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

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FISCAL YEAR 2022 QUARTER 1 (OCTOBER–DECEMBER 2021) REPORT

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FISCAL YEAR 2022
QUARTER 1
(OCTOBER–DECEMBER 2021) REPORT

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Project Overview

Program Name:		USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program
Reporting Period:		Fiscal year (FY) 2022 Quarter 1 (October-December 2021)
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, NEPAD
	Global Expert Partners:	Brandeis University, Celsian Consulting, Deloitte USA, Duke-National University of Singapore, El Instituto de Evaluacion Technologica en Salud, IC Consultants, MedSource, IQVIA, University of Washington
	Capacity Resource Partners:	African Health Economics and Policy Association, Ecumenical Pharmaceutical Network, U3 SystemsWork, University of Ibadan, African Collaborating Centre for Pharmacovigilance and Surveillance, Kilimanjaro School of Pharmacy, Muhimbili University, Pharmaceutical Systems Africa
	Collaborators:	International Pharmaceutical Federation, Howard University, University of Notre Dame, WHO, World Bank

Recommended Citation

2021. *USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program: Quarterly Report Fiscal Year 2022 Quarter 1 (October-December 2021).* Submitted to the U.S. Agency for International Development by the USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program. Arlington, VA: Management Sciences for Health, Inc.

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

ACRONYMS AND ABBREVIATIONS

ACIPC	Advisory Committee for Infection Prevention and Control
ADDO	accredited drug dispensing outlet
ADR	adverse drug reaction
aDSM	active TB drug safety monitoring and management
AE	Adverse Event
AEFI	adverse events following immunization
AFROHUN	Africa One Health University Network
AMDF	African Medical Devices Forum
AMR	antimicrobial resistance
AMRH	African Medicines Regulatory Harmonization
AMS	antimicrobial stewardship
ANARME, PI	Autoridade Nacional Reguladora de Medicamentos de Moçambique, Public Institute
ANEH	National Hospital Evaluation Agency
AO	Administrative Order
APHA	American Public Health Association
ARC	antimicrobial resistance containment
ARPA	American Rescue Plan Act
ART	antiretroviral therapy
ARV	antiretroviral
ASRAMES	Association Régionale d'Approvisionnement des Médicaments Essentiels
ASEAN	Association of Southeast Asian Nations
ASO	antimicrobial stewardship, optimal access, and use
AWaRE	access, watch, reserve
AUDA-NEPAD	African Union Development Agency's New Partnership for Africa's Development
BCDS	Bangladesh Chemist and Druggist Samity
BE	bioequivalence
CAPA	corrective and preventive action

CAPTURA	Capturing data on Antimicrobial resistance Patterns and Trends in Use in Regions of Asia
CASIC	County Antimicrobial Stewardship Inter Agency Committees
CBA	cost benefit analysis
CCHPU	Climate Change Health Promotion Unit
CDC	Communicable Disease Control
CDD	Communicable Diseases Directorate
CDR	Centrale de Distribution Régionale
CGD	Center for Global Development
CHAI	Clinton Health Access Initiative
CHD	Center for Health Development
CHMT	County health management team
CHR	Regional Hospital Center
CHTF	Child Health Task Force
CHU	University Hospital Center
CHW	community health workers
CIPCAC	County IPC Advisory Committee
CME	continuing medical education
CME Bunia	Centre Médical Évangélique de Bunia
CMSD	Central Medical Store Depot
COE	center of excellence
COI	conflict of interest
COMCH	Cumilla Medical College Hospital
CoP	community of practice
COR	Contracting officer's representative
CORDAID	Catholic Organization for Relief and Development
COVID	Coronavirus Disease
CP	conditions precedent
CPD	continuing professional development

CPMSE	Services, Implementation, Monitoring, and Evaluation Commission
CQI	Continuous quality improvement
CRH	County Referral Hospital
CSRef	Reference Health Center
CSD	Clinical Services Directorate
CSL	Commodity Security and Logistics
CSO	Civil Society Organization
CT	clinical trial
CUL	Cliniques Universitaires de Lubumbashi
CWG	core working group
CYP	Couple years of protection
DBM	Department of Budget Management
DDA	Department of Drug Administration
DEP	Direction d'Etudes et Planification
DG	Director General
DGDA	Directorate General of Drug Administration
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DGOGSS	Direction Générale d'Organisation et de Gestion des Soins de Santé
DGSV	General Directorate of Veterinary Services
DHIS2	District Health Information Software version 2
DOH	Department of Health
DOHS	Department of Health Services
DNF	National Directorate of Pharmacy
DPCB	Disease Prevention and Control Bureau
DPH	Directorate of Hospital Pharmacy
DPM	Directorate of Pharmacy and Medicine
DPML	Directorate of Pharmacy, Drugs and Laboratories
DPNM	Department of Pharmacy and Natural Medicines

