTA experts. Because of the COVID-19 pandemic, a planned dissemination workshop with Asia region experts (e.g., HTA practitioners, policy makers, academia, WHO regional experts, and other IPs) 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 contextualization of the roadmap, including updates on progress, recent experiences, and practical considerations from various settings. Based on prior work by Chootipongchaivat et al⁶ 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 HTAs in China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, and Vietnam. A literature review done in addition to the previous systematic review conducted for the HTA roadmap was done to capture recent information for the BSC. KIs were conducted with regional HTA experts to fill information gaps from the desk research. This process 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, which was published in the *International Journal of Technology Assessment in Healthcare* in July 2022. The BSC analysis was also shared as a poster presentation at the ISPOR 2021 in May 2021, HTAsiaLink Conference in October 2021, and ISPOR Asia Pacific 2022 HTA Roundtable. Additionally, a supplementary regional dissemination workshop for application of the roadmap in selected countries was conducted as a virtual pre-conference session at HTAsiaLink 2021 on October 11, 2021, which engaged over 200 participants. HTAsiaLink 2021 provided an important opportunity for feedback from regional HTA stakeholders, which informed the capacity building on RWE for HTA that was implemented in Indonesia in June-August 2022.

In PY2, MTaPS published a series of reports on ways to improve pharmaceutical benefit packages and coverage. To build the evidence base for defining and costing pharmaceutical benefits packages to inform policymaking, additional MTaPS reports reviewed existing costing tools, identified the OHT as the most

⁶ Chootipongchaivat S, et al. Factors Conducive to the Development of Health Technology Assessment in Asia: Impacts and Policy Options. Manila: World Health Organization, Regional Office for the Western Pacific. 2015

suitable, and provided tailored guidance for country stakeholders to use the OHT. Additionally, MTaPS developed a report reviewing a range of pharmaceutical pricing policies in Asia, which can be leveraged to increase affordability and access to pharmaceuticals. MTaPS also published an overview of how countries in Asia define pharmaceutical benefit packages and a guide for how to define these more effectively. In PY3, MTaPS developed and delivered two hybrid training courses for countries in the Asian region on how to use the OHT to cost pharmaceutical benefit packages. MTaPS implemented the training with participation from ministries of health and social affairs, health insurance funds, local medical associations, and other agencies from Kyrgyzstan, Bangladesh, Nepal, and Philippines.

Through a mapping exercise, MTaPS identified 18 entities that aim to strengthen different pharmaceutical regulatory functions/areas, such as registration and MA, PV, post-marketing control, and regulatory inspection. MTaPS followed up with three key networks, ASEAN, SEARN, and WHO-Western Pacific Regional Office, for potential collaboration to strengthen regulatory systems in Asia. The online capacity building course on current GMP for pharmaceutical manufacturers in active pharmaceutical ingredients and formulations for access to quality-assured medical products was hosted by the JSS Academy of Higher Education & Research in Mysuru, India, in collaboration with development partners and national stakeholders. The course was attended by 103 participants from 33 pharmaceutical companies. MTaPS planned a capacity building on the evaluation of vaccine dossier for NMRA officials from Bangladesh, Nepal, Philippines, and Vietnam. However, because of conflicting schedules for NMRA officials in the Philippines and Vietnam, the training was done only for officials from Bangladesh and Nepal, which are part of SEARN.

To promote convergence of technical standards and guidelines for medicine registration in the region, MTaPS facilitated the participation of Asian regulatory assessors in a workshop on application of good reliance practices conducted by the MTaPS partner, Center of Regulatory Excellence, Singapore. Assessors were able to obtain more knowledge on the principles of good reliance practices and application while assessing medicine dossiers before granting MA. MTaPS also assisted Bangladesh, Nepal, and Philippines in developing and implementing effective good review and interagency reliance practices based on WHO recommendations and other reference agencies in the Asian region to improve the registration system for medical products.

MTaPS, in collaboration with the WHO Division of Medicines and Health Products and other partners, developed a manual for managing COI in pharmaceutical services. The manual was developed in response to the need to improve understanding of COI in public pharmaceutical decision making and the need for guidance on preventing and managing it. The manual identifies and explains ten critical steps for strengthening COI policy, prevention, and management in public pharmaceutical decision-making committees. The approach is practical and may be adaptable to specific contexts and elaborated on as more evidence is gathered. The manual was recently published on the WHO website.

YEAR 4 ACHIEVEMENTS & RESULTS

The MTaPS-led review paper, “Exploring facilitators and barriers to introducing HTA: A systematic review,” was published in the *International Journal of Technology Assessment in Health Care*. The study aimed to identify and codify the facilitators and barriers to help IPs institutionalize HTA successfully and navigate complex systems for health-related policy making. The systematic review explored peer-

reviewed and gray literature articles examining HTA programs globally by using 6 databases, followed by a full-text review exploring articles' coverage of 27 evaluation criteria across 4 primary areas of interest: barriers/facilitators, motivations, guidelines, and institutional frameworks.

MTaPS organized the HTAsiaLink pre-conference event "HTA pathways in low- and middle-income countries (LMICs): Scaling up for sustainability of universal health coverage (UHC) in Asia" held on October 11, 2021. HTAsiaLink is a collaborative research network of HTA agencies in the Asia-Pacific region. The event featured the MTAaPS and MSH publication "A Roadmap for Systematic Priority Setting and Health Technology Assessment (HTA)," which advocates for the use of HTA in LMICs to determine the value of a health technology (e.g., a drug, medical device, diagnostic test, or medical procedure) at different points in its lifecycle. The purpose of the roadmap is to inform decision making to promote an efficient, equitable, and high-quality health system. The virtual pre-conference event was attended by 220 people from Indonesia, Philippines, Vietnam, Singapore, Taiwan, Malaysia, and other countries worldwide. Attendees included representatives from government agencies, MOHs, multilateral institutions, academic institutions, the private sector, NGOs, and others.

At the MTAaPS-organized country action planning session, countries were able to chart their own level of capacity across the following three categories: countries with non-existing HTA capacity, countries with emerging and growing HTA capacity, and countries with fully developed HTA capacity. Following the incremental adoption of HTA as outlined in the roadmap, countries highlighted specific capacity-building needs which will inform future capacity-building support in the Asia region. For instance, benefit package design and RWE would be of interest to Indonesia and the Philippines. MTAaPS developed a concept note to conduct a "deep dive" workshop to improve HTA in Asia. The main topic for the workshop will be the use of RWE to improve HTA. The topic selection was informed by the findings from the HTAsiaLink pre-conference meeting that MTAaPS hosted in Q1. MTAaPS collaborated with the World Bank, Center for Global Development, and International Decision Support Initiative 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.

After developing and delivering two trainings on how to use the OHT to cost pharmaceutical benefit packages, in PY4, MTAaPS confirmed Bangladesh's interest in receiving further support. MTAaPS conducted a refresher training on the OHT for the Bangladesh MOHFW's HEU and other MOH staff and partner agencies. The HEU decided to cost the pharmaceutical packages required for each intervention included in the Shasthyo Surokhsha Karmasuchi Social Health Protection Scheme benefits package. Separately, MTAaPS published a blog highlighting two reports that provided an overview of how countries in Asia define pharmaceutical benefit packages and a guide for how to define pharmaceutical benefit packages.

MTaPS facilitated a regional capacity-building session for evaluation of vaccine dossiers for assessors in Bangladesh and Nepal. As members of SEARN, both countries were able to exchange information, share experiences, and learn from each other with guidance from MTAaPS experts. The virtual capacity-building session that took place December 13-17, 2021, focused on evaluation of the COVID-19 vaccine dossier and was attended by 25 assessors (8 female, 17 male).

Continuing from PY3, MTaPS undertook competency mapping in Nepal, Bangladesh, and the Philippines using a workshop-based approach based on the WHO global competency framework for regulators of medical products. The mapping focused on the core and functional competencies/skills required for product evaluation (reviewers), safety monitoring (PV), inspection and enforcement (inspectors), laboratory quality control (analysts), and whether NMRA staff had these skill sets. Gaps identified will be used to develop capacity-building plans for NMRA staff to ensure adequacy in performing the regulatory duties and enhance the efficiency and effectiveness of medicine regulation with the aim of increased maturity levels for the NMRA.

The recently published manual *Managing conflicts of interest: A how-to guide for public pharmaceutical-sector committees in low- and middle-income countries* is intended for policymakers, managers, committee conveners and chairs, and those involved in oversight looking to strengthen the prevention and management of COI in key public pharmaceutical-sector committees and agencies. It focuses on public pharmaceutical committees and agencies because of the potential risks posed to the health and safety of populations from COIs that compromise the integrity of these decision-making processes and the potential impact on public budgets, out-of-pocket expenditures, and public trust in the decisions made and the health system itself.

MTaPS facilitated a meeting with the Philippines (DOH) to discuss priority activities related to the introduction of strategic procurement initiatives, namely FA and PPM). An agreement has been reached that MTaPS will support DOH in conducting a procurement policy and legal analysis to understand existing provisions and gaps and recommend plausible options to introduce FA and PPM in the country.

QUARTER 4 ACHIEVEMENTS & RESULTS

MTaPS expanded the application from the previous deep-dive workshop to improve HTA in Asia. Indonesia was selected as the first country to apply the lessons learned. In August 2022, a three-day workshop convened key stakeholders in Indonesia. Among other topics, the stakeholders developed a country action plan to apply and conduct RWE assessments in Indonesia. MTaPS is now supporting the Indonesia HTA agents, led by Universitas Gadjah Mada, to use real-world evidence from the cancer registry to calibrate the Markov Model developed to assess the cost-effectiveness of trastuzumab for early breast cancer in Indonesia. A second country for the deep-dive workshop is being identified. Further, MTaPS continued to conduct due diligence on the needs for an HTA hub in Asia. MTaPS performed the first scoping and desk review, which was presented to USAID. Following the reviews, an online survey and KIIs are planned for October 2022.

MTaPS furthered plans for applying the OHT in Bangladesh by facilitating an additional in-person training on the OHT for the HEU and other selected MOH staff and partner agencies. The outcome of this training was initial discussions with the HEU to identify interventions to be costed with the OHT, establish the costing team, and develop the implementation timeline. The HEU chose the Shasthyo Surokhsha Karmasuchi Social Health Protection Scheme benefits package for the costing exercise, which will focus on costing the pharmaceutical packages for each intervention included in the scheme.

MTaPS, in collaboration with the Philippines FDA, organized and undertook competency mapping for the FDA to identify their strengths, weaknesses, and gaps by using the WHO global competency

framework and implementation tool from July 18-22, 2022. The framework outlines recommendations for competency requirements and training needs for regulators across key regulatory functions and maturity levels defined by the WHO GBT. MTaPS continued to engage NMRAs in Nepal and Bangladesh in finalizing the competency mapping analysis and reports and held a dissemination meeting with the DDA Nepal on September 1, 2022, to disseminate the findings, gaps, and training plan from the competency mapping. MTaPS also continued to engage the DAV to plan for the competency mapping exercise and other planned regional activities.

MTaPS held a workshop on Convergence of Technical Standards for Medical Product Registration on July 27, 2022, to guide countries and orient personnel on the need for convergence of technical standards and guidelines for medicine registration. The workshop was attended by 19 regulatory staff from the NMRAs of Bangladesh and Nepal, drawn from medical product registration and other departments knowledgeable in product assessment or evaluation and having responsibility in managerial practices for decision making in product registration.

MTaPS continually engaged with the ASEAN Pharmaceutical Product Working Group (PPWG) to organize the implementation of activities identified in the work plan. Some activities are to be jointly implemented with PQM+. As such, MTaPS held several planning meetings with PQM+ to organize the implementation of a TOTs course on evaluation of biologics and vaccines planned for October 17-21, 2022.

MTaPS collaborates with WHO and other partners to develop and deliver webinars based on the how-to manual on COI recently published on the WHO website. The manual was also used as a resource document for the MTaPS Cross Bureau-funded JLN series with 20 participants of global representation.

MTaPS engaged a legal consultant and began the procurement policy and legal assessment prior to piloting strategic procurement interventions, such as FA and PPM. MTaPS also facilitated an alignment meeting with the legal consultant and DOH's Procurement Service. MTaPS will be presenting an inception report to stakeholders in October 2022. The inception presentation will ensure further mutual understanding among all stakeholders on the activities and implementation timelines.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

- In-person relationship building with local stakeholders is key for advancing projects because of easier communication and follow-up.
- In-person capacity building offers additional opportunities for informal learning and additional skill building compared to virtual capacity building alone.
- It is critical to translate documents and use local context while engaging stakeholders in non-English speaking regions to enhance communication and avoid misrepresentation.
- Strong presence and sound presentations in regional conferences proved to be a good strategy to not only showcase the results achieved and tools developed but also inform the design of future MTaPS activities and explore new opportunities to continue and expand interventions with stakeholders.

- There is an increasing perception from regulatory authorities of the need to improve the regulatory functions in line with WHO benchmarking, which provides opportunities for the regulatory system strengthening work carried out by MTaPS.
- Engaging with government counterparts at the early stage of activities, in this case, with the Philippines DOH procurement service for the procurement policy and legal analysis, promotes ownership of activities.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Activity 1.1.1: Deploy survey on interest for Asia Hub; KIs for Asia Hub; writing reports on Asia Hub survey, interviews, consultations, and potential operational plan	December 2022
Activity 2.1.1: Build capacities on the use of OHT to cost pharmaceutical benefit packages; assemble a costing team and formulate an implementation plan for Bangladesh	December 2022
Activity 3.1.1: Provide technical assistance to Asian countries to institutionalize regulatory processes and best practices in registration of medical products	December 2022
Activity 3.1.2: (year 4) Create models for adoption of global standards to support the development of regulatory IMS for electronic transmission of information in Asia	December 2022
Activity 3.2.1: (year 4) Support ASEAN PPWG's joint assessment procedures by facilitating joint review sessions for assessment of medical products	December 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	December 2022
Activity 4.1.1: Support implementation and dissemination of the how-to manual on COI; deliver webinar and training on the how-to manual on COI; develop an eLearning course based on the how-to manual on COI	December 2022
Activity 4.1.1: Conduct an assessment and analysis of the procurement policy, laws, associated rules and regulations, and other legal provisions that affect the introduction of strategic procurement interventions in one Asian country (Philippines): facilitate inception presentation; continue the analysis, conduct result dissemination and policy option development; pilot design	December 2022

Table 31. Quarter 4, FY22, Activity Progress, Asia Regional Bureau

Activity	MTaPS Objective(s)	GHSA Result(s)	MNCH Result(s)	Activity Progress
Activity 1.1.1: Deploy survey on interest for Asia Hub, Klls for Asia Hub, writing reports on Asia Hub survey, interviews, consultations, and potential operational plan	1			The survey was developed and reviewed by USAID; deployed on October 3; Klls are scheduled for Oct-Nov 2022
Activity 2.1.1: Build capacities related to using 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	1.1, 2.3, 4.1, 5.3			MTaPS conducted a training on the OHT in Bangladesh, and afterwards, the HEU decided to cost the Shasthyo Surokhsha Karmasuchi) Social Health Protection Scheme benefits package, focusing on costing the pharmaceutical packages of each intervention included in the scheme.
<p>Activity 3.1.1: Provide technical assistance to Asian countries to institutionalize regulatory processes and best practices in registration of medical products</p> <p>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</p> <p>Activity 3.2.1: (year 4) Support ASEAN PPWG’s joint assessment procedures by facilitating joint review sessions for assessment of medical products</p> <p>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</p>	2.4, 3			<p>Activity 3.1.1: Implementation plan approved by ASEAN PPWG; plan to hold the workshop with ASEAN member states (AMS) in PY 5 Q1</p> <p>Activity 3.1.2: Implementation plan developed and waiting approval from ASEAN after agreeing on maintaining confidentiality of data and information from Asian members states</p> <p>Activity 3.2.1: Workshop planned for Asian members states in October 2022</p> <p>Activity 3.2.2: Training plan for Nepal finalized; plan to assist Philippines and Bangladesh in developing training plans following the competency mapping exercise; plan to collaborate with SEARN and develop their capacity building strategy</p>
Activity 4.1.1: Support implementation and dissemination of the how-to manual on COI	1			The manual has been published. The information session to disseminate the manual will be held on October 4, 2022. The development of the eLearning module has started, and the WHO team has approved the initial scaffold and storyboards.
Activity 4.1.1: Conduct an assessment and analysis of the procurement policy, laws, associated rules and regulations, and other legal provisions that affect the introduction of strategic procurement interventions in one Asian country (Philippines)	5			Legal consultant engaged and activity has commenced; alignment meeting with DOH facilitated

B. IGAD / EAC

OVERVIEW

The EAC and IGAD are RECs in the broader eastern Africa region. The IGAD comprises eight states in the Horn of Africa (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda) and the EAC covers six partner states (Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda), with three overlapping countries: Kenya, South Sudan, and Uganda. MTaPS supports the 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 applies MTaPS' PSS approach in the two RECs to achieve results in the areas of PV and patient safety; good medicine regulatory practices, including support for local manufacturers to adhere to GRPs and standards; and AMR containment. This approach includes the use of regional-led coordination, stakeholder engagement, collaborations and partnerships, and capacity building to effect systemic change and integration.

CUMULATIVE PERFORMANCE TO DATE

Throughout the program, MTaPS has supported the IGAD and EAC Secretariats to convene quarterly meetings of the PV EWGs 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 conducted a baseline assessment of the PV system in their member countries to inform regional activities. Seventeen (nine female; eight male) regional experts drawn from the IGAD Secretariat and member states received TOT on the utilization of the harmonized, indicator-based PV assessment and monitoring tool to conduct a baseline assessment within the member states. The regional experts conducted in-country trainings of data collectors to build their capacity to understand and utilize the tool to assess 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, and a regional report developed from the findings was validated on October 7, 2021. With the support of MTaPS, the IGAD EWG-PV developed a costed work plan informed by the recommendations from the regional report.

An assessment of local manufacturers in the EAC and IGAD was conducted in 2020 to assess their capabilities to adhere to GRPs. Stakeholder forums have since been held to share the findings and build capacity of the manufacturers on adherence to GRPs and PV. MTaPS has reached approximately 760 pharmaceutical industry stakeholders through virtual webinars and stakeholder forums to build the industry's capacity on regulatory compliance. A regulatory compliance group for local manufacturers was established and operationalized with elected officials and TOR with the aim of sharing best practices, regulatory advocacy, and technical skill capacity building.

Additionally, MTaPS, in collaboration with the IGAD Secretariat, identified 94 (22 female; 72 male) IGAD/MTaPS cross-border area health facility personnel who were trained as trainers in PV. The cross-border trainings combined facility HCWs from different member states, which enhanced integration and harmonized the agenda. The health management teams within the cross-border areas were sensitized on PV and on 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. An additional 107 HCWs (23 female, 84 male) from facilities and health management teams were trained on PV and utilizing MTCs as institutional anchors for PV activities. Through this support, MTaPS has ensured that 40 facilities located along the cross-border areas of Uganda/Kenya (Amudat/West Pokot, Moroto/Turkana); Ethiopia/Kenya (Moyale); and Kenya/Somalia (Mandera) conduct and implement patient safety activities, including reporting of AEs.

MTaPS supported the NMRAs, specifically the PPB, which is the Regional Centre for 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 are evaluated and regulatory actions, including alerts or recalls, are taken.

In collaboration with the EAC Secretariat and EAC partner states, MTaPS developed and validated harmonized SOPs for the implementation of the EAC harmonized PV compendium. A draft EAC harmonized in-service PV curriculum and training packages were also developed.

In collaboration with the IGAD Secretariat, MTaPS supported the IGAD EWG-PV to develop a draft harmonized IGAD PV training curriculum and a costed work plan for PV.

YEAR 4 ACHIEVEMENTS & RESULTS

There was no work plan for PY4. However, a few PY3 activities were extended to PY4 through a no-cost extension. MTaPS engaged the PPB to boost its capacity to utilize PV data for decision making. MTaPS supported the development and implementation of targeted spontaneous reporting of AEFI as a response to the introduction of COVID-19 vaccines. Additionally, MTaPS supported coordination mechanisms for PV work by the PPB through a functional TWG on PV and PMS for which a two-year work plan was developed with technical assistance from MTaPS and PQM+. MTaPS also worked closely with the IGAD Secretariat to plan for and hold a regional Pharmaceutical Manufacturing Conference November 3–4, 2021. The conference brought together stakeholders within and beyond the IGAD region to discuss critical areas affecting local production, including:

- The impact of the COVID-19 pandemic on manufacturing and supply chains in the Horn of Africa and interventions for developing regional manufacturing and supply resilience.
- National and regional policies and trade-related challenges that affect manufacturing in the Horn of Africa and the impact of intraregional trade policy barriers on COVID-19 response at the regional level.
- Potential opportunities and strategies for market access to manufacture innovative medicines and vaccines in the Horn of Africa.
- Opportunities for local pharmaceutical production, pharmaceutical pooled procurement, and harmonized regulatory and quality standards in the IGAD region.

In collaboration with the IGAD Secretariat, MTaPS convened EWG-PV meetings to discuss the development and review of a costed work plan of activities that will improve capacity of the EWG-PV and IGAD Secretariat to support implementation of regional PV activities. Additionally, the program continually engaged local pharmaceutical industry stakeholders on sustaining regulatory compliance and held a stakeholder forum on March 17, 2022, attended by 24 (10 female; 14 male) industry stakeholders within the EAC and IGAD. A compliance group was officially adopted, and officials identified to coordinate its functions. The compliance group will function as a technical exchange network/platform to share best practices and lessons learned, collaborate on activities to advocate for a balanced regulatory environment, build capacity on regulatory aspects and PV, and improve technical skills in general.