DPS	division provinciale de la santé
DQA	Data Quality Audit
DQSHH	Directorate for Quality, Security, and Hospital Hygiene
DRC	Democratic Republic of Congo
DRS	Regional Health Directorate
DR-TB	drug-resistant TB
DSA	data sharing agreement
DSFGS	Direction de la Santé de la Famille et de Groupes Spécifiques
DSIS	Directeur du Système d'Informatique en Santé
DTC	drugs and therapeutics committee
DTG	dolutegravir
DTP	Devolution Transition Plan
EAC	East African Community
eAMS	electronic asset management system
EB	Epidemiological Bureau
ECHO	Extension for Community Healthcare Outcomes
ECOWAS	Economic Community of West African States
eLMIS	electronic logistics management information system
EML	essential medicines list
eSCM	emergency supply chain management
ESUT	Enugu State University of Science and Technology
EUA	Emergency Use Authorization
EVD	Ebola Virus Disease
EWG	expert working group
FAO	United Nations Food and Agriculture Organization
FDA	Food and Drug Administration
FGD	focus group discussion
FP	Family Planning
FS	Field Support

4PL	fourth party logistics service providers
FY	Fiscal Year
GAD	Gender and Development
GBT	Global Benchmarking Tool
GCNM-RAM	Groupe de Coordination Multisectorielle National-Résistance aux Antimicrobiens
GDF	Global Drug Facility
GDP	good distribution practices
GF	Global Fund
GHeL	Global Health eLearning Center
GHSA	Global Health Security Agenda
GHSC	Global Health Supply Chain
GHSC-PSM	Global Health Supply Chain – Procurement supply management
GHPP	Good Hospital Pharmacy Practices
GMP	Good Manufacturing Practices
GPD	Government Procurement Department
GPP	good pharmacy practices
GSMN-RAM	National Multisectoral Coordination Group on antimicrobial resistance
HAI	hospital-acquired infection
HC	health center
HCAD	Health Communication and Awareness Directorate
HCNSSM	Haut Conseil National de Sécurité Sanitaire
HCW	healthcare worker
HCWM	Health Care Waste Management
HEU	Health Economics Unit
HF	health facility
HFDB	Health Facility Development Bureau
HGR	hopitaux generaux de reference
HH	hand hygiene
HHRDB	Health Human Resource Development Bureau

HIV	Human Immunodeficiency Virus
HOGIP	Idrissa Pouye General Hospital
HPDPB	Health Policy Development and Planning Bureau
HTA	Health Technology Assessment
HQ	headquarters
HR	human resources
HZ	health zone
InaHTAC	Indonesia Health Technology Assessment Committee
ICC	infection control committee
ICDDR,B	International Centre for Diarrheal Disease Research, Bangladesh
IDDS	Infectious Disease Detection and Surveillance Program
IEC	information, education, and communication
IEDCR	Institute of Epidemiology Disease Control and Research
IFRC	International Federation of Red Cross
IGAD	Intergovernmental Authority on Development
IHR	International Health Regulation
IMC	International Medical Corps
IMS	information management system
IPC	infection prevention and control
IPCAF	IPC Assessment Framework
IPCD	Infection Prevention and Control Department
IPNET	Infection Prevention Network
IPS	Provincial Health Inspectorate
IRIMS	Integrated Regulatory Information Management System
ISPOR	Professional Society for Health Economics and Outcomes Research
IT	information technology
IHR	International Health Regulations
IVD	in vitro diagnostic
ITIS	Integrated TB Information System

JEE	Joint External Evaluation
JFDA	Jordan Food and Drug Administration
JLN	Joint Learning Network
JOOTRH	Jaramogi Oginga Odinga Teaching & Referral Hospital
JPA	Jordan Pharmacists Association
KM	Knowledge Management
KMITS	Knowledge Management and Information Technology Service
KNMF	Kenya National Medicines Formulary
KU	Kathmandu University
Levoplant	Levonorgestrel Contraceptive Implant
LOB	Legislation and Opinion Bureau
LGU	Local Government Unit
LHSS	Local Health System Sustainability
LMIC	Low- and Middle-Income Country
MA	marketing authorization
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MALAP	maturity-level action plan
MCC	multisectoral coordination committee
M&E	monitoring & evaluation
MEL	monitoring, evaluation, learning
MERL	Monitoring, Evaluation, Research, and Learning
MIHR	Momentum Integrated Health Resilience
MIS	management information system
MLF	Ministry of Livestock and Fisheries
MMS	medicine management supervisor
MNCH	maternal, neonatal, and child health
MOH	Ministry of Health
MOHCDGEC	Ministry of Health, Community Development, Gender, Elderly, and Children
MOHFW	Ministry of Health and Family Welfare