In collaboration with the IGAD Secretariat, MTaPS also convened EWG meetings on April 7 and 20, 2022, to review and finalize the draft harmonized in-service PV curriculum. MTaPS and the IGAD Secretariat convened a closeout meeting with the PPB, as the regional lead country and center of excellence in PV, on May 11, 2022. The meeting was attended by USAID and other partners, including PQM+. Attendees reviewed activities supported and implemented through regional support and their impact within the member states.

MTaPS held another closeout meeting with USAID on May 19, 2022, to highlight the progress made and achievements of the IGAD portfolio. This meeting was attended by USAID and the IGAD Secretariat.

QUARTER 4 ACHIEVEMENTS & RESULTS

There are no Quarter 4 achievements and results to report because IGAD and EAC work plan activities were closed on May 19, 2022.

QUARTER 4 BEST PRACTICES/LESSONS LEARNED

Not applicable.

ACTIVITIES & EVENTS FOR NEXT QUARTER

Not applicable.

6. PROGRESS IN ACHIEVING CONTRACT DELIVERABLES

Table 32. Quarter 4 Year 4 and Year 4 Progress in Achieving Contract Deliverables

CONTRACTUAL DELIVERABLE	DUE DATE	SUBMISSION DATE	COMMENTS
Annual Work Plans	8/31/22	8/29/22	
Quarterly Performance Report – PY4 Quarter 3	7/31/22	7/29/22	
Quarterly Performance Report – PY4 Quarter 2	4/30/22	4/29/22	
Subcontract Reporting (eSRS)	4/30/22	4/27/22	
Reporting of Foreign Taxes	4/16/22	4/12/22	
Quarterly Performance Report – PY4 Quarter 1	2/28/22	1/28/22	The deadline for the PY4 Q1 report was revised to 2/28/22 per correspondence with Mr. Imran Mahmud on 2/22/21. MSH submitted the report one month in advance of the agreed-upon submission date.
Environmental Mitigation and Monitoring Report	12/15/21	12/10/21	The deadline for the EMMR was revised to 12/15/21 per correspondence with Mr. Imran Mahmud on 11/23/21.
Quarterly Performance Report – PY3 Quarter 4 and Year 4 Annual Report	11/12/21	11/12/21	The deadline for the PY3 Q4 and year 4 report was revised to 11/12/21 per correspondence with Mr. Imran Mahmud on 10/29/21.
Subcontract Reporting (eSRS)	10/30/21	10/29/21	
Annual Report of Government Property in Contractor’s Custody	N/A – annual submission	10/22/21	There is no specified deadline in the contract. Annual reporting is required, so MSH submits the report by 10/31 each year.

7. PROGRAM SPOTLIGHT

IMPROVING MNCH MEDICINE REGISTRATION IN MOZAMBIQUE

UGANDA'S KIWOKO HOSPITAL: A CATALYST FOR INFECTION PREVENTION AND ANTIMICROBIAL RESISTANCE PROGRESS

USAID ASSISTANCE BOOSTS MBOUDA HOSPITAL'S BEST PRACTICES IN INFECTION PREVENTION AND CONTROL



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

SUCCESS STORY

Improving MNCH Medicine Registration in Mozambique

Registration of medicines is essential for safe, efficacious, and quality assured medical products, including for maternal, newborn, and child health (MNCH). A study conducted by USAID MTaPS on the registration process for select MNCH medicines in Mozambique noted several challenges. MTaPS assisted the country's medical regulatory agency in hosting a workshop to address the findings of that study.



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.

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Registration of medicines is an essential task of national regulatory agencies as they work to authorize medical products entering the market and ensure that they are safe, efficacious, and quality assured, including for maternal, newborn, and child health (MNCH). Mozambique has made significant progress in recent years to strengthen its pharmaceutical system and improve access to life-saving medicines with a new medicine law regulating medical products and a semi-autonomous national regulatory agency, the Autoridade Nacional Reguladora de Medicamentos de Moçambique (ANARME).

A study conducted by USAID MTaPS on the registration process for select MNCH medicines in Mozambique and eight other countries noted several challenges. The study identified barriers such as limited reliance on other national regulatory authorities' decisions, registration of MNCH medicines not being prioritized, and registration procedures not streamlined. In addition, some essential MNCH medicines were not registered. MTaPS supported ANARME to develop a set of recommendations to address these barriers and engaged key stakeholders to set up a dialog on improvements.

Creating a Dialogue Between Key Stakeholders

MTaPS assisted the ANARME in hosting a workshop on April 21, 2022, in Maputo, to address the observations from the study on the status of MNCH medicine registration and registration processes. The workshop brought together 70 participants, including staff from the ANARME registration unit and representatives from medical product manufacturers, importers, and distributors in Mozambique.

Regulators outlined the ANARME registration procedures and highlighted the importance of the process for ensuring the quality and safety of medicines. The manufacturers discussed the challenges they experience when registering their products, particularly MNCH products. The exchange led to suggestions for improved medicines registration.

Of particular note, the challenge with oxytocin—a life-saving medicine for pregnant women—was highlighted. There are only two registered brands of oxytocin in Mozambique, potentially leaving the market vulnerable to supply chain shocks. Neither brand is prequalified by the World Health Organization, which raises questions about quality. The importance of considering labeling of oxytocin for refrigerated storage as part of the registration process was emphasized to avoid confusion among health workers regarding the required storage conditions. If oxytocin is not properly stored in cold chain, it may degrade, resulting in poor quality and diminished effectiveness.

What's Next

The rich exchanges allowed the representatives from medical product manufacturers, importers, and distributors in Mozambique who apply for marketing authorization for their products, to gain a better understanding of the current ANARME registration process. In turn, the regulators gained a better understanding of the bottlenecks experienced by applicants when submitting their products for market authorization and the steps needed to streamline the registration process and prioritize the registration of RMNCH medical products.

The workshop provided a forum for the stakeholders in the registration process to discuss how to streamline the process and prioritize registration of maternal, newborn, and child health (MNCH) medicines.

The ANARME plans to conduct a survey of stakeholders to identify areas for service improvement and has committed to holding more frequent meetings with applicants to improve communication and ease bottlenecks in processing market authorizations by clarifying regulatory requirements. Further, recommendations made in the workshop will be considered in the upcoming revision of the ANARME's registration guidelines.



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

SUCCESS STORY

Antimicrobial resistance (AMR) is a leading cause of death, spurred in part by overuse and misuse of antimicrobial medicines. Uganda is no exception to this reality. With technical support from the USAID MTaPS Program, Kiwoko Hospital has undertaken a range of activities to combat AMR and strengthen AMS and governance.

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.

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Uganda's Kiwoko Hospital: A Catalyst for Infection Prevention and Antimicrobial Resistance Progress



Photo Credit: JP Waswa,

Marion Murungi, MTaPS Senior Technical Advisor, facilitating a training session for the DTC to improve antimicrobial stewardship in Kiwoko Hospital

Antimicrobial resistance (AMR) is a leading cause of death, spurred in part by overuse and misuse of antimicrobial medicines. A study on antimicrobial use in Uganda found several issues, such as high use of antibiotics across all health facilities, including parenteral antibiotics at 88%, and low compliance to Uganda's clinical guidelines (30.1%).

Providing safe, responsive, and high-quality health care is at the heart of the mission of Kiwoko Hospital, a private community facility in the Central Region of Uganda. Administered by the Church of Uganda through the Uganda Protestant Medical Bureau, Kiwoko Hospital is the largest health facility in the three districts of Luwero, Nakaseke, and Nakasongola, with a bed capacity of 204 and employing almost 400 personnel. The hospital was formally established in 1991 to respond to the community's health needs following many years of civil war and the HIV epidemic.

Now, faced with rising AMR and a lack of protocols for infection prevention and control (IPC), Kiwoko Hospital must respond to emerging resistant bacteria and prevent the spread of resistant infections. The US Agency for International Development (USAID) Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program has provided Kiwoko Hospital with technical assistance (training, mentorship, support supervision, and continuous quality improvement plans) and management support (application of the project

management cycles and global evidence-based practices and recommendations) in IPC and antimicrobial stewardship (AMS) practices and structures.

Rising to Meet the Challenge of IPC

With support from MTaPS, the hospital developed clear program objectives and outcomes for IPC to improve patient and health worker safety by reducing hospital-acquired infections. Recognizing the need for gradual program implementation guided by available resources and baseline assessment data, the hospital initially implemented a hand hygiene program that identified “hygiene champions” among hospital staff; developed skills on cleaning, sterilization, and disinfection; and fostered a culture of why areas need to be cleaned. In addition, the hospital increased the number of handwashing facilities to include all entry and exit points. Monitoring feedback is provided quarterly to hospital departments, with an award given to the department with the best performance in hand hygiene. Notably, findings of an assessment conducted indicated that Kiwoko Hospital had the highest distribution of hand hygiene facilities in MTaPS-supported health centers in Uganda. Now, as a matter of hospital policy, IPC is incorporated into the standing agenda of departmental meetings, and regular reporting and updates are submitted to the hospital administration to understand progress and challenges related to IPC program implementation.

Combatting AMR through antimicrobial stewardship (AMS)

With MTaPS’ technical support, Kiwoko Hospital has undertaken range of activities to combat AMR and strengthen AMS and governance, including institutionalizing quality improvement teams and reconstituting and repurposing the Drug and Therapeutic Committee into the Medicines and Therapeutic Committee (DTC), with representation from all departments. In addition, regular knowledge exchanges and daily staff meetings to review clinical practice and discuss topical issues on drugs, conditions, and their

With support from MTaPS, nine continuing medical education activities have been conducted over the past 18 months, reaching 335 health workers (55% female). As a result, health workers’ knowledge on IPC and hand hygiene has improved by 58%.

management have supported timely communication and exchange.

Additional trainings on the use of AMS surveillance data have enabled the hospital AMS team to understand the drivers of antibiotic misuse. Ongoing involvement and engagement of the hospital administration has resulted in representation of the facility MTC during the annual facility budgeting process with a budgetary allocation and institutionalization of the MTC in the hospital human resources manual.

Conclusion

Building on Kiwoko Hospital’s long-standing commitment to providing safe and high-quality health services, MTaPS has provided technical support to improve its IPC and AMS practices and structures. A key next step is strengthening community awareness to reduce over-the-counter access to prescription medicines and engaging communities in efforts related to AMR control. In addition, the hospital’s IPC and AMR committees can begin implementing annual IPC plans, maintain evidence-based practices, and support monitoring and evaluation. Kiwoko Hospital can cascade best practices and lessons learned from the partnership with MTaPS to other lower-level health facilities.

“One of the things that is in place because of MTaPS is motivated staff, the functional committees, proper assessment and monitoring practices and support supervision which has been bred into us a sense of accountability.”

- Dr. James Nyonyintono, Clinical Programs Manager



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

USAID assistance boosts Mbouda Hospital's best practices in infection prevention and control



Mr. Gnitedem exhibiting the certificate of the second cleanest health facility in the West region. Photo credit: Mr. Acho, MTaPS

Mbouda Hospital, one of the district hospitals in the West region of Cameroon, has been struggling with poor infection prevention and control (IPC) practices for years. Indeed, Cameroon's 2017 report on the World Health Organization's (WHO) Joint External Evaluation on International Health Regulations core capacity revealed that the country had little to no capacity in IPC.

To assess the magnitude of the issues, the Ministry of Public Health (MOH), with the financial and technical support of USAID through its implementing partner, Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program and WHO, assessed IPC practices in some health facilities. The assessment revealed that the absence of trained and dedicated IPC staff in health facilities was one of the obstacles to the effective implementation of IPC practices.

Mbouda Hospital was one of those facilities assessed. Through MTaPS, USAID supported IPC training for the hospital staff. Mr. Gnitedem, the principal nurse, became an IPC champion who consistently challenges his colleagues to improve IPC best practices. The hospital is now very clean with hand washing stations in the numerous services.

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.

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It also attracts more clients who find it a welcoming hospital. In November 2021, Mbouda Hospital received the second prize of the cleanest facilities in the West region. Mr. Gnitedem said, “Before USAID’s support, we did not think that IPC was important, and it was common to find trash everywhere inside and outside the hospital, creating a breeding ground for mosquitoes, and we were not giving a lot of importance to hand hygiene. You opened our eyes, and you made us become leaders in IPC.”

The USAID assistance was possible thanks to Global Health Security Agenda (GHSA) funding, which helps the beneficiary countries be well prepared to prevent, detect, and respond to infectious threats. As part of the GHSA work, MTaPS’ support is aimed at building capacities of countries to contain antimicrobial resistance.



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8. MONITORING, EVALUATION, RESEARCH, & LEARNING

A. MONITORING & EVALUATION

YEAR 4 ACHIEVEMENTS & RESULTS

DATA MANAGEMENT SYSTEM

In PY4, the DevResults data management system was launched. All staff received mandatory training conducted by the MERL HQ team on the Data Management SOP and how to use and enter data into DevResults. The MERL HQ team entered historical project data in DevResults, and country teams began quarterly data entry. The MERL HQ team also undertook a data quality verification exercise in which all indicators and associated targets in DevResults were reviewed for completeness and accuracy.

MTaPS also successfully transitioned COVID-19 indicators to DevResults. Historical COVID-19 data was uploaded to DevResults, and the SOP for routine data collection and reporting was updated. COVID-19 indicators are now reported in DIS and also stored in DevResults. MTaPS generated country reports monitoring and evaluating COVID-19 activity progress and updated technical summaries to share the role MTaPS played in the COVID-19 response.

DATA DASHBOARDS

With the launch of DevResults, data dashboards were created. The MERL HQ team, in collaboration with MSH SI and Deloitte Data Analytics teams, explored how to supplement the DevResults dashboards with additional interactive Power BI dashboards. The MERL HQ team collected use cases for the dashboards from a range of internal stakeholders, including technical leads, country directors, senior managers, portfolio managers, and the SMT. The MERL HQ team then partnered with Deloitte to build the Power BI dashboards and ultimately finalized and launched the dashboards for MTaPS use.

DATA QUALITY

In PY4, the MERL HQ team took measures to ensure MTaPS project data quality. In addition to implementing DevResults, the MERL HQ team oriented staff to the Data Quality SOP developed in PY3 and the associated implementation plan. During Q1 of PY4, MTaPS implemented the COVID-19 DQA recommendations and further developed resources to strengthen MTaPS' data management and reporting system. It was also determined that MTaPS would conduct a larger DQA for field support and GHSA indicators.

The MERL HQ team developed an implementation plan to conduct the MTaPS DQA. Based on selection criteria, indicators were selected, and six countries were identified for implementation, including Bangladesh, the Philippines, Kenya, Tanzania, Burkina Faso, and Mali. A comprehensive tool was adapted from the MSH and MEASURE Evaluation DQA tools.⁷ The MERL HQ team undertook a consultant selection process, provided trainings for the consultant, and launched the implementation of the DQA.

⁷ <https://www.measureevaluation.org/tools/data-quality.html>

QUARTER 4 PROGRESS

DEVRESULTS DATA DASHBOARDS

The MERL HQ team finalized the interactive Power BI dashboards and made them accessible to all MTaPS staff through DevResults. 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 held several trainings to familiarize MTaPS staff with the dashboards and use cases for the dashboards. The MERL HQ team also held a dashboard demonstration for USAID COR. The MERL HQ team will continue to conduct data verifications and update the dashboards with new data.

COVID-19 IN-COUNTRY ACTIVITY REPORTS

MTaPS continues to engage 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 also continue to collect data to track the implementation and progress of MTaPS' COVID-19 activities. MTaPS has generated over 100 country reports since PY3 as part of monitoring and evaluating COVID-19 activity progress, including the number of health care workers who received COVID-19 training and facilities in compliance with COVID-19 IPC guidelines.

DATA QUALITY ASSURANCE (DQA) AUDIT

In Quarter 4, the MERL HQ team finalized the selection of a consultant to implement the DQA in 6 countries, including Bangladesh, the Philippines, Kenya, Tanzania, Burkina Faso, and Mali. MERL points of contact in each country conducted outreach to facilities and Ministries of Health, and indicator data sources were refined. The consultant team was provided trainings by MERL HQ and have begun implementation of DQA activities.

The MTaPS DQA aims to identify areas to improve MTaPS' data quality and the system producing these 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.

DATA FOR DECISION-MAKING

The MERL HQ team continues to encourage data use for decision-making within MTaPS. Key strategies are in place to ensure that high-quality, complete, and relevant data are available for decision-making. Data dashboards are in place to ensure easy access to data for interpretation. A presentation by MERL HQ provided colleagues with the importance of using data and examples of data use. In the next quarter, the MERL HQ team will continue to identify capacity-building activities for evidence-based decision-making and encourage country teams to share their experiences with data use for decision-making through Knowledge Exchange activities.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Complete DQA in six countries: The DQA consultant will complete DQA activities, provide a final report and conduct final presentations of findings and recommendations from all six countries.	December 2022
Training and capacity building: Provide training in data use for decision-making, data quality, and general monitoring and evaluation activities.	December 2022
Routine data collection, reporting, data quality assurance, data visualization activities	December 2022

B. KNOWLEDGE MANAGEMENT

YEAR 4 ACHIEVEMENTS & RESULTS

In PY4, MTaPS drafted 16 briefs for the purpose of sharing PSS implementation knowledge and experience. Additionally, MTaPS conducted 20 PSS in Practice Knowledge Exchange sessions to share interventions that worked, results thereof, implementation challenges and mitigating actions, lessons learned, and recommendations from the interventions.

QUARTER 4 PROGRESS

MTAPS PSS IN PRACTICE KNOWLEDGE EXCHANGE

Subnational Procurement Practices of Maternal, Newborn and Child Health Medicines in Nepal.

On August 2, 2022, Baburam Humagain, Principal Technical Advisor, MTaPS/Nepal, and Jane Briggs, Senior Principal Technical Advisor, MTaPS, presented the findings of an MTaPS study in Nepal on the procurement standards and practices used by the subnational government and strategies that the government is adopting as a result to improve subnational procurement and ensure the quality of MNCH medicines in Nepal.

Infection Prevention and Control (IPC) Approaches in Côte d'Ivoire. On August 9, 2022, Ange-Fulgence Ouffoue, Senior Technical Advisor for IPC, MTaPS/Côte d'Ivoire, presented on how Côte d'Ivoire progressed from a level 1 JEE score for IPC in December 2016 to approximately a level 4 score in 2022 with the support of MTaPS.

Making Capacity Building Sustainable: Essential Elements of Successful eLearning Course Design. On August 10, 2022, Andrew Brown, PhD, MTaPS Senior Principal Technical Advisor, and Dr. I Made Subagiarta, MTaPS Senior Technical Advisor, shared essential elements of successful eLearning course design, including some best practices for making capacity building sustainable.

Regulatory Harmonization and Pharmacovigilance in the Intergovernmental Authority on Development (IGAD) and the East African Community (EAC): Successes and Lessons Learned.

On August 16, 2022, Dr. Ndinda Kusu, Country Project Director, MTaPS/Kenya, and Vivian Rakuomi, Senior Technical Advisor, MTaPS/Kenya, reflected on the successes and lessons learned from MTaPS' implementation of capacity building interventions in the IGAD and EAC.

Infection Prevention and Control (IPC) in Nigeria. On August 30, 2022, Dr. Chinemerem Daniel Onwuliri, Senior Technical Advisor, MTaPS/Nigeria, presented on the evolution of the IPC landscape in Nigeria, detailing the strides made by the MTaPS/Nigeria team in the implementation of IPC activities at the national and subnational levels.

Strengthening Pharmaceutical System Stewardship and Partner Support Coordination in the Democratic Republic of Congo. On September 6, 2022, Robert Tuala, Country Project Director, MTaPS/DRC, presented on DRC's experience regarding the coordination of partners and government counterparts to improve the supply chain of health products, with a focus on the provincial and operational levels.

Revision and Operationalization of Ethiopia's National AMR Strategic Plan: MTaPS' Role and Contribution. On September 13, 2022, Workineh Getahun, Senior Technical Advisor, MTaPS/Ethiopia, presented on MTaPS' contributions to the development and operationalization of Ethiopia's National AMR Strategic Plan.

Containing Antimicrobial Resistance in Kenya by Strengthening Systems for Multisectoral Coordination, Infection Prevention and Control, and Antimicrobial Stewardship. On September 20, 2022, Dr. Nkatha Gitonga, Senior Technical Advisor for AMS, MTaPS/Kenya, and Helen Wangai, Technical Advisor for IPC, MTaPS/Kenya, presented on lessons learned from systems strengthening interventions for combatting AMR.

TECHNICAL DOCUMENTATION

Advancing RSS. MTaPS addressed USAID feedback and is awaiting approval of revisions to finalize the technical program update.

Building Capacity to Assess Bioequivalence Studies for MNCH Medicines in Mozambique. MTaPS drafted a technical highlight on capacity building through virtual training on assessment of bioequivalences studies for MNCH generic medicines for marketing authorization in Mozambique.

Business Plan for Rwanda Food and Drugs Authority. MTaPS finalized a technical brief on its support to the Rwanda FDA's business plan development, lessons learned from the activity, and recommendations for future implementation.

Capacity Building Initiatives for the e-TB Manager System Implementation in Bangladesh. MTaPS drafted a technical highlight on training of more than 2,200 new users on e-TB Manager to capture information of individual TB patients, 500 refresher trainings, hands-on exercises to reinforce learning, and building capacity in a complex logistical setting.

Combating AMR by Strengthening Human Resource Capacity through Pre-Service Training in Mali. MTaPS drafted a lessons-learned report on establishment of DTCs, implementing training and monitoring activities, implementing action plans, and conducting supervisory visits to health facilities to strengthen DTC capacity.

Critical Success Factors for an Effective National IPC Program in Ethiopia. MTaPS drafted a technical brief on strengthening IPC at the national level in Ethiopia, including development of an action plan, building capacity of government stakeholders, and optimizing effective implementation of AMS programs in Ethiopia.

EVD Preparedness and Response in Southwestern Uganda. MTaPS revised a technical brief on its work conducting a situational analysis of IPC adherence and standards in high-risk districts, assessing laboratory needs and capacities, training HCWs, and conducting PV workshops.

Fighting Antimicrobial Resistance by Strengthening Drug and Therapeutics Committees (DTCs) in Burkina Faso. MTaPS drafted a technical highlight on its support to DTC establishment and member installation in regional hospitals, teaching hospitals, and district centers; training on AMS workshops; and identification of priorities and agenda setting.

Infection Prevention and Control Interventions in Targeted Health Facilities in Cameroon. MTaPS drafted a technical brief on IPC activities, including a baseline assessment of health facilities in four regions of Cameroon, TOTs, establishment of IPC committees, support to national counterparts, collaboration with stakeholders, development of national guidelines, and quality improvement activities.

MTaPS Technical Approach Brief: OneHealth Tool. MTaPS drafted a technical approach brief on use of the OH tool for use and applications of the software, trainings held, health costing of the Shasthyo Surokhsha Karmasuchi Social Health Protection Scheme benefits package in Bangladesh, and recommendations for future use.

Strengthening Antimicrobial Stewardship in Health Care Facilities in Nigeria. MTaPS drafted a technical brief on its role in capacity strengthening and establishment of AMS programs to ensure that AMS interventions are effective, sustainable, and coordinated by facilities.

Strengthening Antimicrobial Stewardship (AMS) in Tanzania. MTaPS drafted a technical brief on strengthening AMS governance, capacity, and services at the national and health facility levels.

Supporting Multisectoral Collaboration in IPC and AMS in Côte d'Ivoire. MTaPS drafted a technical brief on activities for strengthening governance, contributing to national policy, validating training modules on IPC and AMS, supporting activity packages, facilitating eLearning, building the capacity of HCPs, and increasing awareness through social and behavioral change programs.

Supporting Uganda's Progress on the JEE 2 IHR Benchmark Indicators. MTaPS drafted a technical brief on supporting capacity building for MSC, IPC, and AMS; strengthening leadership for AMR at the national level; assessing and monitoring progress in the three areas; and quality improvement.

MISCELLANEOUS ACTIVITIES

Reviewed KM section of PY5 work plans for the following portfolios: Asia Bureau, Bangladesh, Jordan, Philippines, Burkina Faso, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Mali, Senegal, Kenya, Mozambique, Nigeria, Ethiopia, Tanzania, Uganda, and Rwanda.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
MTaPS PSS in Practice Knowledge Exchanges	October – December 2022
Technical Documentation	October – December 2022

C. LEARNING

YEAR 4 ACHIEVEMENTS & RESULTS

During Year 4 of the program, MTaPS updated and launched a program-wide Global and Country-focused Learning Agenda, after consultation with country teams and learning leads. At the midpoint of Year 4, MTaPS conducted a prioritization of the learning agenda to ensure that the most relevant learning questions would be answered before the end of the program. MTaPS mapped the prioritized learning questions to program objectives, expected results, and the USAID Health System Strengthening (HSS) 2030 learning agenda.

Throughout Year 4, MTaPS answered the following learning questions:

- 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: Road map 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?

QUARTER 4 PROGRESS

- Hosted check-ins with learning agenda leads to maintain accountability for both PY4 and PY5 learning products
- Reviewed the Learning sections of PY5 work plans for the following portfolios: Asia Bureau, Bangladesh, Jordan, the Philippines, Burkina Faso, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, Mali, Senegal, Kenya, Mozambique, Nigeria, Ethiopia, Tanzania, Uganda, Rwanda, and Kenya
- Discussed capacity building initiatives for learning in-country through short-term technical assistance

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Country teams will continue to develop PY5 learning products according to the PY4/PY5 learning agenda workplan	October – December 2022
The HQ MERL team will continue to have regular check-ins with learning leads to ensure product development	October – December 2022

D. RESEARCH

YEAR 4 ACHIEVEMENTS & RESULTS

This year, MTaPS submitted a total of 36 conference abstracts to 8 global conferences and published 4 peer-reviewed publications, helping to advance the global learning agenda on PSS.

QUARTER 4 PROGRESS

This quarter, MTaPS began preparation for its participation in 2 global meetings: American Public Health Association Annual Meeting and Expo, scheduled for November 6–9, 2022, in Boston, and People that Deliver Global Indaba, scheduled for October 12–13, 2022, in Lusaka, Zambia. MTaPS also gave an invited talk and oral presentation at the World AMR Congress/Disease Prevention and Control Summit, held September 7–8 in Maryland. The various MTaPS presentations and posters are listed below.

American Public Health Association Annual Meeting and Expo

- Uptake and integration of the WHO AWaRe categorization of antibiotics in national AMS documents in LMICs: experiences from five countries
- Strengthening IPC to enhance preparedness and response for COVID-19 emergencies in Ethiopia
- Strengthening IPC to reduce vulnerabilities to emerging and re-emerging infectious diseases—the case of Ethiopia
- CQI of IPC 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
- PSS Insight v2.0—a framework and indicators for measuring PSS
- Strengthening health care workers’ capacity in the use of an electronic reporting system to improve tuberculosis management in Bangladesh

People that Deliver Global Indaba

- Outcome of competency mapping in national regulatory authorities in selected Asian countries
- Implementation of GSDP among wholesalers in Nepal
- Implementation of GPP in private and public sector pharmacies in Nepal
- No passport required: Reimagining technical assistance in a changing world
- PSS— How to strengthen this key subsystem of the health system
- PSCM Local Technical Assistance Providers Scheme (LTAPS) for local government units in the Philippines
- American Public Health Association Annual Meeting and Expo

World AMR Congress/Disease Prevention and Control Summit

- Effective multisectoral coordination on AMR: Experiences and lessons from 13 countries
- AMS-related policies and regulations: Findings from rapid situational analyses from 7 LMICs in Africa

This quarter, MTaPS also submitted 4 abstracts to the HTAsiaLink Annual Conference scheduled for November 30–December 2, 2022, in Thailand:

- Application of MCDA using an analytical hierarchy process (AHP) approach in weighting the HTA topic selection criteria in Indonesia
- Eliciting value for HTA topic selection criteria in Indonesia using Delphi method and deliberative processes
- Improving HTA adoption and widening stakeholder support using MCDA and RWE
- Exploring the need for a health technology assessment hub in Asia: an opportunity for countries to leverage regional collaboration to advance HTA in their own settings

Additionally, MTaPS submitted four abstracts to the International Maternal Newborn Health Conference scheduled for May 8–11, 2023, in South Africa:

- Leveraging civil society to improve access to and appropriate use of quality MNCH medicines
- Forecasting of select reproductive, MNCH medical products
- Improving access to MNCH medical products in LMICs: A mapping of registration of MNCH medical products in 9 countries
- Improving subnational procurement practices of MNCH products in Nepal

An MTaPS poster entitled, *Auditable Pharmaceutical Transactions and Services (APTS)—Systems Approach for Sustainably Improving Pharmaceutical Management in Ethiopia*, was selected as one of three winners of the 2022 USAID Health Systems Strengthening Case Competition. MTaPS will present the case at USAID’s showcase event in October 2022.

In Nepal, the team is developing a manuscript based on an assessment of GPP in public and private pharmacies. The team is also developing another manuscript on GSDP among wholesalers in Nepal. The GHSA team developed a manuscript entitled *Moving from Assessments to Implementation: Promising Practices for Strengthening Multisectoral Antimicrobial Resistance Containment Capacity*, which it is revising to resubmit for peer review. The MTaPS COVID-19 costing work group is also developing a manuscript entitled *Insights to COVID-19 Vaccine Delivery: Survey Results from 21 Countries* to report on their analysis of country-level data they collected through two surveys exploring global experiences with vaccine rollout.

ACTIVITIES & EVENTS FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE
Finalize preparation and participate in the American Public Health Association Annual Meeting and Expo and People that Deliver Global Indaba	October – November 2022
Participate in USAID Health Systems Strengthening Case Competition	October 2022
Finalize and submit the four pending manuscripts for peer review	December 2022

ANNEXES

ANNEX I: MTAPS INDICATORS

Annex Table I: MTaPS Performance Indicator Tracking Table

Code	Performance Indicator	Reporting Frequency	Baseline Value	PY2 Result	PY3 Result	PY4Q1 Result ⁸	PY4Q2 Result	PY4Q3 Result	PY4Q4 Result	PY4 Cumulative Result
GH-IO 1	Has the country developed policies for prescription of access-, watch- or reserve-class of antibiotics according to AWARe categorization? (yes/no)	Annually	0/12	4/12	5/12		5/12			5/12
	<i>Bangladesh</i>		No	Yes	Yes		Yes		Yes	
	<i>Burkina Faso</i>		No	No	Yes		No		No	
	<i>Cameroon</i>		No	No	No		No		No	
	<i>Cote d'Ivoire</i>		No	No	No		No		No	
	<i>DRC</i>		No	Yes	Yes		Yes		Yes	
	<i>Ethiopia</i>		No	No	No		Yes		Yes	
	<i>Kenya</i>		No	No	No		No		No	
	<i>Mali</i>		No	No	No		No		No	
	<i>Mozambique</i>		No	No	No		No		No	
	<i>Nigeria</i>		No	No	No		No		No	
	<i>Senegal</i>		No	Yes	Yes		Yes		Yes	
<i>Tanzania</i>	No	Yes	Yes		Yes		Yes			
GH-IO 2	Has the country implemented WHO AWARe categories? (yes/no)	Annually	1/12	3/12	8/12		7/12			7/12
	<i>Bangladesh</i>		Yes	Yes	Yes		Yes		Yes	

⁸ N/A and data not reported means the country did not have planned activities for the reporting period

	Burkina Faso		No	No	Yes	Yes	Yes
	Cameroon		No	No	No	No	No
	Cote d'Ivoire		No	No	No	No	No
	DRC		No	Yes	Yes	Yes	Yes
	Ethiopia		No	No	Yes	Yes	Yes
	Kenya		No	No	Yes	Yes	Yes
	Mali		No	No	Yes	No	No
	Mozambique		No	No	No	No	No
	Nigeria		No	No	No	No	No
	Senegal		No	No	Yes	Yes	Yes
	Tanzania		No	Yes	Yes	Yes	Yes
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	N/A	N/A
IO.4	Has the country's regulatory system increased its score since the last WHO global regulatory benchmarking assessment in at least one regulatory function? (yes/no)	Annually	0	N/A	N/A	N/A	N/A
	Nepal		Yes	Yes	Yes	N/A	N/A
MNCH 1	# of countries participating in the dissemination of the regulation guidelines for medical devices	Annually	0	0	0	N/A	N/A
MNCH 2	# of MNCH medical devices included in the guidelines	Annually	0	0	0	N/A	N/A
MNCH 3	# of stakeholders from regulatory authorities and manufacturers of oxygen participating in the dissemination and adoption of the	Annually	0	0	0	N/A	N/A

	oxygen regulatory framework						
MNCH 4	# of oxygen manufacturers committed to addressing weaknesses identified	Annually	0	0	0	N/A	N/A
MNCH 6	# of countries using the RMNCH forecasting supplement	Annually	0	N/A	5	8	8
MNCH 9	# of best practices identified and documented on elements of pharmaceutical management in social accountability MNCH interventions from the literature	Annually	0	3	N/A	N/A	N/A
MNCH 10	# of MTaPS-supported NMRAs implementing improved registration practices relevant for MNCH medical products	Annually	0	1	N/A	1	1
MNCH 12	# of quality-assured MNCH products registered in selected country	Semi-Annually	0	N/A	N/A	123	N/A
MNCH 13	# of countries supported to implement decentralized procurement systems	Semi-Annually	0	1	N/A	1	0
MNCH 21	# of quantification guidance documents developed	Annual	0	0	0	5	5
MT 1.1.1	# of entities that have clarified roles and responsibilities in pharmaceutical systems and made information publicly	Annually	0	3	7	6	6

	available with MTaPS support						
	<i>Bangladesh</i>		0	2	1	2	2
	<i>Indonesia</i>		0	N/A	2	N/A	N/A
	<i>Jordan</i>		0	0	0	3	3
	<i>Nepal</i>		0	0	0	N/A	N/A
	<i>Rwanda</i>		0	1	4	1	1
	<i>IGAD</i>		0	0	4	N/A	N/A
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	17	17
	<i>DRC MNCH</i>		0	0	29	17	17
MT 1.1.3	% of MTaPS-supported decision making entities that have publicly available guidelines for key elements of pharmaceutical management operations	Annually	0	N/A	100% (2/2)	0%	0%
	<i>IGAD</i>		0	N/A	100% (2/2)	N/A	N/A
	<i>Mali</i>		0	N/A	N/A	0% (0/1)	0% (0/1)
MT 1.2.1	# of pharmaceutical sector-related policy, legislation, regulation, or operational documents developed or updated with technical assistance from MTaPS	Annually	0	31	30	20	20
	<i>Asia Bureau</i>		0	0	1	4	4
	<i>Bangladesh</i>		0	2	2	5	5
	<i>Burkina Faso PV</i>		0	1	0	N/A	N/A
	<i>Cross Bureau</i>		0	N/A	N/A	1	1

	Global MNCH		0	1	0	N/A			N/A	
	Indonesia		0	N/A	0	N/A			N/A	
	Jordan		0	0	0	0			0	
	Mali MNCH		0	N/A	N/A	1			1	
	Mozambique		0	1	2	N/A			N/A	
	Nepal		0	N/A	3	6			6	
	Philippines		0	0	3	1			1	
	Rwanda		0	26	17	0			0	
	Tanzania PEPFAR		0	N/A	2	2			2	
PP I.1.1	# of policies and plans developed, enhanced or implemented to improve service delivery governance and regulation due to MTaPS support	Annually	0	2	3	1			1	
PP I.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	641	1,231	1,872
MT I.2.2	# of pharmaceutical regulatory enforcement mechanisms established or strengthened with MTaPS support	Semi-annually	0	0	5	6			2	8
	Global MNCH		0	N/A	0	N/A			N/A	N/A
	Mozambique		0	0	2	N/A			N/A	N/A
	Rwanda		0	0	2	6			2	8
	Tanzania PEPFAR		0	N/A	1	N/A			N/A	N/A
MT I.2.3	% of established pharmaceutical regulatory enforcement mechanisms that are functional	Semi-annually			88% (15/17)	82% (9/11)			75% (3/4)	80% (12/15)
	Bangladesh		100% (2/2)	Data not reported	100% (8/8)	100% (2/2)			100% (2/2)	100% (2/2)
	Mozambique		0%	22% (2/9)	67% (2/3)	N/A			N/A	N/A

	Rwanda		0%	83% (5/6)	83% (5/6)	83% (5/6)			50% (1/2)			75% (6/8)		
MT 1.3.1	# of platforms for citizen and consumer engagement in the pharmaceutical sector established or strengthened with MTaPS support	Annually	0	0	1	1						1		
	Jordan		0	0	0	0						0		
	DRC MNCH		0	0	1	1						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		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	0						0		
	Jordan		0	0	0	0						0		
MT 2.1.2	# of MTaPS-supported health professional training curricula developed or revised to address pharmaceutical management topics	Annually	0	5	2	7						7		
	Asia Bureau		0	N/A	1	2						2		
	Bangladesh		0	4	0	1						1		
	IGAD		0	1	1	N/A						N/A		
	Jordan		0	N/A	N/A	4						4		
MT 2.2.2	# of persons trained in pharmaceutical management with MTaPS support	Quarterly	0	1,001	11,782	4,605		889		2,158		2,089		9,862
	Asia Bureau		0	0	99	Female	8	Female	0	Female	0	Female	7	413
			Male	17	Male	0	Male	0	Male	26				

					Unknown	220	Unknown	0	Unknown	56	Unknown	79	
					<u>Total</u>	245	<u>Total</u>	0	<u>Total</u>	56	<u>Total</u>	112	
Bangladesh	0	961	2,856		Female	168	Female	83	Female	217	Female	68	3,013
					Male	676	Male	367	Male	1,005	Male	429	
					Unknown	0	Unknown	0	Unknown	0	Unknown	0	
					<u>Total</u>	844	<u>Total</u>	450	<u>Total</u>	1,222	<u>Total</u>	497	
Cross Bureau	0	N/A	N/A		Female	0	Female	0	Female	0	Female	0	124
					Male	0	Male	0	Male	0	Male	0	
					Unknown	0	Unknown	60	Unknown	0	Unknown	64	
					<u>Total</u>	0	<u>Total</u>	60	<u>Total</u>	0	<u>Total</u>	64	
DRC	0	0	373		Female	0	Female	1	Female	20	Female	0	192
					Male	0	Male	9	Male	39	Male	0	
					Unknown	123	Unknown	0	Unknown	0	Unknown	0	
					<u>Total</u>	123	<u>Total</u>	10	<u>Total</u>	59	<u>Total</u>	0	
IGAD	0	0	843		Female	0	Female	10	Female	0	Female	N/A	23
					Male	0	Male	13	Male	0	Male		
					Unknown	0	Unknown	0	Unknown	0	Unknown		
					<u>Total</u>	0	<u>Total</u>	23	<u>Total</u>	0	<u>Total</u>		
Indonesia	0	0	0		Female	110	Female	0	Female	7	Female	17	251
					Male	94	Male	0	Male	2	Male	5	
					Unknown	16	Unknown	0	Unknown	0	Unknown	0	
					<u>Total</u>	220	<u>Total</u>	0	<u>Total</u>	9	<u>Total</u>	22	
Jordan	0	N/A	N/A		Female	0	Female	0	Female	0	Female	35	50
					Male	0	Male	0	Male	0	Male	15	
					Unknown	0	Unknown	0	Unknown	0	Unknown	0	
					<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	50	
Mali MNCH	0	0	0		Female	4	Female	N/A	Female	N/A	Female	0	8
					Male	4	Male	N/A	Male	N/A	Male	0	
					Unknown	0	Unknown	N/A	Unknown	N/A	Unknown	0	
					<u>Total</u>	8	<u>Total</u>	N/A	<u>Total</u>	N/A	<u>Total</u>	0	
Mozambique	0	40	21		Female	6	Female	0	Female	4	Female	69	125
					Male	6	Male	0	Male	6	Male	34	
					Unknown	0	Unknown	0	Unknown	0	Unknown	0	
					<u>Total</u>	12	<u>Total</u>	0	<u>Total</u>	10	<u>Total</u>	103	
Nepal	0	N/A	38		Female	36						121	
					Male	85							
					Unknown	0							
					<u>Total</u>	121							
Philippines	0	0	6926		Female	2160	Female	182	Female	437	Female	676	5,191
					Male	833	Male	83	Male	204	Male	336	
					Unknown	15	Unknown	46	Unknown	0	Unknown	219	
					<u>Total</u>	3008	<u>Total</u>	311	<u>Total</u>	641	<u>Total</u>	1,231	
Rwanda	0	0	603		Female	17	Female	13	Female	0	Female	N/A	236
					Male	42	Male	22	Male	0	Male		
					Unknown	0	Unknown	0	Unknown	142	Unknown		
					<u>Total</u>	59	<u>Total</u>	35	<u>Total</u>	142	<u>Total</u>		
Rwanda PEPFAR	0	N/A	N/A		Female	17	Female	0	Female	5	Female	4	88

	Tanzania PEPFAR	N/A	N/A	30	Male	42	Male	0	Male	14	Male	6	27	
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	59	<u>Total</u>	0	<u>Total</u>	19	<u>Total</u>	10		
					Female	10	Female	N/A	Female	N/A	Female	N/A		
					Male	17	Male	N/A	Male	N/A	Male	N/A		
					Unknown	0	Unknown	N/A	Unknown	N/A	Unknown	N/A		
					<u>Total</u>	27	<u>Total</u>	N/A	<u>Total</u>	N/A	<u>Total</u>	N/A		
MT 2.2.3	# of in-person or e-learning courses developed with MTaPS assistance	Annually	0	1	11	11						11		
	Asia Bureau		0	N/A	3	2						2		
	Bangladesh		0	0	0	N/A						N/A		
	Cross Bureau		0	1	1	2						2		
	IGAD		N/A	N/A	0	N/A						N/A		
	Mozambique		0	0	1	1						1		
	Philippines		0	0	4	6						6		
	Rwanda		0	0	2	N/A						N/A		
MT 2.2.4	# of people successfully completing MTaPS-developed e-learning courses	Quarterly	0	65	6,917	2,250		1,084		618		275		4,227
	Asia Bureau		0	0	52	Female	0	Female	0	Female	0	Female	N/A	0
			Male	0	Male	0								
			Unknown	0	Unknown	0								
			<u>Total</u>	0	<u>Total</u>	0								
	Bangladesh		0	0	0	Female	0	Female	0	Female	0	Female	0	0
			Male	0	Male	0								
			Unknown	0	Unknown	0								
			<u>Total</u>	0	<u>Total</u>	0								
	Cross Bureau		0	6	8	Female	0	Female	0	Female	0	Female	0	208
			Male	0	Male	0								
			Unknown	0	Unknown	60	Unknown	0	Unknown	0	Unknown	148	Unknown	148
			<u>Total</u>	0	<u>Total</u>	60	<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	148	<u>Total</u>	148
	Mozambique		0	65	0	Female	0	Female	0	Female	0	Female	0	0
			Male	0	Male	0								
			Unknown	0	Unknown	0								
			<u>Total</u>	0	<u>Total</u>	0								
Philippines	0	0	6,857	Female	1602	Female	737	Female	487	Female	N/A	3,892		
	Male	648	Male	287	Male	131	Male	0	Male	0	Male	0		
	Unknown	0	Unknown	0	Unknown	0	Unknown	0	Unknown	0	Unknown	0		
	<u>Total</u>	2,250	<u>Total</u>	1,024	<u>Total</u>	618	<u>Total</u>	618	<u>Total</u>	618	<u>Total</u>	618		
Rwanda	0	0	0	Female	0	Female	0	Female	N/A	Female	0	127		
	Male	0	Male	0	Male	0	Male	0	Male	0	Male	0		
	Unknown	0	Unknown	0	Unknown	0	Unknown	0	Unknown	127	Unknown	127		