MOHP	Ministry of Health and Population
MSC	multisectoral coordination
MSC-AMR	Multisectoral Coordination on AMR
MSF	Médecins Sans Frontières
MSH	Management Sciences for Health
MSR	medical and surgical requisites
MTaPS	Medicines, Technologies, and Pharmaceutical Services program
MTC	multisectoral technical committee
NAMRAC	National AMR Advisory Committee
NAMSC	National Antimicrobial Stewardship Committee
NAP	national action plan
NAP-AMR	National Action Plan on AMR
NAPHS	National Action Plan for Health Security
NASIC	National Antimicrobial Stewardship Interagency Committee
NASPCP	National AIDS and STI Prevention and Control Program
NC-AMR	National Commission on Antimicrobial Resistance
NDA	National Drug Authority
NDAMIS	NDA Management Information system
NCDC	Nigeria Center for Disease Control
NEML	national essential medicines list
NGO	non-governmental organization
NHA	National Health Account
NMCP	National Malaria Control Program
NMP	Nepal Medicines Policy
NMRA	national medicines regulatory authority
NPC	National Pharmacy Council
NPPFERZ	National Program for the Prevention and Control of Emerging and Re-emerging Zoonosis
NSP	national strategic plan

NTC	National Technical Committee
NTP	National Tuberculosis Control Program
NVPMC	National Vaccines Procurement Modernization Committee
OCAT	Operational Capabilities Audit Tool
OCC	Office Congolais de Contrôle
OH	One Health
OHJN	One Health Journalists Network
OHP	One Health platform
OHT	OneHealth Tool
OPHNE	Office of Population, Health, Nutrition, and Education
OSH	occupational safety and health
PCPD	Pharmacy and Clinical Pharmacy Directorate
PD	Pharmaceutical Division
PEA	Political Economy Analysis
PEV	Programme Elargi de Vaccination
PIES	provider integration and engagement system
PMDT	Programmatic Management Drug Resistant Tuberculosis
PMED	Pharmaceuticals and Medical Equipment Directorate
PMIS	pharmaceutical management information system
PMS	post-market surveillance
PNAM	Programme National d'Approvisionnement en Médicaments
PNIRA	Programme national de lutte contre les maladies respiratoires aiguës
PNRBC	Programme National de Réadaptation à Base Communautaire
PNSA	Programme National de Santé de l'Adolescent
PNSR	Programme National de Santé de la Reproduction
PPSSP	Programme de Promotion de Soins de Santé Primaires
POPCOM	Commission on Population and Development
PPB	Pharmacy and Poisons Board
PPJK	Pusat Pembiayaan Jaminan Kesehatan

PPPI	Philippines Pharmaceutical Procurement Inc.
PPWG	Pharmaceutical Products Working Group
PQM+	Promoting the Quality of Medicines Plus
PRH	Office of Population and Reproductive Health
PRIMS	Product Regulatory Information Management System
PRONANUT	Programme National de Nutrition
PS	Procurement Service
PSCM	Procurement and Supply Chain Management
PSD	Procurement and Supply Directorate
PSM	Procurement and Supply Management
PSS	pharmaceutical systems strengthening
PSU	pharmaceutical services unit
PSUR	periodic safety update report
PV	pharmacovigilance
PViMS	Pharmacovigilance Monitoring System
Q	Quarter
QIS	Quality Improvement Secretariat
QMS	quality management system
RBC	Rwanda Biomedical Center
RCORE	regional center of regulatory excellence
REDISSE	Regional Disease Surveillance Systems Enhancement
REMAP	resource mapping and impact analysis on health security investment
R4D	Result for Development
RFDA	Rwanda Food and Drugs Authority
RFP	request for proposals
RH	Reproductive Health
RHB	regional health bureau
RHITES	Regional Health Integration to Enhance Services
RMNCH	reproductive, maternal, newborn, and child health