						<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>		<u>Total</u>	127	
MT 2.4.1	# of days reduced for product registration in countries with MTaPS-supported national medicines registration authority	Annually	0	0	180				0				0	
	<i>Mali MNCH</i>		0	N/A	N/A				0				0	
MT 2.4.2	# of premises inspected by MTaPS-supported NMRA	Annually	0	N/A	N/A				3,751				3,751	
	<i>Nepal</i>		0	N/A	N/A				3,751				3,751	
MT 2.4.3	# of regional harmonization initiatives with participation by MTaPS-supported NMRAs	Annually	0	0	3				10				10	
	<i>Asia Bureau</i>		0	N/A	1				10				10	
	<i>IGAD</i>		0	N/A	2				N/A				N/A	
	<i>Mozambique</i>		0	0	0				N/A				N/A	
MT 2.4.4	# of countries that have conducted an assessment at any level of the regulatory system	Annually	Yes	Yes	Yes				Yes				Yes	
	<i>Nepal</i>		Yes	Yes	Yes				Yes				Yes	
MT 2.4.5	# of medicines with current valid registration	Annually	0	N/A	N/A				60				60	
	<i>Mali MNCH</i>		0	N/A	N/A				60				60	
NP 1	% of USG-assisted organizations with improved performance	Annually	0	0%	0%				0% (0/1)				0% (0/1)	
NP 2	# of wholesalers inspected according to the new good distribution practices inspection guidelines	Annually	0	0	0				22				22	
NP 3	# of public- and private-sector	Annually	0	0	12				N/A				N/A	

	pharmacies inspected according to the new good pharmacy practices inspection guidelines						
NP 4	# of innovations supported through USG assistance	Annually	0	0	2	4	4
NP 5	% of surveyed medicines labelled in compliance with labelling requirements	Annually	8.7%	N/A	8.7%	0%	0%
NP 6	% of private-sector pharmacies surveyed dispensing prescription medicines without prescription	Annually	25% (5/20)	N/A	25% (5/20)	N/A	N/A
NP 8	# of monitoring visits in which GON participates	Annually	0	N/A	2	6	6
PP 1.5.1	# of TB and FP commodities for which a quantification process is completed with MTaPS support	Annually	0	0	0	6	6
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	0	0
PP 2.2.1	# of TB and FP products registered in the Philippines with MTaPS support	Annually	0	0	0	9	9
PP 3.2	# of synergized approaches for supply chain management, human resources for health, and	Annually	0	2	5	1	1

	engagements with 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	33% (4/12)	25% (2/8)				25% (2/8)
DRC 3	# of health facilities that are implementing the post-training action plan	Annually	0	0	0	50				50
DRC 4	% of facilities implementing appropriate storage of oxytocin*	Quarterly	0	0	0	69% (50/72)	75% (54/72)	75% (54/72)	75% (54/72)	75% (54/72)
DRC 5	# of DPS and/or IPS using the updated directory of registered medicines	Semi-Annually	0	0	0	4		4		8
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% (40/40)		100% (20/20)		100% (60/60)
	<i>Bangladesh</i>		90%	91% (4,293/4,680)	100% (2,006/2,006)	N/A		N/A	N/A	
	<i>Philippines</i>		0%	0%	0%	N/A		Data not reported	Data not reported	
	<i>Rwanda Field Support</i>		0%	100% (10/10)	100% (10/10)	N/A		N/A	N/A	
	<i>Rwanda PEPFAR</i>		0%	N/A	N/A	100% (40/40)		100% (20/20)	100% (60/60)	
MT 3.1.2	# and % of MTaPS-supported health facilities using	Semi-annually			85% (6,434/7,565)	72% (4,510/6,227)		72% (4,447/6,140)	72% (4,447/6,140)	

	interoperable PMIS tools*													
	Bangladesh		61% (61/100)	87% (3,923/ 4,502)	77% (4,734/ 6,173)	72% (4,461/6,173)		72% (4,418/6,106)				72% (4,418/ 6,106)		
	Mozambique		0%	64% (9/14)	85% (1,412/ 1,652)	64% (9/14)		64% (9/14)				64% (9/14)		
	Rwanda PEPFAR		0% (0/100)	N/A	N/A	100% (40/40)		100% (20/20)				100% (20/20)		
MT 3.1.3	# of countries that have a functional early warning system linking clinical and stock data	Annually	0	0	2			1				1		
	Bangladesh		0	Yes	Yes			Yes				Yes		
	Mozambique		0	No	No			No				No		
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% (4,293/ 4,680)	76% (4,588/ 6,003)	75% (4,723/6,271)		62% (3,916/6,271)		76% (4,761/6,271)		74% (4,962/6,677)		
	Bangladesh		73% (84/115)	92% (4,293/ 4,680)	77% (4,488/ 5,826)	Hospitals	64% (197/308)	Hospitals	50% (155/308)	Hospitals	63.64% (196/308)	Hospitals	57% (185/325)	74% (4,830/ 6,500)
						Other	76% (4,432/ 5,786)	Other	63% (3,644/ 5,786)	Other	76.73% (4,439/ 5,786)	Other	75% (4,645/ 6,175)	
						Total	76% (4,629/ 6,094)	Total	62% (3,799/ 6,094)	Total	76% (4,635/ 6,094)	Total	74% (4,830/ 6,500)	
	DRC MNCH		42% (74/177)	Data not reported	56% (100/177)	Hospitals	100% (10/10)	Hospitals	90% (9/10)	Hospitals	100% (10/10)	Hospitals	100% (10/10)	74% (132/177)
						Health centers	50.3% (84/167)	Health centers	65% (108/167)	Health centers	69% (116/167)	Health centers	73% (122/167)	
Total		53.1% (94/177)				Total	66% (117/177)	Total	71% (126/177)	Total	74% (132/177)			
MT 3.3.2	# of PSS technical documents authored by MTaPS	Semi-annually	0	14	39	27		29				56		
	Asia Bureau		0	N/A	N/A	0		0				0		
	CSL		0	N/A	1	3		7				10		
	Cross Bureau		10	13	10	4		7				11		

	Indonesia		0	N/A	0	4		3		7
	Jordan		0	N/A	N/A	0		2		2
	Global MNCH		0	1	1	1		8		9
	Rwanda		0	N/A	27	15		2		17
MT 3.3.3	# of activities to engage with stakeholders to advance the PSS global learning agenda	Quarterly	0	11	12	11	8	19	26	64
	Asia Bureau		0	N/A	N/A	0	0	0	1	1
	CSL		0	N/A	0	0	5	3	8	16
	Cross Bureau		0	11	12	8	2	11	10	31
	Indonesia		0	N/A	0	3	1	5	7	16
PP 3.1	# of joint success stories produced	Annually	0	2	3	2				2
PP 3.4	# of gender assessments, analyses, studies, or research conducted by MTaPS on PSCM and PV	Annually	0	0	1	1				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% (50/50)		100% (50/50)		100% (50/50)
MNCH 18	# of countries supported to implement decentralized procurement systems	Semi-annually	0	N/A	N/A	N/A		N/A		N/A
MNCH 19	# of tailored tools developed for prequalification of suppliers, tender invitation and conduct of restricted tenders	Annually	0	0	N/A	N/A				N/A

	for prequalified suppliers							
MNCH 20	# of countries where bottlenecks in access to pediatric amoxicillin are identified and presented to MOH	Annually	0	0	N/A		N/A	N/A
MT 4.1.2	# of new or revised medicine pricing policies developed with MTaPS assistance	Annually	0	N/A	N/A		N/A	N/A
	<i>Indonesia</i>		0	N/A	N/A		N/A	
MT 4.2.1	# of pharmacy benefits programs introduced or improved in health sector with MTaPS support	Annually	0	1	N/A		N/A	N/A
	<i>Bangladesh</i>		0	1	N/A		N/A	
MT 4.2.2	Has the country established a national-level, multi-stakeholder platform for evidence-based PBP decision making? (yes/no)	Annually	0	N/A	0		N/A	N/A
	<i>Indonesia</i>		0	N/A	0		N/A	
MT 4.2.3	# of strategic plans developed or updated to address pharmaceutical costs and financing with MTaPS support	Semi-annually	0	2	0	1	1	2
	<i>Bangladesh</i>		0	2	0	N/A	N/A	N/A
	<i>Indonesia</i>		N/A	N/A	N/A	1	1	2
MT 4.3.1	Has the country increased domestic funding budgeted for or spent on high-priority diseases or conditions? (yes/no)	Annually	N/A	N/A	No		Data not reported	Data not reported
	<i>Indonesia</i>		N/A	N/A	No		Data not reported	

MT 4.3.2	Has the country reviewed public-sector pharmaceutical financing in the last fiscal year? (yes/no)	Annually	N/A	N/A	Yes	Yes				Yes
	<i>Indonesia</i>		N/A	N/A	Yes	Yes				
MT 4.3.3	Does the country have system(s) to track pharmaceutical expenditures? (yes/no)	Annually	N/A	N/A	N/A	No				No
	<i>Indonesia</i>		N/A	N/A	N/A	No				
MT 4.3.4	Has the country reduced the value of product losses (due to expired medicines or damage or theft) per value of commodities received? (yes/no)	Annually	N/A	N/A	0	N/A				N/A
	<i>Indonesia</i>		N/A	N/A	0	N/A				
PP 1.4.1	# of private-sector outlets providing FP or TB commodities through a referral and reimbursement scheme	Annually	N/A	N/A	5	0				0
MT 5.1.1	% of service delivery points with stock out of FP, TB, and HIV-AIDS tracer commodities	Quarterly								
	<i>Philippines</i>					38.3% (5,262/13,734)	36.5% (5,092 /13,953)	41% (671/1,626)	29% (3,294/11,425)	35% (14,319/40,738)
	<i>First-line TB meds (4 FDC)</i>		40.5%	30% (472/1,552)	19%	22.3% (348/1,563)	25.2% (386/1,534)	14.3% (12/84)	22% (339/1,522)	23% (1,085/4,703)
	<i>TB pediatric med (4FDC)</i>		90.6%	97% (856/883)	55%	59.7% (740/1,239)	55.66% (693/1,245)	42.1% (35/83)	43% (498/1,139)	53% (1,966/3,706)
	<i>TB preventive treatment (for children)</i>		63.8%	65% (645/987)	87%	89.9% (987/1,097)	76.2% (355/466)	85.2% (321/377)	N/A	86% (1,663/1,940)

	TB second-line drug (Levofloxacin 500mg)		N/A	53% (105/199)	0%	N/A	3.54% (7/198)	N/A	N/A	3.5% (7/198)
	TB second-line drug (Moxifloxacin 400mg)		N/A	5% (9/199)	0%	N/A	N/A	N/A	N/A	N/A
	TB second-line drug (Linezolid 600mg)		N/A	12% (24/199)	0%	N/A	9% (17/198)	N/A	N/A	9% (17/198)
	TB second-line drug (Bedaquiline)		N/A	13% (25/199)	0%	N/A	4.5% (9/198)	N/A	N/A	4.5% (9/198)
	GeneXpert cartridges		N/A	3% (13/395)	18%	N/A	27.8% (177/637)	33% (190/570)	N/A	30% (367/1,207)
	FP injectable		30.2%	12% (218/1,775)	34%	31.1% (526/1,690)	31.6% (535/1,691)	16% (14/86)	22% (345/1,550)	28% (1,420/5,017)
	FP implant		52.7%	55% (717/1,316)	39%	40.8% (603/1,478)	69.9% (894/1,278)	32% (27/83)	42% (498/1,189)	50% (2,022/4,028)
	FP oral COC		25.6%	8% (143/1,798)	16%	36.6% (624/1,705)	33.5% (569/1,694)	21% (18/86)	33% (523/1,577)	34% (1,734/5,062)
	FP oral POP		69.3%	31% (507/1,630)	20%	21.5% (369/1,717)	24.4% (411/1,684)	10% (9/86)	20% (312/1,566)	22% (1,101/5,053)
	IUD		36.7%	29% (454/1,566)	42%	43.9% (674/1,533)	47.5% (679/1,428)	41% (35/85)	38% (504/1,323)	43% (1,892/4,369)
	Male condom		38.9%	21% (358/1,743)	22%	22.8% (391/1,712)	21% (360/1,702)	12% (10/86)	18% (275/1,559)	20% (1,036/5,059)
MT 5.1.1 (FP)	Stockout rates of tracer medicines in MTaPS-supported health facilities (FP) Bangladesh	Semi-annually		N/A	N/A	.13% (38/30,172)		.11% (32/30,191)		.12% (70/60,363)
MT 5.1.2	% of tracer products stocked according to plan	Semi-annually				28% (25/88)		47% (9/19)		32% (34/107)
	Bangladesh		Data not reported	Stocked according to plan			50%	Stocked according to plan	N/A	50%
				Overstocked			50%	Overstocked	N/A	50%
				Understocked			0	Understocked	N/A	0
				Stocked out			0	Stocked out	N/A	0
	DRC MNCH		Data not reported	Stocked according to plan			58%	Stocked according to plan	47%	52.5%
				Overstocked			26%	Overstocked	N/A	26%
				Understocked			16%	Understocked	N/A	16%
Stocked out					0%	Stocked out	N/A	0%		

MT 5.1.2 (FP)	% of tracer products stocked according to plan (FP)	Semi-annually				50% (6/12)		50% (6/12)		50% (12/24)
	Bangladesh		Data not reported				Stocked according to plan	50%	17%	33.5%
							Overstocked	50%	83%	67%
							Understocked	0	0	0
							Stocked out	0	0	0
MT 5.1.2 (TB)	% of tracer products stocked according to plan (TB)	Semi-annually					N/A	N/A	N/A	
	Bangladesh		Data not reported				Stocked according to plan	N/A	N/A	N/A
							Overstocked	N/A	N/A	N/A
							Understocked	N/A	N/A	N/A
							Stocked out	N/A	N/A	N/A
MT 5.1.3	% of initially MTaPS-supported supply chain functions carried out by national entities that are done without external technical assistance	Semi-annually	0%	Data not reported	100% (3/3)	100% (3/3)		N/A		100% (3/3)
	Bangladesh		Data not reported	100% (3/3)	LMIS	100% (1/1)	LMIS	N/A		
					Inventory management	100% (2/2)	Inventory management	N/A		
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)		N/A		0%
	Rwanda		0%	0%	0% (0/100)	0% (0/0)		N/A		0%
MT 5.2.2	% of MTaPS-supported health facilities promoting patient-centered pharmaceutical services*	Semi-annually				100% (20/20)		100% (20/20)		100% (20/20)
	Rwanda		0%	N/A	N/A	Hospitals	100% (10/10)	Hospitals	100% (10/10)	100% (20/20)
						Health Centers	100% (10/10)	Health Centers	100% (10/10)	

						Pharmacies	0	Pharmacies	0					
						Other	0	Other	0					
						Total	100% (20/20)	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					100% (20/20)		100% (20/20)				100% (20/20)	
	Rwanda		0%	N/A	N/A	Hospitals	100% (10/10)	Hospitals	100% (10/10)	Health centers	100% (10/10)	Health centers	100% (10/10)	100% (20/20)
						Pharmacies	0	Pharmacies	0	Other	0	Other	0	
						Total	100% (20/20)	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% (65/125)		56% (76/135)		55% (74/135)		73% (72/99)		38.7% (86/222) ⁹
	Bangladesh		31% (31/100)	3% (3/100)	56% (28/50)	Pharmaceuticals	67.6% (44/65)	Pharmaceuticals	67.6% (44/65)	Pharmaceuticals	64.6% (42/65)	Pharmaceuticals	58% (38/65)	67.6% (44/65)
						Total	67.6% (44/65)	Total	67.6% (44/65)	Total	64.6% (42/65)	Total	58% (38/65)	
	IGAD		0%	Data not reported	24% (10/41)	Hospitals	6.1% (2/33)	Hospitals	9% (3/33)	Hospitals	9% (3/33)	Hospitals	N/A	6.5% (8/123)
						Health center	0% (0/6)	Health center	0% (0/6)	Health center	0% (0/6)	Health center	0% (0/6)	
						Pharmacies	0% (0/2)	Pharmacies	0% (0/2)	Pharmacies	0% (0/2)	Pharmacies	0% (0/2)	
						Total	4.8% (2/41)	Total	7% (3/41)	Total	7% (3/41)	Total	N/A	
						Health center		Health center		Health center		Health center		
						Total		Total		Total		Total		
	Rwanda PEPFAR		0% (0/10)	0% (0/10)	50% (5/10)	Hospital	100% (1/1)	Hospital	100% (10/10)	Hospital	100% (10/10)	Hospital	100% (10/10)	100% (20/20)
Health center		100% (9/9)				Health center	100% (10/10)	Health center	100% (10/10)	Health center	100% (10/10)			
Total		100% (10/10)				Total	100% (20/20)	Total	100% (20/20)	Total	100% (20/20)			
Mozambique	0%	N/A	100%	Hospital	100% (2/2)	Hospital	100% (2/2)	Hospital	100% (2/2)	Hospital	100% (3/3)	100% (14/14)		

⁹ Value is the PY4 cumulative value summed across countries (not quarters)

						Health center	100%	Health center	100% (7/7)	Health center	100%	Health center	100%	
						<i>Total</i>	(7/7)	<i>Total</i>	(7/7)	<i>Total</i>	(7/7)	<i>Total</i>	(11/11)	
							(9/9)		100% (9/9)		(9/9)		100%	(14/14)
MT 5.3.2	% of adverse drug events (ADEs) reported to the NMRA and reviewed by the NMRA	Semi-annually		22% (95/440)	53% (7,419/ 13,881)	21% (4,904/23,084)		40% (564/1,407)				22% (5,468/ 24,491)		
	IGAD		0% (0/0)	N/A	100% (1,104/ 1,104)	95.4% (1,667/1,748)		N/A				95.4% (1,667/ 1,748)		
	Bangladesh		68%	22%	77% (449/586)	86.68% (605/698)		100% (247/247)				90% (852/945)		
	Mozambique		60%	N/A	56% (1,237/ 2,213)	12.2% (1,223/10,035)		N/A				12.2% (1,223/ 10,035)		
	Mozambique PEPFAR		0	0	23% (1,563/ 6,635)	12% (1,223/10,035)		N/A				12.2% (1,223/ 10,035)		
	Rwanda		N/A	73% (274/374)	55% (102/186)	32.8% (186/568)		27% (317/1,160)				29% (503/1,728)		
	Tanzania PEPFAR		N/A	N/A	100% (2,641/ 2,641)	N/A		N/A				N/A		
NP-MT 5.3.2	# of adverse drug events (ADEs) reported in Nepal	Annual	194	29	43	6						6		
MT 5.3.4	# of medical product regulatory actions carried out by the NMRA for reasons of drug safety during the reporting period	Annual	0	N/A	N/A	15						15		
	Nepal		0	N/A	N/A	15						15		
MT 5.4.1	% of MTaPS-supported health facilities that have documented evidence of improvement in antimicrobial medicines prescription and/or use*	Annual	0	N/A	N/A	N/A		0% (0/3)				0% (0/3)		
	Jordan		0	N/A	N/A	N/A		0% (0/3)				0% (0/3)		

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)		100% (7/7)		100% (7/7)
	Mozambique		0%	100%	100% (7/7)	100% (7/7)		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	0	4
	Jordan		0	N/A	N/A	3	0	1	1	5
ML 1	# of marketing authorization commission meetings supported by MTaPS	Quarterly	0	0	0	0	0	1	1	2
	Mali MNCH		0	0	0	0	0	N/A	1	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	1	1
	Mali MNCH		0	0	0	0	0	N/A	1	1
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	N/A	N/A	N/A	3

	Mali		0	0	0	0					0				
	Rwanda		0	0	0	1					1				
	Senegal		0	0	0	0					0				
	Uganda		0	0	0	2					2				
	# of entities implementing EVD guidelines with MTaPS support		0	0	0	66		N/A		N/A	N/A	66			
EVD 2	Cote D'Ivoire	Quarterly	0	0	0	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A		
						Non-ETU		Non-ETU		Non-ETU					
						POE		POE		POE					
						Total		Total		Total					
	Mali		0	0	0	ETU	0	ETU	N/A	ETU	N/A	ETU	N/A	ETU	7
						Non-ETU	7	Non-ETU		Non-ETU					
						POE	0	POE		POE					
						Total	7	Total		Total					
	Rwanda		0	0	0	ETU	0	Non-ETU	N/A	ETU	N/A	ETU	N/A	ETU	0
						Non-ETU	0	POE		Non-ETU					
						POE	0	Total		POE					
						Total	0	Total		Total					
	Senegal		0	0	0	ETU	0	Non-ETU	N/A	ETU	N/A	ETU	N/A	ETU	0
						Non-ETU	0	POE		Non-ETU					
						POE	0	Total		POE					
						Total	0	Total		Total					
	Uganda		0	0	0	ETU	9	ETU	N/A	ETU	N/A	ETU	N/A	ETU	59
						Non-ETU	39	Non-ETU		Non-ETU					
						POE	11	POE		POE					
						Total	59	Total		Total					
	# of persons who received EVD training with MTaPS support		0	0	0	924		N/A		N/A	N/A	924			
EVD 3	Cote D'Ivoire	Quarterly	0	0	0	Female	N/A	Female	N/A	Female	N/A	Female	N/A		
						Male		Male		Male					
						Unknown		Unknown		Unknown					
						Total		Total		Total					
	Mali		0	0	0	Female	0	Female	N/A	Female	N/A	Female	N/A	Female	0
						Male	0	Male		Male					
						Unknown	0	Unknown		Unknown					
						Total	0	Total		Total					
	Rwanda		0	0	0	Female	17	Female	N/A	Female	N/A	Female	N/A	Female	32
						Male	15	Male		Male					
						Unknown	0	Unknown		Unknown					
						Total	32	Total		Total					
			0	0	0	Female		Male		Female		Female	0		

	Senegal					Male	0	Unknown		Male		Male								
						Unknown	0	Total		Unknown		Unknown								
						Total	0	Female		Total		Total								
	Uganda					Female	464	Female		Female		Female								
						Male	428	Male		Male		Male								
						Unknown	0	Unknown		Unknown		Unknown								
Total		892	Total	Total	Total															
		0	0	0	7	N/A	N/A	N/A	892											
EVD 4	# of MTaPS-supported entities in compliance with EVD IPC guidelines	Quarterly				7			N/A			N/A			7					
	Cote D'Ivoire					ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	N/A		
						Non-ETU		Non-ETU		Non-ETU		Non-ETU		Non-ETU		Non-ETU				
						POE		POE		POE		POE		POE		POE				
						Total		Total		Total		Total		Total		Total				
	Mali					ETU	0	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	7		
						Non-ETU	7	Non-ETU		Non-ETU		Non-ETU		Non-ETU						
						POE	0	POE		POE		POE		POE						
						Total	7	Total		Total		Total		Total						
	Rwanda					ETU	0	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	0		
						Non-ETU	0	Non-ETU		Non-ETU		Non-ETU		Non-ETU						
						POE	0	POE		POE		POE		POE						
						Total	0	Total		Total		Total		Total						
	Senegal					ETU	0	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	ETU	N/A	0		
						Non-ETU	0	Non-ETU		Non-ETU		Non-ETU		Non-ETU						
						POE	0	POE		POE		POE		POE						
						Total	0	Total		Total		Total		Total						
	PP 2.3.1					% of sentinel facilities using PVIMS	Quarterly			20%	68.7% (138/201)			16% (32/200)			99.5% (199/200)			70% (564/801)
						Philippines					0	0	20%	68.7% (138/201)			16% (32/200)			99.5% (199/200)
	PH-P 1					# of products completed HTA process with MTaPS support	Annually			N/A	1									1
Philippines																				
PH- P 2	# of HIV/AIDS commodities that complete the quantification process with MTaPS support	Annually			N/A	9									9					
	Philippines																			

JO 1	# of National Vaccine Procurement Modernization Committee (NVPMC) meetings with MTaPS support.	Quarterly	0	N/A	N/A	1	N/A	0	2	3			
	Jordan		0	N/A	N/A	1	N/A	0	2	3			
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	N/A	4			
	Jordan		0	N/A	N/A	4	N/A	0	0	4			
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	Female		0	0		
			Jordan	0	N/A	N/A	Female	0	Female	0	Female	0	0
							Male	0	Male	0	Male	0	0
							Unknown	0	Unknown	0	Unknown	0	0
							Total	0	Total	0	Total	0	0
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	0	0			
Jordan	0		N/A	N/A	0	0	2	0	2				
JO 7	# of COVID-19 vaccines safety surveillance reports produced with MTaPS support	Quarterly	0	N/A	N/A	1	1	2	0	4			
	Jordan		0	N/A	N/A	1	1	2	0	4			
MSC 1	# of AMR-related in-country meetings or activities	Quarterly	0	122	170	55	38	50	45	188			

	conducted with multisectoral participation								
	<i>Bangladesh</i>	0	3	2	3	1	2	3	9
	<i>Burkina Faso</i>	0	2	2	1	1	1	1	4
	<i>Senegal</i>	0	2	5	2	2	1	3	8
	<i>Cameroon</i>	0	5	7	1	1	1	4	7
	<i>Côte d'Ivoire</i>	0	35	67	14	22	22	18	76
	<i>DRC</i>	0	6	20	3	2	3	0	8
	<i>Ethiopia</i>	0	1	N/A	N/A	0	3	2	5
	<i>Kenya</i>	0	38	26	16	2	2	4	24
	<i>Mali</i>	0	16	6	0	2	5	6	13
	<i>Mozambique</i>	0	0	13	4	3	5	N/A	12
	<i>Nigeria</i>	0	N/A	6	3	0	2	5	10
	<i>Tanzania</i>	0	4	2	4	1	2	1	8
	<i>Uganda</i>	0	9	7	4	1	1	1	7
	# and % of female participants in meetings or other events organized by the multisectoral body on AMR					31% (287/929)		32% (492/1,529)	32% (779/2,458)
	<i>Bangladesh</i>	29% (24/84)	29% (24/84)	29% (12/41)		19% (46/240)		23% (14/60)	20% (60/300)
	<i>Burkina Faso</i>	18% (3/17)	22% (6/27)	100% (10/10)		29% (9/31)		29% (5/17)	38% (14/48)
	<i>Cameroon</i>	50% (2/4)	39% (39/101)	52% (32/62)		45% (20/44)		32% (18/56)	27% (38/100)
	<i>Côte d'Ivoire</i>	38% (21/55)	38% (21/55)	43% (70/163)		37% (79/214)		43% (72/168)	39.5% (151/382)
	<i>DRC</i>	34%	36% (45/124)	32% (30/93)		34% (33/98)		37% (21/56)	35% (54/154)
	<i>Ethiopia</i>	22%	17%	N/A		N/A		22% (71/321)	22% (71/321)
	<i>Jordan</i>	45% (5/11)	Data not reported	45% (5/11)		N/A		N/A	N/A
	<i>Kenya</i>	66%	43% (496/1,147)	51% (105/207)		35% (13/37)		46% (88/189)	45% (101/226)
	<i>Mali</i>	15%	16% (20/124)	20% (22/109)		21% (11/51)		20% (71/343)	21% (82/394)
	<i>Mozambique</i>	48% (11/23)	Data not reported	40% (4/10)		40% (6/15)		39% (30/77)	40% (36/92)
MSC 2									

	<i>Nigeria</i>		Data not reported	Data not reported	41% (17/41)	N/A	46% (44/95)	46% (44/95)
	<i>Senegal</i>		58% (54/93)	58% (54/93)	34% (11/32)	37% (26/71)	40% (44/110)	39% (70/181)
	<i>Tanzania</i>		14% (3/21)	14% (3/21)	0% (0/0)	22% (11/50)	23% (3/13)	22% (14/63)
	<i>Uganda</i>		Data not reported	Data not reported	61% (28/46)	42% (33/78)	46% (11/24)	43% (44/102)
	# of policies, legislation, regulation, and operational documents related to national action plan on AMR implementation developed or updated with MTaPS support		0	17	13	12		12
MSC 3	<i>Bangladesh</i>	Annually	0	0	2	1		1
	<i>Burkina Faso</i>		0	0	1	1		1
	<i>Cameroon</i>		0	1	1	0		0
	<i>Côte d'Ivoire</i>		0	0	0	1		1
	<i>DRC</i>		0	3	0	0		0
	<i>Kenya</i>		0	3	3	1		1
	<i>Mali</i>		0	8	N/A	1		1
	<i>Mozambique</i>		0	N/A	2	N/A		N/A
	<i>Nigeria</i>		0	N/A	0	1		1
	<i>Senegal</i>		0	1	2	3		3
	<i>Tanzania</i>		0	1	2	1		1
	<i>Uganda</i>		0	0	0	2		2
			# of multisectoral bodies that have developed a national monitoring framework with MTaPS support		0	1	1	8
MSC 4	<i>Bangladesh</i>	Annually	0	0	0	N/A		N/A
	<i>Burkina Faso</i>		0	0	0	0		0
	<i>Cameroon</i>		0	0	0	1		1
	<i>Côte d'Ivoire</i>		0	0	0	1		1
	<i>DRC</i>		0	0	0	1		1

	Kenya		0	1	1	1						1			
	Mali		0	0	N/A	N/A						N/A			
	Mozambique		0	0	0	0						0			
	Nigeria		0	N/A	0	1						1			
	Senegal		0	0	1	2						2			
	Tanzania		0	0	0	1						1			
	Uganda		0	0	0	0						0			
	# of persons trained in AMR-related topics in leadership/management related to multisectoral engagement in AMR with MTaPS support		0	314	655	86		46		73		32		237	
MSC 5	Quarterly	Bangladesh	0	0	0	Female	N/A	Female	N/A	Female	N/A	Female	N/A	N/A	
						Male		Male		Male		Male			
						Unknown		Unknown		Unknown		Unknown			
						Total		Total		Total		Total			
		Burkina Faso	0	0	80	Female	N/A	Female	0	Female	0	Female	0	Female	0
						Male		Male	0	Male	0	Male	0		
						Unknown		Unknown	0	Unknown	0	Unknown	0		
						Total		Total	0	Total	0	Total	0		
		Cameroon	0	0	20	Female	N/A	Female	N/A	Female	N/A	Female	N/A	Female	N/A
						Male		Male		Male		Male			
Unknown	Unknown					Unknown		Unknown							
Total	Total					Total		Total							
Côte d'Ivoire	0	134	0	Female	N/A	Female	0	Female	N/A	Female	N/A	Female	N/A		
				Male		Male	0	Male		0					
				Unknown		Unknown	0	Unknown		0					
				Total		Total	0	Total		0					
DRC	0	0	463	Female	N/A	Female	0	Female	N/A	Female	N/A	Female	0		
				Male		Male	0	Male		0					
				Unknown		Unknown	0	Unknown		0					
				Total		Total	0	Total		0					
Ethiopia	0	150	N/A	Female	N/A	Female	0	Female	N/A	Female	N/A	Female	1		
				Male		Male	0	Male		0					
				Unknown		Unknown	0	Unknown		0					
				Total		Total	0	Total		0					
Kenya	0	N/A	N/A	Female	N/A	Female	6	Female	N/A	Female	N/A	Female	N/A		
				Male		Male	16	Male		0					
				Unknown		Unknown	0	Unknown		0					
				Total		Total	22	Total		0					
Mali	0	30	2	Female	N/A										
				Male		Male		0		Male		0			

						<i>Unknown</i>	0	<i>Unknown</i>		<i>Unknown</i>		<i>Unknown</i>		
						<u>Total</u>	0	<u>Total</u>		<u>Total</u>		<u>Total</u>		
	Mozambique		0	0	45	<i>Female</i>	5	<i>Female</i>	2	<i>Female</i>	23	<i>Female</i>	2	67
						<i>Male</i>	2	<i>Male</i>	3	<i>Male</i>	27	<i>Male</i>	3	
						<i>Unknown</i>	0	<i>Unknown</i>	0	<i>Unknown</i>	0	<i>Unknown</i>	0	
						<u>Total</u>	7	<u>Total</u>	5	<u>Total</u>	50	<u>Total</u>	5	
	Nigeria		0	N/A	0	<i>Female</i>	8	<i>Female</i>	0	<i>Female</i>	0	<i>Female</i>	0	25
						<i>Male</i>	12	<i>Male</i>	0	<i>Male</i>	0	<i>Male</i>	5	
						<i>Unknown</i>	0	<i>Unknown</i>	0	<i>Unknown</i>	0	<i>Unknown</i>	0	
						<u>Total</u>	20	<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	5	
	Senegal		0	0	0	<i>Female</i>	0	<i>Female</i>	N/A	<i>Female</i>	N/A	<i>Female</i>	0	0
						<i>Male</i>	0	<i>Male</i>		<i>Male</i>		0		
						<i>Unknown</i>	0	<i>Unknown</i>		<i>Unknown</i>		0		
						<u>Total</u>	0	<u>Total</u>		<u>Total</u>		0		
	Tanzania		0	0	0	<i>Female</i>	N/A	<i>Female</i>	N/A	<i>Female</i>	N/A	<i>Female</i>	N/A	N/A
						<i>Male</i>		<i>Male</i>		<i>Male</i>				
						<i>Unknown</i>		<i>Unknown</i>		<i>Unknown</i>				
						<u>Total</u>		<u>Total</u>		<u>Total</u>				
	Uganda		0	0	45	<i>Female</i>	27	<i>Female</i>	6	<i>Female</i>	2	<i>Female</i>	0	101
						<i>Male</i>	32	<i>Male</i>	13	<i>Male</i>	21	<i>Male</i>	0	
						<i>Unknown</i>	0	<i>Unknown</i>	0	<i>Unknown</i>	0	<i>Unknown</i>	0	
						<u>Total</u>	59	<u>Total</u>	19	<u>Total</u>	23	<u>Total</u>	0	
	# of e-learning courses or mentoring platforms related to AMR developed or adapted with MTaPS support		0	2	25				26					26
	Bangladesh		0	0	0				0					0
	Burkina Faso		0	0	1				0					0
	Cameroon		0	0	20				20					20
	Côte d'Ivoire		0	1	2				6					6
	DRC		0	0	0				N/A					N/A
	Kenya		0	0	0				0					0
	Mali		0	1	2				N/A					N/A
	Mozambique		0	N/A	0				N/A					N/A
	Nigeria		0	N/A	0				N/A					N/A
	Senegal		0	0	0				0					0
	Tanzania		0	0	0				N/A					N/A
	Uganda		0	0	0				0					0
	# of data collection and analysis mechanisms for tracking AMR-related indicators developed or		0	0	2				5					5

	strengthened with MTaPS support													
	Bangladesh	0	0	0					N/A				N/A	
	Burkina Faso	0	0	0					0				0	
	Cameroon	0	0	0					1				1	
	Côte d'Ivoire	0	0	0					0				0	
	DRC	0	0	1					0				0	
	Kenya	0	0	0					1				1	
	Mozambique	0	N/A	1					2				2	
	Nigeria	0	N/A	0					0				0	
	Senegal	0	0	0					0				0	
	Tanzania	0	0	0					1				1	
	Uganda	0	0	0					0				0	
	# of updated policies, legislation, regulations, or operational documents for improving infection prevention and control (IPC)	0	9	3					7				7	
	Bangladesh	0	0	0					N/A				N/A	
	Burkina Faso	0	0	0					N/A				N/A	
	Cameroon	0	0	1					1				1	
	Côte d'Ivoire	0	7	0					0				0	
	DRC	0	0	0					N/A				N/A	
	Kenya	0	0	3					2				2	
	Mali	0	1	N/A					1				1	
	Mozambique	0	N/A	1					N/A				N/A	
	Nigeria	0	N/A	1					1				1	
	Senegal	0	0	0					1				1	
	Tanzania	0	1	0					1				1	
	Uganda	0	0	0					1				1	
	# of persons trained in IPC with MTaPS support	0	1,199	6,960		654		320		1,618		1,294	3,886	
	Bangladesh	0	0	95		Female	0	Female	0	Female	47	Female	61	264
						Male	0	Male	0	Male	67	Male	89	
						Unknown	0	Unknown	0	Unknown	0	Unknown	0	
						<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	114	<u>Total</u>	150	
	Cameroon	0	86	88		Female	N/A	Female	N/A	Female	N/A	Female	N/A	N/A
						Male	N/A	Male	N/A	Male	N/A	Male	N/A	
						Unknown	N/A	Unknown	N/A	Unknown	N/A	Unknown	N/A	
						<u>Total</u>	N/A	<u>Total</u>	N/A	<u>Total</u>	N/A	<u>Total</u>	N/A	
	Côte d'Ivoire	0	0	131		Female	0	Female	N/A	Female	52	Female	13	158
						Male	0	Male	N/A	Male	76	Male	17	
						Unknown	0	Unknown	N/A	Unknown	0	Unknown	0	
						<u>Total</u>	0	<u>Total</u>	N/A	<u>Total</u>	128	<u>Total</u>	30	

DRC		0	0	94	Female	N/A	Female	N/A	Female	N/A	Female	N/A	N/A	
					Male		Male		Male					
					Unknown		Unknown		Unknown					
					<u>Total</u>		<u>Total</u>		<u>Total</u>					
Ethiopia		0	0	N/A	Female	N/A	Female	N/A	Female	4	Female	0	28	
					Male		Male		Male	24	Male	0		
					Unknown		Unknown		Unknown	0	Unknown	0		
					<u>Total</u>		<u>Total</u>		<u>Total</u>	28	<u>Total</u>	0		
Kenya		0	642	5,230	Female	16	Female	8	Female	64	Female	236	742	
					Male	14	Male	5	Male	41	Male	278		
					Unknown	80	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	110	<u>Total</u>	13	<u>Total</u>	105	<u>Total</u>	514		
Mali		0	N/A	21	Female	0	Female	N/A	Female	9	Female	N/A	29	
					Male	0	Male		20	Male	0			
					Unknown	0	Unknown		0	Unknown	0			
					<u>Total</u>	0	<u>Total</u>		29	<u>Total</u>	29			
Mozambique		0	0	0	Female	0	Female	21	Female	6	Female	N/A	57	
					Male	0	Male	23	Male	7	Male			0
					Unknown	0	Unknown	0	Unknown	0	Unknown			0
					<u>Total</u>	0	<u>Total</u>	44	<u>Total</u>	13	<u>Total</u>			13
Nigeria		0	N/A	15	Female	0	Female	N/A	Female	24	Female	8	51	
					Male	0	Male		18	Male	1			
					Unknown	0	Unknown		0	Unknown	0			
					<u>Total</u>	0	<u>Total</u>		42	<u>Total</u>	9			
Senegal		0	0	22	Female	0	Female	5	Female	70	Female	267	670	
					Male	0	Male	8	Male	77	Male	181		
					Unknown	62	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	62	<u>Total</u>	13	<u>Total</u>	147	<u>Total</u>	448		
Tanzania		0	471	17	Female	22	Female	40	Female	0	Female	N/A	117	
					Male	18	Male	37	Male	0	Male			0
					Unknown	0	Unknown	0	Unknown	0	Unknown			0
					<u>Total</u>	40	<u>Total</u>	77	<u>Total</u>	0	<u>Total</u>			0
Uganda		0	0	1,247	Female	257	Female	75	Female	562	Female	45	1,770	
					Male	185	Male	98	Male	450	Male	98		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	442	<u>Total</u>	173	<u>Total</u>	1,012	<u>Total</u>	143		
IP 3	# and % of MTaPS-supported facilities that are using standardized tool(s) for monitoring IPC and informing programmatic improvement*	Quarterly	50% (8/16)	100% (9/9)	94% (107/114)	91% (111/122)		95% (151/159)		91% (125/137)		100% (141/141)		100% (141/141)
			0% (0/0)	0% (0/0)	100% (2/2)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	Hospitals	100% (4/4)	100% (4/4)
						Health centers	0	Health centers	0	Health centers	0	Health centers	0	
Bangladesh					Others	0	Others	0	Others	0	Others	0		

Cameroon	0% (0/0)	0% (0/0)	100% (12/12)	Total	50% (2/4)	Total	50% (2/4)	Total	50% (2/4)	Total	100% (4/4)	100% (12/12)
				Hospitals	100% (12/12)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	
				Health centers	0							
				Others	0	Others	0	Others	0	Others	0	
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	100% (20/20)	100% (22/22)
				Animal health centers	0	Animal health centers	0	Animal health centers	100% (2/2)	Animal health centers	0	
				Others	0	Others	0	Others	0	Others	100% (2/2)	
				Total	73% (16/22)	Total	100% (22/22)	Total	100% (22/22)	Total	100% (22/22)	
DRC	0% (0/0)	0% (0/0)	100% (7/7)	Hospitals	100% (7/7)	Hospitals	100% (7/7)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	100% (12/12)
				Health centers	0							
				Others	0	Others	0	Others	0	Others	0	
				Total	100% (7/7)	Total	100% (7/7)	Total	100% (12/12)	Total	100% (12/12)	
Ethiopia	0% (0/0)	50% (15/30)	N/A	Hospitals	N/A	Hospitals	0	Hospitals	100% (5/5)	Hospitals	100% (5/5)	100% (5/5)
				Health centers	N/A	Health centers	0	Health centers	0	Health centers	0	
				Others	N/A	Others	0	Others	0	Others	0	
				Total	N/A	Total	0% (0/5)	Total	100% (5/5)	Total	100% (5/5)	
Kenya	0% (0/0)	0% (0/0)	100% (20/20)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	100% (20/20)
				Health centers	100% (1/1)							
				Others	0	Others	100% (20/20)	Others	0	Others	0	
				Total	100% (20/20)	Total	100% (20/20)	Total	100% (20/20)	Total	100% (20/20)	
Mali	0% (0/0)	0% (0/0)	100% (16/16)	Hospital	100% (9/9)	Hospital	100% (9/9)	Hospital	100% (9/9)	Hospital	100% (9/9)	100% (16/16)
				Health centers	100% (7/7)							
				Others	0	Others	0	Others	0	Others	0	
				Total	100% (16/16)	Total	100% (16/16)	Total	100% (16/16)	Total	100% (16/16)	
Mozambique	43% (3/7)	Data not reported	100% (7/7)	Hospital	100% (7/7)	Hospital	100% (7/7)	Hospital	42% (3/7)	Hospital	100% (7/7)	100% (7/7)
				Health centers	0	Health centers	0	Health centers	0 (0/0)	Health centers	0	
				Others	0	Others	0	Others	0 (0/0)	Others	0	
				Total	100% (7/7)	Total	100% (7/7)	Total	42% (3/7)	Total	100% (7/7)	