RMP	risk management plan
RSS	regulatory systems strengthening
SADC	Southern African Development Community
SANRU	Santé Rurale
SARDC	La Société des Techniciens Anesthésistes- Réanimateurs du Congo
SCMP	supply chain management portal
SCMS	Supply Chain Management Service
SCOGO	Société Congolaise de Gynécologie et d'Obstétrique
SCoMRA V	Fifth biennial Scientific Conference on Medical Product Regulation in Africa
SCOSAF	Société Congolaise de la Pratique Sage-femme
SDHPS-DGSHP	Sous-Direction Hygiène Publique Salubrité de la Direction Générale de la Santé et l'Hygiène Publique
SEARN	South-East Asian Regulatory Network
SEARO	South-East Asia Regional Office
SHA	System for Health Accounts
SI	Strategic Information
SOP	standard operating procedure
SOPECOD	Société de Pédiatrie du Congo Démocratique
SOW	scope of work
SRS	Software Requirements Specifications
SSCS	Strengthening Supply Chain Systems
SSI	surgical site infection
SPARS	supervision, performance assessment, and recognition strategy
STG	standard treatment guidelines
SWOT	strengths, weaknesses, opportunities, and threats
TB	tuberculosis
TB Innovations	TB Innovations and Health Systems Strengthening
TLCA	TB leprosy control assistant
TLD	tenofovir + lamivudine + dolutegravir

TMDA	Tanzania Medicined and Medical Devices Authority
TPT	TB preventive treatment
TOR	terms of reference
TOT	training of trainers
TS	Technical Secretariat
TSR	targeted spontaneous reporting
TTC	Technical Thematic Committee
TS-MSC	Technical Secretariat of the AMR Multisectoral Coordination Committee
TWC	Technical Working Committee
TWG	technical working group
UAT	user acceptance testing
UHC	Universal Health Coverage
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
USAID	US Agency for International Development
USG	United States government
VTC	Vigilance Technical Committee
WAAW	World Antimicrobial Awareness Week
WAHO	West African Health Organization
WASH	water, sanitation, and hygiene
WHO	World Health Organization
WOM	Warehouse Operations Manual

INTRODUCTION

PURPOSE

Funded by the US Agency for International Development (USAID) and implemented by a team led by Management Sciences for Health (MSH), the purpose of the five-year Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018–2023) is to provide pharmaceutical system strengthening 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, and combating infectious disease threats, as well as expanding essential health coverage.

GOAL

The goal of the MTaPS Program is to help low- and middle-income countries (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.

MTAPS APPROACH TO STRENGTHENING PHARMACEUTICAL SYSTEMS

USAID awarded the MTaPS Program to enable low- and middle-income countries to strengthen their pharmaceutical systems to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medicines, vaccines, and other health technologies and pharmaceutical services. In this context, "access" refers 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). "Use" refers to prescribing, dispensing (or sale or supply to the user), and consumption (or end use).

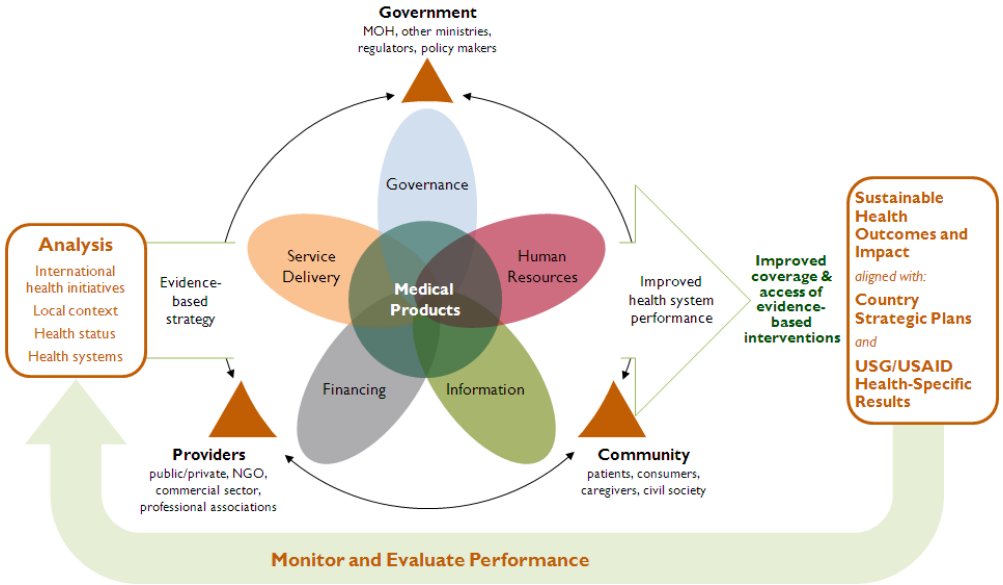


Figure 1. USAID pharmaceutical systems strengthening approach

The program's theory of change is based on USAID's Vision for Pharmaceutical Systems Strengthening (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 adopted 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.