	Nigeria		0% (0/0)	N/A	0% (0/0)	Hospitals	0% (0/3)	Hospitals	14% (1/7)	Hospitals	28% (2/7)	Hospitals	100% (7/7)	100% (7/7)	
						Health centers	0	Health centers	0	Health centers	0	Health centers	0		
						Others	0	Others	0	Others	0	Others	0		
						<u>Total</u>	0% (0/3)	<u>Total</u>	14% (1/7)	<u>Total</u>	28% (2/7)	<u>Total</u>	100% (7/7)		
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	Hospitals	100% (8/8)	Hospitals	57% (8/14)	Hospitals	61% (8/13)	Hospitals	100% (12/12)	100% (13/13)	
						Health centers	0	Health centers	0	Health centers	0	Health centers	100% (1/1)		
						Others	0	Others	0	Others	0	Others	0		
						<u>Total</u>	100% (8/8)	<u>Total</u>	57% (8/14)	<u>Total</u>	61% (8/13)	<u>Total</u>	100% (13/13)		
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	Hospitals	100% (10/10)	Hospitals	100% (13/13)	Hospitals	100% (10/10)	Hospitals	100% (10/10)	100% (10/10)	
						Health centers	0	Health centers	0	Health centers	0	Health centers	0		
						Others	0	Others	0	Others	0	Others	0		
						<u>Total</u>	100% (10/10)	<u>Total</u>	100% (13/13)	<u>Total</u>	100% (10/10)	<u>Total</u>	100% (10/10)		
Uganda	0% (0/0)	0% (0/0)	100% (13/13)	Hospitals	100% (13/13)	Hospitals	100% (13/13)	Hospitals	100% (13/13)	Hospitals	100% (13/13)	100% (13/13)			
				Health centers	0	Health centers	0	Health centers	0	Health centers	0				
				Others	0	Others	0	Others	0	Others	0				
				<u>Total</u>	100% (13/13)	<u>Total</u>	100% (13/13)	<u>Total</u>	100% (13/13)	<u>Total</u>	100% (13/13)				
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)	3/4						3/4			
	Bangladesh		No	No	No	No						No			
	Kenya		No	Yes	Yes	Yes						Yes			
	Mali		No	No	Yes	Yes						Yes			
	Nigeria		No	N/A	Yes	Yes						Yes			
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)		87% (119/137)		88% (125/141)		88% (125/141)	
			Bangladesh	0% (0/0)	0% (0/0)	100% (2/2)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	50% (2/4)
							Health centers	0	Health centers	0	Health centers	0	Health centers	0	
							Others	0	Others	0	Others	0	Others	0	
Cameroon	0% (0/6)	100% (6/6)	100% (12/12)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	100% (12/12)			

					Health centers	0	Health centers	0	Health centers	0	Health centers	0	
					Others	0	Others	0	Others	0	Others	0	
					Total	100% (12/12)	Total	100% (12/12)	Total	100% (12/12)	Total	100% (12/12)	
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	100% (20/20)		92% (20/22)
				Animal health centers	0	Animal health centers	0	Animal health centers	100% (2/2)	Animal health centers			
				Others	0	Others	0	Others	0	Others	0% (0/2)		
				Total	55% (12/22)	Total	100% (22/22)	Total	100% (22/22)	Total	92% (20/22)		
DRC	0% (0/0)	0% (0/0)	100% (7/7)	Hospitals	100% (7/7)	Hospitals	100% (7/7)	Hospitals	100% (12/12)	Hospitals	100% (12/12)		100% (12/12)
				Health centers	0	Health centers	0	Health centers	0	Health centers	0		
				Others	0	Others	0	Others	0	Others	0		
				Total	100% (7/7)	Total	100% (7/7)	Total	100% (12/12)	Total	100% (12/12)		
Ethiopia	0% (0/0)	70%	N/A	Hospitals	N/A	Hospitals	0% (0/5)	Hospitals	0% (0/5)	Hospitals	0% (0/5)		0% (0/5)
				Health centers	N/A	Health centers	0	Health centers	0	Health centers	0		
				Others	N/A	Others	0	Others	0	Others	0		
				Total	N/A	Total	0% (0/5)	Total	0% (0/5)	Total	0% (0/5)		
Kenya	100% (16/16)	100% (16/16)	100% (20/20)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	Hospitals	100% (19/19)		100% (20/20)
				Health centers	100% (1/1)	Health centers	100% (1/1)	Health centers	100% (1/1)	Health centers	100% (1/1)		
				Others	0	Others	0	Others	0	Others	0		
				Total	100% (20/20)	Total	100% (20/20)	Total	100% (20/20)	Total	100% (20/20)		
Mali	0% (0/5)	0% (0/5)	94% (15/16)	Hospital	100% (9/9)	Hospital	100% (9/9)	Hospital	100% (9/9)	Hospital	100% (9/9)		100% (16/16)
				Health centers	85.71% (6/7)	Health centers	100% (7/7)	Health centers	100% (7/7)	Health centers	100% (7/7)		
				Others	0	Others	0	Others	0	Others	0		
				Total	93.75% (15/16)	Total	100% (16/16)	Total	100% (16/16)	Total	100% (16/16)		
Mozambique	43% (3/7)	Data not reported	100% (7/7)	Hospital	100% (7/7)	Hospital	100% (7/7)	Hospital	43% (3/7)	Hospital	100% (7/7)		100% (7/7)
				Health centers	0	Health centers	0	Health centers	0 (0/0)	Health centers	0		
				Others	0	Others	100% (7/7)	Others	0 (0/0)	Others	0		
				Total	100% (7/7)	Total	100% (7/7)	Total	43% (3/7)	Total	100% (7/7)		
Nigeria	0% (0/3)	N/A	0% (0/0)	Hospitals	0% (0/3)	Hospitals	16% (1/6)	Hospitals	16% (1/6)	Hospitals	14% (1/7)		14% (1/7)
				Health centers	0	Health centers	0	Health centers	0	Health centers	0		
				Others	0	Others	0	Others	0	Others	0		
				Total	0% (0/3)	Total	16% (1/6)	Total	16% (1/6)	Total	14% (1/7)		
Senegal	0% (0/3)	0% (0/3)	100% (8/8)	Hospitals	100% (8/8)	Health centers	0	Hospitals	61% (8/13)	Hospitals	100% (12/12)	92% (12/13)	

	Tanzania	33% (2/6)	100% (6/6)	100% (10/10)	Health centers	0	Others	0	Health centers	0	Health centers	0% (0/1)	100% (10/10)											
					Others	0	Total	57% (8/14)	Others	0	Others	0												
					Total	100% (8/8)	Hospitals	100% (10/10)	Total	61% (8/13)	Total	92% (12/13)												
					Hospitals	100% (10/10)	Health centers	0	Hospitals	100% (10/10)	Hospitals	100% (10/10)												
					Health centers	0	Others	0	Health centers	0	Health centers	0												
					Others	0	Total	100% (10/10)	Others	0	Others	0												
	Uganda	0% (0/7)	100% (7/7)	100% (13/13)	Hospitals	100% (13/13)	Hospitals	100% (13/13)	Hospitals	100% (13/13)	Hospitals	100% (13/13)	100% (13/13)											
					Health centers	0	Health centers	0	Health centers	0	Health centers	0												
					Others	0	Others	0	Others	0	Others	0												
					Total	100% (13/13)	Total	100% (13/13)	Total	100% (13/13)	Total	100% (13/13)												
					Hospitals	50% (2/4)	Hospitals	50% (2/4)	Hospitals	100% (4/4)	Hospitals	100% (6/6)												
					Health centers	0	Health centers	0	Health centers	0	Health centers	0												
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% (140/126)		98% (139/141)		98% (139/141)										
						Bangladesh	0% (0/0)	0% (0/0)	100% (2/2)	Hospitals	50% (2/4)	Hospitals	50% (2/4)		Hospitals	100% (4/4)	Hospitals	100% (6/6)	100% (6/6)					
										Health centers	0	Health centers	0		Health centers	0	Health centers	0						
										Others	0	Others	50% (2/4)		Others	0	Others	0						
										Total	50% (2/4)	Total	50% (2/4)		Total	100% (4/4)	Total	100% (6/6)						
										Cameroon	0% (0/0)	83% (5/6)	100% (12/12)		Hospitals	100% (12/12)	Hospitals	100% (12/12)		Hospitals	92% (11/12)	Hospitals	100% (12/12)	100% (12/12)
															Health centers	0	Health centers	0		Health centers	0	Health centers	0	
						Others	0	Others	100% (12/12)						Others	0	Others	0						
						Total	100% (12/12)	Total	100% (12/12)						Total	92% (11/12)	Total	100% (12/12)						
						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	100% (20/20)	100% (22/22)	
															Animal health centers	0	Animal health centers	0	Animal health centers	100% (2/2)	Animal health centers			
										Others	0	Others	0		Others	0	Others	100% (2/2)						
Total	73% (16/22)	Total	100% (22/22)	Total	100% (22/22)					Total	100% (22/22)													
DRC	0% (0/0)	0% (0/0)	100% (7/7)	Hospitals	100% (7/7)					Hospitals	100% (7/7)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	100% (12/12)								
				Health centers	0					Health centers	0	Health centers	0	Health centers	0									
				Others	0	Others	0	Others	0	Others	0													

					<u>Total</u>	100% (7/7)		<u>Total</u>	100% (7/7)		<u>Total</u>	100% (12/12)		<u>Total</u>	100% (12/12)	
Ethiopia	0% (0/0)	100%	N/A	Hospitals	N/A	Hospitals	0% (0/5)	Hospitals	100% (5/5)	Hospitals	100% (5/5)	Hospitals	100% (5/5)	100% (5/5)		
				Health centers	N/A	Health centers	0	Health centers	0	Health centers	0					
				Others	N/A	Others	0	Others	0	Others	0					
				<u>Total</u>	N/A	<u>Total</u>	0% (0/5)	<u>Total</u>	100% (5/5)	<u>Total</u>	100% (5/5)	<u>Total</u>	100% (5/5)			
Kenya	0% (0/16)	100% (16/16)	92% (18/20)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	Hospitals	100% (19/19)	100% (20/20)		
				Health centers	100% (1/1)											
				Others	0	Others	0	Others	0	Others	0					
				<u>Total</u>	100% (20/20)	<u>Total</u>	100% (20/20)	<u>Total</u>	100% (20/20)	<u>Total</u>	100% (20/20)	<u>Total</u>	100% (20/20)			
Mali	0% (0/5)	0% (0/5)	75% (12/16)	Hospital	88.89% (8/9)	Hospital	100% (9/9)	Hospital	100% (9/9)	Hospital	100% (9/9)	Hospital	100% (9/9)	100% (16/16)		
				Health centers	85.71% (6/7)	Health centers	100% (7/7)	Health centers	100% (7/7)	Health centers	100% (7/7)					
				Others	0	Others	0	Others	0	Others	0					
				<u>Total</u>	75% (14/16)	<u>Total</u>	100% (16/16)	<u>Total</u>	100% (16/16)	<u>Total</u>	100% (16/16)	<u>Total</u>	100% (16/16)			
Mozambique	43% (3/7)	Data not reported	100% (7/7)	Hospital	100% (7/7)	Hospital	100% (7/7)	Hospital	100% (3/3)	Hospital	100% (7/7)	Hospital	100% (7/7)	100% (7/7)		
				Health centers	0	Health centers	0	Health centers	0 (0/0)	Health centers	0 (0/0)					
				Others	0	Others	0	Others	0 (0/0)	Others	0 (0/0)					
				<u>Total</u>	100% (7/7)	<u>Total</u>	100% (7/7)	<u>Total</u>	100% (3/3)	<u>Total</u>	100% (7/7)	<u>Total</u>	100% (7/7)			
Nigeria	0% (0/3)	N/A	0% (0/3)	Hospitals	33.3% (1/3)	Hospitals	14% (1/7)	Hospitals	28% (2/7)	Hospitals	86% (6/7)	Hospitals	86% (6/7)	86% (6/7)		
				Health centers	0											
				Others	0	Others	0	Others	0	Others	0					
				<u>Total</u>	33.3% (1/3)	<u>Total</u>	14% (1/7)	<u>Total</u>	28% (2/7)	<u>Total</u>	86% (6/7)	<u>Total</u>	86% (6/7)			
Senegal	100% (3/3)	100% (3/3)	100% (8/8)	Hospitals	100% (8/8)	Hospitals	57% (8/14)	Hospitals	61% (8/13)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	92% (12/13)		
				Health centers	0	Health centers	0	Health centers	0	Health centers	0% (0/1)					
				Others	0	Others	0	Others	0	Others	92% (12/13)					
				<u>Total</u>	100% (8/8)	<u>Total</u>	57% (8/14)	<u>Total</u>	61% (8/13)	<u>Total</u>	92% (12/13)	<u>Total</u>	92% (12/13)			
Tanzania	17% (1/6)	100% (6/6)	100% (10/10)	Hospitals	100% (10/10)	100% (10/10)										
				Health centers	0											
				Others	0	Others	100% (10/10)	Others	0	Others	0					
				<u>Total</u>	100% (10/10)	<u>Total</u>	100% (10/10)	<u>Total</u>	100% (10/10)	<u>Total</u>	100% (10/10)	<u>Total</u>	100% (10/10)			

						Hospitals	100%	Hospitals	100%	Hospitals	100%	Hospitals	100%	
						(13/13)	(13/13)	(13/13)	(13/13)	(13/13)	(13/13)			
						Health centers	0	Health centers	0	Health centers	0	Health centers	0	
						Others	0	Others	0	Others	0	Others	0	
						<u>Total</u>	100%	<u>Total</u>	100%	<u>Total</u>	100%	<u>Total</u>	100%	(13/13)
IP 7	# and % of MTaPS-supported facilities with improved hand hygiene compliance*	Annually				73% (103/141)								
	Bangladesh		0	0%	100% (2/2)	Hospitals 100% (4/4) Total 100% (4/4)						100% (4/4)		
	Cameroon		0	0%	100%	Hospitals 92% (11/12) Total 92% (11/12)						92% (11/12)		
	Côte d'Ivoire		0	100%	90% (9/10)	Hospitals 50% (10/20) Health centers 0% (0/2) Total 45% (10/22)						45% (10/22)		
	DRC		0		57% (4/7)	Hospitals 100% (12/12) Total 100% (12/12)						100% (12/12)		
	Kenya		0		100% (20/20)	Hospitals 100% (19/19) Health centers 100% (1/1) Total 100% (20/20)						100% (20/20)		
	Mali		0	0%	94% (15/16)	Hospital 78% (7/9) Health centers 71% (5/7) Total 75% (12/16)						75% (12/16)		
	Mozambique		0		0% (0/7)	Hospitals 43% (3/7) Total 43% (3/7)						43% (3/7)		
	Nigeria		0	N/A	0% (0/3)	Hospitals 14% (1/7) Total 14% (1/7)						14% (1/7)		
	Senegal		0		100% (8/8)	Hospitals 58% (7/12) Health Centers 0% (0/1) Total 58% (7/13)						54% (7/13)		
	Tanzania		0		100% (10/10)	Hospitals 100% (10/10) Total 100% (10/10)						100% (10/10)		
	Uganda		0		100% (7/7)	Hospitals 100% (13/13) Total 100% (13/13)						100% (13/13)		
	IP 8		# and % of MTaPS-supported facilities with improved performance in core IPC components*	Annually				80% (113/141)						80% (113/141)
			Bangladesh		0		100% (2/2)	Hospitals 100% (4/4) Total 100% (4/4)						100% (4/4)
Cameroon		0			100% (12/12)	Hospitals 92% (11/12) Total 92% (11/12)						92% (11/12)		
Côte d'Ivoire		0			80% (8/10)	Hospitals 45% (9/20) Health center 0% (0/2)						41% (9/22)		

						<u>Total</u>	41% (9/22)	
	DRC		0		0% (0/0)	Hospitals	100% (12/12)	100% (12/12)
						<u>Total</u>	100% (12/12)	
	Kenya		0		100% (20/20)	Hospitals	100% (19/19)	100% (20/20)
						Health centers	100% (1/1)	
						<u>Total</u>	100% (20/20)	
	Mali		0		94% (15/16)	Hospital	89% (8/9)	81% (13/16)
						Health centers	71% (5/7)	
						<u>Total</u>	81% (13/16)	
	Mozambique		0		100% (7/7)	Hospitals	100% (7/7)	100% (7/7)
						<u>Total</u>	100% (7/7)	
	Nigeria		0	N/A	0% (0/3)	Hospitals	14% (1/7)	14% (1/7)
						<u>Total</u>	14% (1/7)	
	Senegal		0		100% (8/8)	Hospitals	100% (12/12)	100% (13/13)
						Health Centers	100% (1/1)	
						<u>Total</u>	100% (13/13)	
	Tanzania		0		60% (6/10)	Hospitals	100% (10/10)	100% (10/10)
						<u>Total</u>	100% (10/10)	
	Uganda		0		0% (0/0)	Hospitals	100% (13/13)	100% (13/13)
						<u>Total</u>	100% (13/13)	
	# of policies, legislation, regulations, or operational documents related to antimicrobial stewardship (AMS) developed or updated with MTaPS support		0	5	12		14	14
AS I	Bangladesh	Annually	0	0	0		1	1
	Burkina Faso		0	0	2		N/A	N/A
	Cameroon		0	0	0		0	0
	Côte d'Ivoire		0	1	0		0	0
	DRC		0	1	3		1	1
	Kenya		0	1	3		3	3
	Mali		0	1	N/A		1	1
	Mozambique		0	N/A	1		3	3
	Nigeria		0	N/A	0		1	1
	Senegal		0	0	1		1	1
	Tanzania		0	1	2		1	1
	Uganda		0	0	0		2	2

AS 2	# and % of MTaPS-supported facilities' MTC/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework*	10% (4/39)	81% (25/31)	60% (74/123)	72% (90/125)		63% (94/150)		71% (111/155)		72% (112/154)		72% (112/154)			
	Bangladesh	0% (0/0)	0% (0/0)	0% (0/2)	Hospitals	25% (1/4)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	50% (2/4)			
					Health centers	0	Health Centers	0	Health centers	0	Health centers	0				
					Others	0	Others	0	Others	0	Others	0				
						<u>Total</u>	25% (1/4)	<u>Total</u>	50% (2/4)	<u>Total</u>	50% (2/4)	<u>Total</u>	50% (2/4)			
	Burkina Faso	0% (0/0)	0% (0/0)	25% (3/12)	Hospitals	Data Not Reported	Hospitals	0% (0/8)	Hospitals	0% (0/10)	Hospitals	0% (0/10)	0% (0/10)			
					Health centers		0	Health Centers	0% (0/2)	Health centers	0	Health centers		0		
					Others			0	Others	0	Others	0		Others	0	
						<u>Total</u>			0% (0/10)	<u>Total</u>	0% (0/10)	<u>Total</u>	0% (0/10)	<u>Total</u>	0% (0/10)	
	Cameroon	0% (0/0)	0% (0/0)	92% (11/12)	Hospitals	100% (12/12)	Hospitals		92% (11/12)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	100% (12/12)		
					Health centers	0	Health centers	0	Health centers	0	Health centers	0				
					Others	0	Others	0	Others	0	Others	0				
						<u>Total</u>	100% (12/12)	<u>Total</u>	92% (11/12)	<u>Total</u>	100% (12/12)	<u>Total</u>	100% (12/12)			
	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	100% (20/20)	91% (20/22)			
					Health centers	0	Health centers	0	Health centers	0% (0/2)	Health centers	0% (0/2)				
					Others	0	Others	0	Others	0	Others	0				
						<u>Total</u>	40% (9/22)	<u>Total</u>	45% (10/22)	<u>Total</u>	90% (20/22)	<u>Total</u>	91% (20/22)			
	Ethiopia	0% (0/0)	N/A	N/A	Hospitals	N/A	Hospitals	0% (0/5)	Hospitals	0% (0/5)	Hospitals	0% (0/5)	0% (0/5)			
					Health centers	N/A	Health centers	0	Health centers	0	Health centers	0				
					Others	N/A	Others	0	Others	0	Others	0				
						<u>Total</u>	N/A	<u>Total</u>	0% (0/5)	<u>Total</u>	0% (0/5)	<u>Total</u>	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	100% (12/12)	100% (12/12)			
					Health centers	0	Health centers	0	Health centers	0	Health centers	0				
					Others	0	Others	0	Others	0	Others	0				
						<u>Total</u>	100% (7/7)	<u>Total</u>	100% (7/7)	<u>Total</u>	100% (12/12)	<u>Total</u>	100% (12/12)			
	Kenya	6% (1/16)	100% (18/18)	83% (20/24)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	100% (21/21)			
					Health centers	100% (1/1)	Health centers	100% (1/1)	Health centers	100% (1/1)	Health centers	100% (1/1)				
					Pharmacy	0% (0/2)	Others	0% (0/2)	Pharmacy	0% (0/2)	Pharmacy	0% (0/2)				
					<u>Total</u>	100% (21/23)	<u>Total</u>	91% (21/23)	<u>Total</u>	91% (21/23)	<u>Total</u>	91% (21/23)				

Mali		0% (0/0)	0% (0/0)	56% (9/16)	Hospital	11.11% (1/9)	Hospitals	77% (7/9)	Hospital	100% (9/9)	Hospital	78% (7/9)	75% (12/16)	
					Health centers	0% (0/7)	Health centers	100% (7/7)	Health centers	100% (7/7)	Health centers	71% (5/7)		
					Others	0	Others	0	Others	0	Others	0		
					<u>Total</u>	6% (1/16)	<u>Total</u>	87% (14/16)	<u>Total</u>	100% (16/16)	<u>Total</u>	75% (12/16)		
Mozambique		0% (0/7)	Data not reported	0% (0/7)	Hospitals	71.4% (5/7)	Hospitals	71% (5/7)	Hospitals	14% (1/7)	Hospitals	43% (3/7)	43% (3/7)	
					Health centers	0								
					Others	0	Others	0	Others	0	Others	0		
					<u>Total</u>	71.4% (5/7)	<u>Total</u>	71% (5/7)	<u>Total</u>	14% (1/7)	<u>Total</u>	43% (3/7)		
Nigeria		0% (0/3)	N/A	0% (0/0)	Hospitals	100% (3/3)	Hospitals	14% (1/7)	Hospitals	43% (3/7)	Hospitals	100% (7/7)	100% (7/7)	
					Health centers	0								
					Others	0	Others	0	Others	0	Others	0		
					<u>Total</u>	100% (3/3)	<u>Total</u>	14% (1/7)	<u>Total</u>	43% (3/7)	<u>Total</u>	100% (7/7)		
Senegal		0% (0/0)	0% (0/0)	0% (0/8)	Hospitals	100% (8/8)	Hospitals	0% (0/14)	Hospitals	0% (0/14)	Hospitals	0% (0/13)	0% (0/14)	
					Health centers	0								
					Others	0	Others	0	Others	0	Others	0		
					<u>Total</u>	100% (8/8)	<u>Total</u>	0% (0/14)	<u>Total</u>	0% (0/14)	<u>Total</u>	0% (0/13)		
Tanzania		0% (0/6)	0% (0/6)	20% (2/10)	Hospitals	100% (10/10)	100% (10/10)							
					Health centers	0								
					Others	0	Others	0	Others	0	Others	0		
					<u>Total</u>	100% (10/10)								
Uganda		43% (3/7)	100% (7/7)	100% (13/13)	Hospitals	100% (13/13)	100% (13/13)							
					Health centers	0								
					Others	0	Others	0	Others	0	Others	0		
					<u>Total</u>	100% (13/13)								
AS 3	# of persons trained in AMS topics with MTaPS support	0	436	4,830	696		1,029		2,042		284		4,051	
	Bangladesh	Quarterly	0	0	0	Female	0	Female	60	Female	N/A	Female	N/A	420
						Male	0	Male	360	Male				
						Unknown	0	Unknown	0	Unknown				
						<u>Total</u>	0	<u>Total</u>	420	<u>Total</u>				
	Burkina Faso	Quarterly	0	0	97	Female	0	Female	0	Female	N/A	Female	0	86
Male						0	Male	0	Male					
Unknown						65	Unknown	21	Unknown					
					<u>Total</u>	65	<u>Total</u>	21	<u>Total</u>					

Cameroon		0	0	222	Female	8	Female	0	Female	0	Female	0	17	
					Male	9	Male	0	Male	0	Male	0		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	17	<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	0		
Côte d'Ivoire		0	0	237	Female	0	Female	24	Female	74	Female	7	421	
					Male	0	Male	39	Male	243	Male	34		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	0	<u>Total</u>	63	<u>Total</u>	317	<u>Total</u>	41		
DRC		0	0	274	Female	0	Female	21	Female	13	Female	0	91	
					Male	0	Male	37	Male	20	Male	0		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	0	<u>Total</u>	58	<u>Total</u>	33	<u>Total</u>	0		
Ethiopia		0	0	N/A	Female	N/A	Female	13	Female	6	Female	31	180	
					Male		Male	18	Male	18	Male	94		
					Unknown		Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>		<u>Total</u>	31	<u>Total</u>	24	<u>Total</u>	125		
Kenya		0	165	1,333	Female	103	Female	87	Female	276	Female	N/A	869	
					Male	58	Male	50	Male	294	Male			
					Unknown	0	Unknown	0	Unknown	0	Unknown			
					<u>Total</u>	161	<u>Total</u>	137	<u>Total</u>	571	<u>Total</u>			
Mali		0	0	136	Female	40	Female	0	Female	N/A	Female	N/A	49	
					Male	9	Male	0	Male					
					Unknown	0	Unknown	0	Unknown					
					<u>Total</u>	49	<u>Total</u>	0	<u>Total</u>					
Mozambique		0	0	0	Female	3	Female	4	Female	3	Female	4	34	
					Male	4	Male	5	Male	5	Male	6		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	7	<u>Total</u>	9	<u>Total</u>	8	<u>Total</u>	10		
Nigeria		0	N/A	18	Female	10	Female	2	Female	32	Female	7	108	
					Male	7	Male	21	Male	22	Male	7		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	17	<u>Total</u>	23	<u>Total</u>	54	<u>Total</u>	14		
Senegal		0	0	0	Female	0	Female	0	Female	0	Female	0	0	
					Male	0	Male	0	Male	0	Male	0		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	0	<u>Total</u>	0		
Tanzania		0	201	0	Female	0	Female	N/A	Female	N/A	Female	N/A	N/A	
					Male	0	Male				Male			
					Unknown	0	Unknown				Unknown			
					<u>Total</u>	0	<u>Total</u>				<u>Total</u>			
Uganda		0	70	2,513	Female	204	Female	108	Female	564	Female	39	1,776	
					Male	176	Male	159	Male	471	Male	55		
					Unknown	0	Unknown	0	Unknown	0	Unknown	0		
					<u>Total</u>	380	<u>Total</u>	267	<u>Total</u>	1,035	<u>Total</u>	94		
AS 4	# and % of MTaPS-supported facilities implementing CQI to improve AMS*	Quarterly	49% (24/49)	75% (41/55)	67% (79/118)	61% (74/122)	60% (89/150)	66% (103/145)	68% (106/149)	71% (106/150)				

Bangladesh		0% (0/0)	0% (0/0)	0% (0/2)	Hospitals	0% (0/4)	Hospitals	25% (1/4)	Hospitals	24% (1/4)	Hospitals	50% (2/4)	50% (2/4)
					Health centers	0	Health centers	0	Health centers	0	Health centers	0	
					Others	0	Others	0	Others	0	Others	0	
					<u>Total</u>	0% (0/4)	<u>Total</u>	25% (1/4)	<u>Total</u>	24% (1/4)	<u>Total</u>	50% (2/4)	
Burkina Faso		0% (0/0)	100% (5/5)	25% (3/12)	Hospitals	Data Not Reported	Hospitals	0% (0/10)	Hospitals	N/A	Hospitals	0% (0/10)	0% (0/10)
					Health centers		0	Health centers	0		Health centers	0	
					Others		0	Others	0		Others	0	
					<u>Total</u>		0% (0/10)	<u>Total</u>	0% (0/10)		<u>Total</u>	0% (0/10)	
Cameroon		0% (0/0)	0% (0/6)	92% (11/12)	Hospitals	100% (12/12)	Hospitals	92% (11/12)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	100% (12/12)
					Health centers	0	Health centers	0	Health centers	0	Health centers	0	
					Others	0	Others	0	Others	0	Others	0	
					<u>Total</u>	100% (12/12)	<u>Total</u>	92% (11/12)	<u>Total</u>	100% (12/12)	<u>Total</u>	100% (12/12)	
Côte d'Ivoire		0% (0/0)	100% (2/2)	75% (9/12)	Hospitals	40% (9/22)	Hospitals	45% (10/22)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	91% (20/22)
					Health centers	0	Health centers	0	Health centers	0 (0/2)	Health centers	0% (0/2)	
					Others	0	Others	0	Others	0	Others	0	
					<u>Total</u>	40% (9/22)	<u>Total</u>	45% (10/22)	<u>Total</u>	90% (20/22)	<u>Total</u>	91% (20/22)	
DRC		0% (0/0)	100% (3/3)	100% (7/7)	Hospitals	100% (7/7)	Hospitals	100% (7/7)	Hospitals	100% (12/12)	Hospitals	100% (12/12)	100% (12/12)
					Health centers	0	Health centers	0	Health centers	0	Health centers	0	
					Others	0	Others	0	Others	0	Others	0	
					<u>Total</u>	100% (7/7)	<u>Total</u>	100% (7/7)	<u>Total</u>	100% (12/12)	<u>Total</u>	100% (12/12)	
Ethiopia		0% (0/30)	13% (4/30)	N/A	Hospitals	N/A	Hospitals	0% (0/5)	Hospitals	0% (0/5)	Hospitals	N/A	N/A
					Health centers		0	Health centers	0	Health centers	0		
					Pharmacy		0	Pharmacy	0	Pharmacy	0		
					<u>Total</u>		0% (0/5)	<u>Total</u>	0% (0/5)	<u>Total</u>	0% (0/5)		
Kenya		100% (18/18)	100% (18/18)	92% (22/24)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	91% (21/23)
					Health centers	100% (1/1)	Health centers	100% (1/1)	Health centers	100% (1/1)	Health centers	100% (1/1)	
					Pharmacy	0% (0/2)	Pharmacy	0% (0/2)	Pharmacy	0% (0/2)	Pharmacy	0% (0/2)	
					<u>Total</u>	91% (21/23)	<u>Total</u>	91% (21/23)	<u>Total</u>	91% (21/23)	<u>Total</u>	91% (21/23)	
Mali		0% (0/5)	0% (0/5)	19% (3/16)	Hospital	11.11% (1/9)	Hospitals	77% (7/9)	Hospital	100% (9/9)	Hospital	78% (7/9)	75% (12/16)
					Health centers	0% (0/7)	Health centers	100% (7/7)	Health centers	100% (7/7)	Health centers	71% (5/7)	
					Others	0	Others	0	Others	0	Others	0	
					<u>Total</u>	6.25% (1/16)	<u>Total</u>	87% (14/16)	<u>Total</u>	100% (16/16)	<u>Total</u>	75% (12/16)	
Mozambique		0% (0/7)	Data not reported	71% (5/7)	Hospital	72% (5/7)	Hospital	0% (0/7)	Hospital	14% (1/7)	Hospital	100% (7/7)	100% (7/7)
					Health centers	0	Health centers	0	Health centers	0 (0/0)	Health centers	0	
					Others	0	Others	0	Others	0% (0/1)	Others	0	

						<u>Total</u>	72% (5/7)	<u>Total</u>	0% (0/7)	<u>Total</u>	12% (1/8)	<u>Total</u>	100% (7/7)			
Nigeria	0% (0/3)	N/A	0% (0/3)	N/A	Hospitals	0% (0/3)	Hospitals	14% (1/7)	Hospitals	14% (1/7)	Hospitals	14% (1/7)	Hospitals	14% (1/7)	14% (1/7)	
					Health centers	0										
					Others	0	Others	0	Others	0	Others	0				
					<u>Total</u>	0%	<u>Total</u>	14% (1/7)	<u>Total</u>	14% (1/7)	<u>Total</u>	14% (1/7)				
Senegal	0% (0/3)	0% (0/3)	N/A	N/A	Hospitals	0% (0/8)	Hospitals	7% (1/14)	Hospitals	0% (0/14)	Hospitals	0% (14/14)	Hospitals	0% (14/14)	0% (0/14)	
					Health centers	0										
					Others	0	Others	0	Others	0	Others	0				
					<u>Total</u>	0% (0/8)	<u>Total</u>	7% (1/14)	<u>Total</u>	0% (0/14)	<u>Total</u>	0% (0/14)				
Tanzania	0% (0/6)	100% (6/6)	60% (6/10)	60% (6/10)	Hospitals	60% (6/10)	Hospitals	60% (6/10)	Hospitals	100% (10/10)	Hospitals	60% (6/10)	Hospitals	60% (6/10)	60% (6/10)	
					Health centers	0										
					Others	0	Others	0	Others	0	Others	0				
					<u>Total</u>	60% (6/10)	<u>Total</u>	60% (6/10)	<u>Total</u>	100% (10/10)	<u>Total</u>	60% (6/10)				
Uganda	86% (6/7)	100% (7/7)	100% (13/13)	100% (13/13)	Hospitals	100% (13/13)	Hospitals	100% (13/13)	100% (13/13)							
					Health centers	0										
					Others	0	Others	0	Others	0	Others	0				
					<u>Total</u>	100% (13/13)										
AS 5	#/% of MTaPS-supported facilities that have documented evidence of improvement in antimicrobial medicines prescribing or use*	Annually													37% (57/154)	
	Bangladesh		0%	N/A	0% (0/2)	Hospitals		Hospitals		Hospitals	50% (2/4)	Hospitals	50% (2/4)	Hospitals	50% (2/4)	50% (2/4)
						<u>Total</u>		<u>Total</u>		<u>Total</u>	50% (2/4)	<u>Total</u>	50% (2/4)			
	Burkina Faso		0%	0%	0% (0/12)	Hospitals		Hospitals		Hospitals	0% (0/10)	Hospitals	0% (0/10)	Hospitals	0% (0/10)	0% (0/10)
						<u>Total</u>		<u>Total</u>		<u>Total</u>	0% (0/10)	<u>Total</u>	0% (0/10)			
	Cameroon		0%	0%	0% (0/11)	Hospitals		Hospitals		Hospitals	92% (11/12)	Hospitals	92% (11/12)	Hospitals	92% (11/12)	92% (11/12)
						<u>Total</u>		<u>Total</u>		<u>Total</u>	92% (11/12)	<u>Total</u>	92% (11/12)			
	Côte d'Ivoire		0%	0%	0% (0/10)	Hospitals		Hospitals		Hospitals	15% (3/20)	Hospitals	15% (3/20)	Hospitals	15% (3/20)	14% (3/22)
						Health centers		Health centers		Health centers	0% (0/2)	Health centers	0% (0/2)			
						<u>Total</u>		<u>Total</u>		<u>Total</u>	14% (3/22)	<u>Total</u>	14% (3/22)			
DRC	0%	0%	0% (0/7)	Hospitals		Hospitals		Hospitals	58% (7/12)	Hospitals	58% (7/12)	Hospitals	58% (7/12)	58% (7/12)		
				<u>Total</u>		<u>Total</u>		<u>Total</u>	58% (7/12)	<u>Total</u>	58% (7/12)					
Ethiopia	0%	0%	N/A	Hospitals		Hospitals		Hospitals	0% (0/5)	Hospitals	0% (0/5)	Hospitals	0% (0/5)	0% (0/5)		
				<u>Total</u>		<u>Total</u>		<u>Total</u>	0% (0/5)	<u>Total</u>	0% (0/5)					
Kenya	0%	100%	92% (22/24)	Hospitals		Hospitals		Hospitals	100% (20/20)	Hospitals	100% (20/20)	Hospitals	100% (20/20)	91% (21/23)		
				Health centers		Health centers		Health centers	100% (1/1)	Health centers	100% (1/1)					

						Pharmacies	0% (0/2)		
						<u>Total</u>	91% (21/23)		
	Mali		0%	N/A	13% (2/16)	Hospital	0% (0/9)		0%
						Health centers	0% (0/7)		(0/16)
						<u>Total</u>	0% (0/16)		
	Mozambique		0%	N/A	71% (5/7)	Hospitals	28% (2/7)		28%
						<u>Total</u>	28% (2/7)		(2/7)
	Nigeria		0%	N/A	0% (0/3)	Hospitals	0% (0/7)		0%
						<u>Total</u>	0% (0/7)		(0/7)
	Senegal		0%	0%	10	Hospitals	0% (0/13)		0%
						<u>Total</u>	0% (0/13)		(0/13)
	Tanzania		0%	100%	60% (6/10)	Hospitals	70% (7/10)		70%
						<u>Total</u>	70% (7/10)		(7/10)
	Uganda		0%	0%	0% (0/7)	Hospitals	31% (4/13)		31%
						<u>Total</u>	31% (4/13)		(4/13)
DRC 1	# of quality assured MNCH, RH/FP, and TB medicines products registered with MTaPS support	Semi-annually	0	0	29	23	5		28
DRC 4	% of facilities implementing appropriate storage of oxytocin	Quarterly				69.4% (50/72)	75% (54/72)	76% (54/72)	75% (54/72)
	DRC					69.4% (50/72)	75% (54/72)	76% (54/72)	75% (54/72)
DRC 5	# of DPS and/or IPS using the updated directory of registered medicines	Semi-annually	0	0	7	4	N/A		4
DRC 8	# of health zones involved in provincial quantification exercises with MTaPS support	Semi-annually	0	0	19	10	N/A		10
DRC 9	# of MNCH treatment protocols or job aids disseminated to HFs with MTaPS support	Semi-annually	0	0	0	0	N/A		0
DRC 10	# of contraceptive kits (reduced FP package) distributed to community care sites (CSS) in MTaPS-supported HZs	Semi-annually	0	0	0	0	0		0

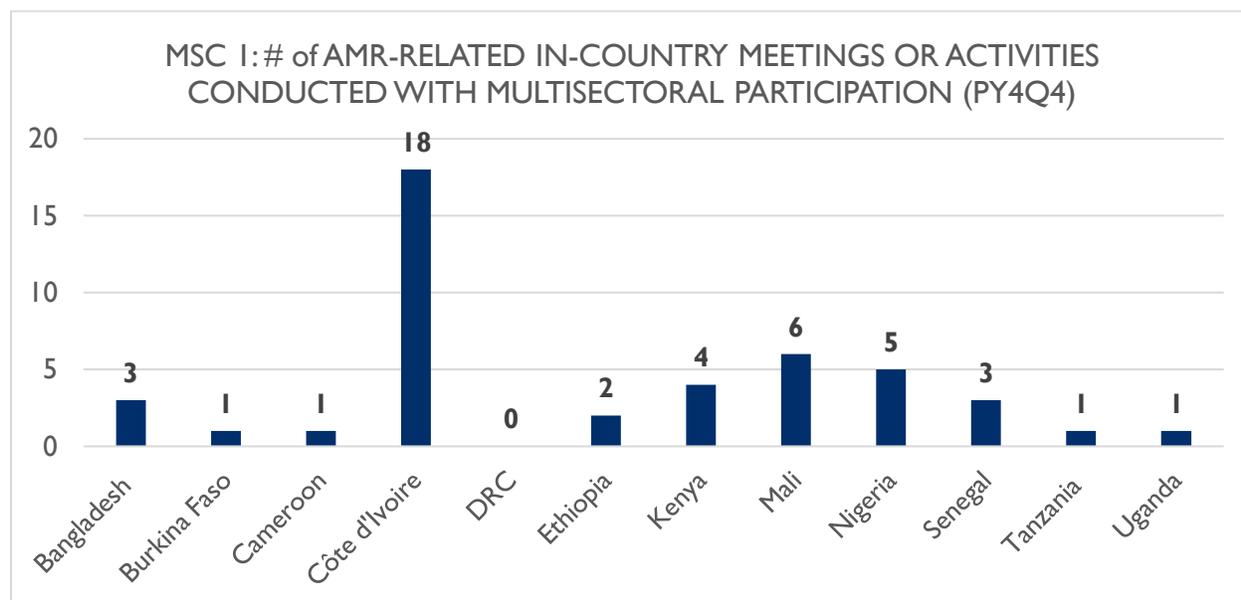
DRC 11	% of CSS reporting contraceptive data to health facilities in MTAPS-supported HZs	Semi-annually	0%	0	0% (0/12)	0%	0%
DRC 12	# of mini awareness raising campaigns for active detection of TB and adherence to TB treatment supported by MTaPS	Semi-annually	0	0	0	2	0
BG 1	% of procurement packages of DGFP and DGHS that are on schedule	Annually	0	0	82%	50% (3/6)	50% (3/6)
BG 4	% of target health facilities that keep complete TB patient information (as per national standards)	Annually	0	N/A	44%	71% (64/90)	71% (64/90)
DRC 2	# of CBO members that have been capacitated to participate in oversight of pharmaceutical management for MNCH commodities with MTaPS support	Annually	0	0	350	344	344
IN 4.3.1a	Number of analytical products developed and used to inform policies or guidance based on evidence	Annually	0	N/A	N/A	1	1
IN 4.3.3b	Number of health personnel receiving capacity development support to optimize the management of health services	Annually	0	N/A	N/A	242	242

*Annual value is the Project Year cumulative value summed across countries (not quarters). This is to not double-count the same facilities across quarters.

ANNEX 2: GLOBAL HEALTH SECURITY AGENDA – QUARTER PROGRESS FOR FY22Q4

SUMMARY OF ACTIVITIES FOR THIS QUARTER (FY22Q4)

SELECTED MTAPS GHSA INDICATOR PROGRESS



Annex Figure 1. MSC I. # of AMR-related in-country meetings or activities conducted with multisectoral participation in PY4Q4

Annex Table 2.I IP3: % of MTaPS-supported facilities that are using standardized tools for monitoring IPC and informing programmatic improvement

Quarter	Country											
	Bangladesh	Cameroon	Côte d'Ivoire	DRC*	Ethiopia**	Kenya	Mali	Mozambique^	Nigeria***	Senegal****	Tanzania	Uganda
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)
PY4Q4	100% (4/4)	100% (12/12)	100% (22/22)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (7/7)	100% (7/7)	100% (13/13)	100% (10/10)	100% (13/13)

* Five facilities added in PY4 Q3.

**In PY3 activities were suspended. In PY4Q1-Q2 facilities were selected but work had not started as the workplan had not been approved.

*** In Q2, two of the initial three facilities were dropped due to lack of support from the MoH and 6 facilities were identified to replace them. IPC team started the implementation of its work plan in one facility following the completion of capacity training for its IPC team in PY4 Q1.

**** In PY4 Q3, one facility was removed as the hospital temporarily closed.

^ In PY4 Q3, a new IPC coordinator was hired and could only support 3 health facilities in IPC the other 4 facilities were added back in Q4.

Annex Table 2.2. IP5. % of MTaPS-supported facilities implementing continuous quality improvement (CQI) to improve IPC

Quarter	Country											
	Bangladesh	Cameroon	Côte d'Ivoire	DRC*	Ethiopia**	Kenya	Mali	Mozambique^	Nigeria***	Senegal****	Tanzania	Uganda
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)	14% (1/7)	61% (8/13)	100% (10/10)	100% (13/13)
PY4Q4	50% (2/4)	100% (12/12)	92% (20/22)	100% (12/12)	0% (0/5)	100% (20/20)	100% (16/16)	100% (7/7)	14% (1/7)	92% (12/13)	100% (10/10)	100% (13/13)

* Five facilities added in PY4 Q3.

** In PY3 activities were suspended. In PY4Q1-Q2 facilities were selected but work had not started as the workplan had not been approved. Q3 and Q4 were delayed in beginning interventions.

*** In Q2, two of the initial three facilities were dropped due to lack of support from the MoH and 6 facilities were identified to replace them. IPC team started the implementation of its work plan in one facility following the completion of capacity training for its IPC team in PY4 Q1.

**** In PY4 Q3, one facility was removed as the hospital temporarily closed.

^ In PY4 Q3, a new IPC coordinator was hired and could only support 3 health facilities in IPC the other 4 facilities were added back in Q4.

Annex Table 2.3. IP6. % of MTaPS-supported facilities with functional IPC committees

Quarter	Country											
	Bangladesh	Cameroon	Côte d'Ivoire	DRC*	Ethiopia**	Kenya	Mali	Mozambique^	Nigeria***	Senegal****	Tanzania	Uganda
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)
PY4Q4	100% (4/4)	100% (12/12)	100% (22/22)	100% (12/12)	100% (5/5)	100% (20/20)	100% (16/16)	100% (7/7)	86% (6/7)	92% (12/13)	100% (10/10)	100% (13/13)

* Five facilities added in PY4 Q3.

** In PY3 activities were suspended. In PY4Q1-Q2 facilities were selected but work had not started as the workplan had not been approved.

*** In Q2, two of the initial three facilities were dropped due to lack of support from the MoH and 6 facilities were identified to replace them. IPC committees at supported facilities 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.

**** In PY4 Q3, one facility was removed as the hospital temporarily closed.

^ In PY4 Q3, a new IPC coordinator was hired and could only support 3 health facilities in IPC the other 4 facilities were added back in Q4.

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

Quarter	Country												
	Bangladesh	Burkina Faso*	Cameroon	Côte d'Ivoire	DRC**	Ethiopia***	Kenya	Mali****	Mozambique	Nigeria^	Senegal^^	Tanzania	Uganda
PY4Q1	25% (1/4)	0% (0/10)	100% (12/12)	40% (9/22)	100% (7/7)	-	91% (21/23)	6% (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)	14% (2/7)	43% (3/7)	0% (0/14)	100% (10/10)	100% (13/13)
PY4Q4	50% (2/4)	0% (0/10)	100% (12/12)	90% (20/22)	100% (12/12)	0% (0/5)	91% (21/23)	75% (12/16)	43% (3/7)	100% (7/7)	0% (0/14)	100% (10/10)	100% (13/13)

* MTaPS Burkina Faso harmonized action plans for all hospitals. Indicator related activities began in Q3 however DTCs did not function as planned and improvement plans and monitoring frameworks were not implemented.

**Five facilities added in PY4 Q3.

*** In PY3 activities were suspended. In PY4Q3 facilities were selected but work had not started as the workplan had not been approved. In Q4, MTaPS identified gaps in AMS including a lack of AMS committees, 4/5 hospitals have established or reinstated their committees however improvement plans or frameworks have yet to be developed.

Five facilities added in PY4 Q3.

**** In Q4, MTaPS Mali implemented virtual supportive supervision visits, however 4 facilities did not attend thus no progress/data was obtained for these facilities.

^ In Q2, two of the initial three facilities were dropped due to lack of support from the MoH and 6 facilities were identified to replace them.

^^ MTaPS Senegal has prioritized IPC activities. AMS activities will begin in PY5Q1.

Annex Table 2.5. AS4. % of MTaPS-supported facilities implementing CQI to improve AMS

Quarter	Country												
	Bangladesh	Burkina Faso*	Cameroon	Côte d'Ivoire	DRC**	Ethiopia***	Kenya	Mali	Mozambique	Nigeria****	Senegal^	Tanzania	Uganda
PY4Q1	0% (0/4)	0% (0/10)	100% (12/12)	40% (9/22)	100% (7/7)	-	91% (21/23)	6% (3/16)	0% (5/7)	0% (0/3)	0% (0/14)	60% (6/10)	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)	0% (5/7)	14% (1/7)	0% (0/14)	60% (6/10)	100% (13/13)
PY4Q3	25% (1/4)	0% (0/10)	100% (12/12)	91% (20/22)	100% (12/12)	0% (0/5)	91% (21/23)	100% (16/16)	14% (1/7)	14% (1/7)	0% (0/14)	60% (6/10)	100% (13/13)
PY4Q4	50% (2/4)	0% (0/10)	100% (12/12)	91% (20/22)	100% (12/12)	0% (0/5)	91% (21/23)	75% (12/16)	100% (7/7)	14% (1/7)	0% (0/14)	60% (6/10)	100% (13/13)

* Burkina Faso harmonized action plans for all hospitals. Indicator related activities began in Q3 however DTCs did not function as planned and CQI to improve AMS did not begin.

** Five facilities added in PY4 Q3.

*** In PY3 activities were suspended. In PY4Q3 facilities were selected but work had not started as the workplan had not been approved. In Q4, MTaPS identified gaps in AMS including a lack of AMS committees, 4/5 hospitals have established or reinstated their committees however CQI to improve AMS did not begin.

**** In Q2, two of the initial three facilities were dropped due to lack of support from the MoH and 6 facilities were identified to replace them. Only one facility has begun AMS interventions, other facilities are delayed due to trainings and reprioritization.

^ MTaPS Senegal has prioritized IPC activities. AMS activities will begin in PY5Q1.

Progress on WHO Benchmark actions (JEE Scores)

Data for WHO Benchmark actions are in the process of being validated. Validated data through September 2022 will be available in the MTaPS PY5Q1 report.

ANNEX 3: MONTHLY COVID-19 INDICATORS, QUARTER 4, YEAR 4

Annex Table 3.1: Number of staff and volunteers trained on COVID-19 vaccine-related topics with MTaPS support (COV 2. (CVI.3-3.))

Portfolio/ Disaggregation	Country	July – September 2022
	Bangladesh	0*
	Burkina Faso	0*
	Cameroon	0*
	Côte d'Ivoire	147
	Kenya	98
	Mali	71
	Mozambique	0*
	Nigeria	461
	Philippines	42
	Rwanda	10
	Senegal	651
	Tanzania	0*
	Total	1,480
Sex	Male	675
	Female	805
	Unknown sex	0
Technical area	Storage, handling, delivery, and waste management of COVID-19 vaccines	1,146
	Planning and organizing COVID-19 vaccination sessions	461
	AEFI monitoring for COVID-19 vaccination	630
	Recording and monitoring COVID-19 vaccination	574
	Communication with the community about COVID-19 vaccination	461

*Disaggregation by technical area for training staff and volunteers is not exclusive of each other.

* No new staff trained this quarter on COVID-19 related topics.

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	July – September 2022
	Bangladesh	0
	Burkina Faso	0
	Côte d'Ivoire	0
	Kenya	0
	Mali	0
	Mozambique	0
	Philippines	0
	Rwanda	0
	Senegal	0
	Total	0*

*Data is not available on multisectoral coordination mechanisms. In Senegal, multisectoral coordination mechanisms for COVID-19 vaccination are only available from MOH, no other sectors are involved.

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	July – September 2022
	Bangladesh	39
	Cameroon	0
	Côte d'Ivoire	0
	Kenya	32
	Mali	0
	Senegal	329
	Tanzania	73
	Total	473

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	July – September 2022
	Bangladesh	117
	Cameroon	0*
	Côte d'Ivoire	0*
	Kenya	194
	Mali	0*
	Senegal	651
	Tanzania	254
	Total	1,216
Sex	Male	557
	Female	659
	Unknown sex	0
Trainee Category	HCW	893
	Non-HCW	323

*No activity planned for Mali and Côte d'Ivoire. Cameroon did not have any training scheduled in July 2022. A consultant has been hired and is onboarded and activities will start in Cameroon in the next quarter.

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	July – September 2022
	Bangladesh	0*
	Burkina Faso	0*
	Cameroon	0*
	Côte d'Ivoire	0*
	Kenya	3
	Mali	0*
	Mozambique	0*
	Philippines	0*
	Rwanda	1
	Senegal	6
	Tanzania	0
Total		10
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	10
	Vaccine introduction (incl., PV)	0

*No new policies, protocols, standards and guidelines developed or adapted by MTAPS support in this quarter. In Mali, SOPs and a technical sheet has been developed for waste management following COVID-19 vaccination. In Cameroon, a waste management guideline as planned for this year, has not yet been implemented in this quarter because staff was recruited in August 2022.

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 (COVI (CV.1.5-9))

Portfolio/ Disaggregation	Country	July – September 2022
	Bangladesh	208
	Côte d'Ivoire	20
	Kenya	34
	Mali	33
	Mozambique	0
	Nigeria	1
	Rwanda	0
	Tanzania	312
	Senegal	0
	Total	608
USG Support*	Direct support	1
	Indirect support	4
Severity of event**	Minor	252
	Moderate	0
	Serious/severe**	7

*Data on 'type of USG support not available on Rwanda, Mozambique and Senegal.

** In Kenya, data on severity of events not available from government, in Senegal data is not collected. In Mozambique and Rwanda, data collection on severity of event was not planned.

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. (0.7))

Portfolio/ Disaggregation	Country	July – September 2022
	Bangladesh	0
	Côte d'Ivoire	0
	Kenya	0
	Mali	0
	Mozambique	0
	Rwanda	0
	Senegal	0
	Total	0*
Technical area	Establishing surveillance systems	0
	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

*No new tools were developed, adapted, or disseminated this quarter with MTaPS support.

Annex Table 3.8. Country has developed or adapted COVID-19 vaccine microplans with MTaPS support (COV 8. (C.1))

Country	July – September 2022
Bangladesh	No
Burkina Faso	No*
Côte d'Ivoire	Yes
Kenya	Yes
Senegal	Yes

*COVID-19 vaccine microplan was finalized in Burkina Faso before December 2021.

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	July – September 2022
Bangladesh	Yes
Côte d'Ivoire	No
Kenya	Yes
Mali	No
Mozambique	No
Rwanda	Yes
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	July – September 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	July – September 2022
Côte d'Ivoire	No
Kenya	N/A
Philippines	Yes
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	July – September 2022
Cameroon	70%
Côte d'Ivoire	42%
Kenya	133%*
Senegal	92%

*Kenya exceeded its original target of 24 health facilities. From July to September, 2022 Kenya ensured compliance in 32 facilities, therefore, reaching 133% of its original target.

Annex Table 3.13. Number of COVID-19 vaccines safety surveillance reports produced under MTaPS support (JO7)

Country	July – September 2022
Jordan	0

Annex Table 3.14. Number of health workers who are remunerated by MTaPS to support workload required for COVID-19 vaccine delivery in the reporting period (COV 14 (CV.1.3-4))

Portfolio/ Disaggregation	Country and Cadre	July – September 2022
Country	Cameroon	0
	Côte d'Ivoire	646
	Nigeria	78
Total		724
Cadre	Clinical	53
	Community/Law	0
	Data Management	167
	Supervision and Logistics	504

Annex Table 3.15. Number of vaccination sites supported by MTaPS during the reporting period (COV 15 (CV.1.4-5))

Portfolio/ Disaggregation	Country and Type	July – September 2022
Country	Cameroon	0
	Côte d'Ivoire	7,197
	Nigeria	21
	Senegal	28
Total		7,246
Type	Fixed site	2,508
	Community-based outreach vaccination sites	4,738
	Mobile team (or clinic) or transit team strategy	0
	Mass vaccination sites/campaigns	0

Annex Table 3.16.* Number of people who have received a first dose of an approved COVID-19 vaccine (COV-1) with MTAPS direct support (COV 16 (CV.1.4-6)**

Portfolio/ Disaggregation	Country, vaccine Brand and Sex	July – September 2022
	Nigeria	2,875
	Total	2,875
Vaccine Brand	Moderna	0
	Pfizer	654
	Astra Zeneca	0
	Janssen	2,221
Sex	Male	1,502
	Female	1,373
	Unknown sex	0

*** Indicator added as Nigeria has started reporting on them since this quarter.

Annex Table 3.17.* Number of people who received a last recommended dose of primary series of an approved COVI-19 vaccine (COV – 17 (CV. 1.4.7) with MTAPS direct support**

Portfolio/ Disaggregation	Country, vaccine brand and sex	July – September 2022
	Nigeria	209
	Total	209
Vaccine Brand	Moderna	0
	Pfizer	208
	Astra Zeneca	1
	Janssen	0
Sex	Male	87
	Female	122
	Unknown sex	0

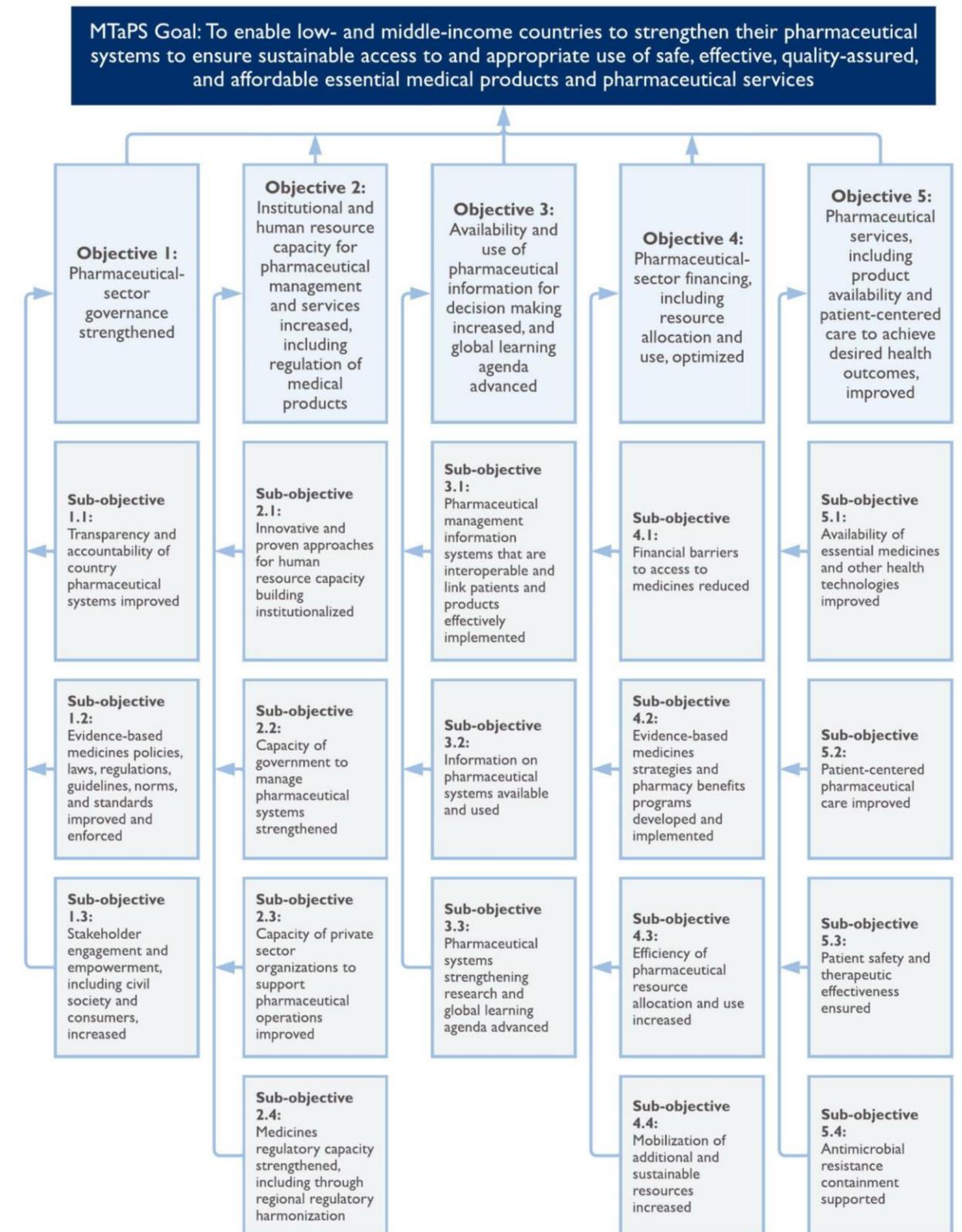
*** Indicator added as Nigeria has started reporting on them since this quarter.

Annex Table 3.18.* Number of people who received a booster dose of primary series of an approved COVID-19 vaccine (COV -2,3,4) with MTaPS support (COV – 17 (CV. 1.4.8)**

Portfolio/ Disaggregation	Country, vaccine brand and sex	July – September 2022
	Nigeria	201
	Total	201
Vaccine Brand	Moderna	0
	Pfizer	161
	Astra Zeneca	0
	Janssen	40
Sex	Male	96
	Female	105
	Unknown sex	0

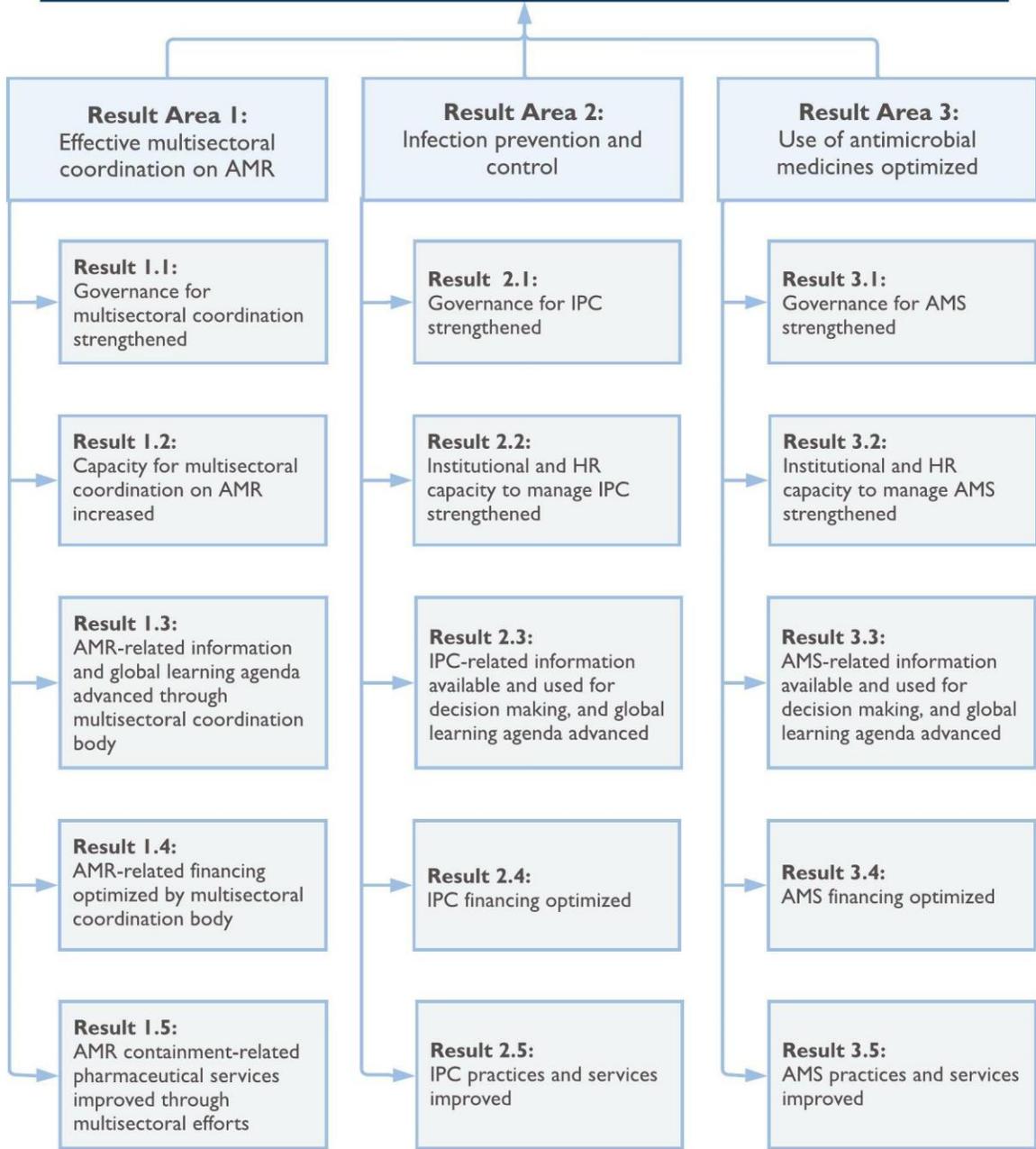
*** Indicator added as Nigeria has started reporting on them since this quarter.

ANNEX 4: MTAPS RESULTS FRAMEWORK



ANNEX 5: GHSA RESULTS FRAMEWORK

MTaPS GHSA Goal: Support antimicrobial resistance containment: Slow the emergence of resistant bacteria and prevent the spread of resistant infections



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