ABOUT THIS REPORT

This report presents a summary of achievements by portfolio for fiscal year (FY) 2022, quarter (Q) 1 (October-December 2021). It summarizes program performance and key challenges and is organized by core funding, objective, and country.

Implementation of planned activities this quarter continued to be impacted by the Coronavirus Disease (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.

MTAPS PANDEMIC RESPONSE

COVID-19 VACCINE INTRODUCTION - QUARTER PROGRESS FOR FY22Q1

In Q1 FY22, MTaPS continued to support the governments in 11 countries to plan, deploy, administer, and monitor the safety of COVID-19 vaccines. The vaccines availability bottlenecks that were hindering the vaccination programs in many MTaPS countries in Q4 FY21 have been mostly relieved, and MTaPS has been actively supporting national vaccination programs with dedicated funding (CN108, CN164 and American Rescue Plan Act [ARPA]).

The MTaPS COVID-19 activities are fully aligned with the objectives and results areas of the *USAID Implementation Plan for the US COVID-19 Global Response and Recovery Framework,* published in October 2021.

COVID-19-funded countries:

Bangladesh (BG)
Burkina Faso (BF)
Cameroon (CM)
Côte d'Ivoire (CI)
Kenya (KN)
Mali (ML)
Mozambique (MZ)
Philippines (PH)
Rwanda (RW)
Senegal (SN)
Tanzania (TZ)

The MTaPS COVID-19 interventions support two USAID objectives and three result areas, including:

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

- Vaccine multisectoral coordination
- Pharmacovigilance (PV): policy and processes; adverse events following immunization (AEFI) system setup/implementation; PV capacity strengthening
- Safe service delivery: vaccine-related capacity building; infection prevention and control (IPC) at vaccination sites; inventory management for vaccine-related commodities
- Vaccine-related supply management: policy, systems, electronic logistics management information system (eLMIS), data-driven decision making
- Improved regulatory environment and policy for COVID-19 vaccines
- Development of microplans and distribution plans at subnational level

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

- IPC policies, guidelines, standard operating procedures (SOPs), and job aids
- IPC compliance monitoring and continuous improvement

- IPC capacity strengthening, eLearning, mentoring, and direct technical assistance to health facilities
- IPC capacity strengthening of non-health staff: waste management, mortuaries, funerals, transportation, and points of entry

Result Area 6: Coordination and Operations

- COVID-19 related policies, protocols, standards, guidelines, and tools

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

Table 1. MTaPS COVID-19 Q1 FY22 Indicators (detailed breakdown can be found in Annex 3).

Indicator and Disaggregation		Q1 FY22	Total fro March 2020
Number of AEFI reports reviewed with MTaPS' support among those submitted to country monitoring systems			
	# of AEFI reports reviewed with MTaPS' support	1,579	2,940
Number of people trained on COVID-19 vaccine-related topics with MTaPS' support			
	# of people trained	1,433	2,783
Sex	Male	838	1,674
	Female	595	1,109
Number of tools for planning and conducting safety monitoring developed, adapted, or disseminated with MTaPS' support			
	# of tools	1	8
Number of COVID-19 vaccine multisectoral coordination mechanisms that meet regularly (at least once a month) with MTaPS' support			
	# of multisectoral coordination mechanisms	7	30
Number of health facilities where MTaPS provided support for IPC and/or water, sanitation, and hygiene (WASH) for COVID-19			
	# of health facilities	243	4,102
Number of workers who received COVID-19-related training in IPC and/or WASH with MTaPS' support			
	# of people trained	512	42,839
Sex	Male	228	18,388
	Female	284	24,113
	Unknown sex		338
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	1	13
Number of countries that developed or adapted COVID-19 vaccine microplans with MTaPS' support			
	# of countries	4	4
Number of countries that have improved the regulatory and/or policy environment for COVID-19 vaccines with MTaPS' support			

# of countries	2	2
Number of countries that have plans for vaccine distribution to the subnational level developed, adapted, or disseminated with MTaPS' support		
# of countries	2	2

PROGRESS BY CORE-FUNDED PORTFOLIO

COMMODITIES SECURITY AND LOGISTICS DIVISION - QUARTER PROGRESS FOR FY22Q1

ACTIVITY 1: INCREASING GOVERNMENT FINANCING OF FAMILY PLANNING COMMODITIES AND SUPPLY CHAIN IN A DECENTRALIZED HEALTH SYSTEM: A POLITICAL ECONOMY ANALYSIS

MTaPS has received funding from USAID's Commodity and Security Logistics (CSL) Division of the Office of Population and Reproductive Health (PRH) to conduct a political economy analysis (PEA) in Uganda to examine the factors that influence domestic financing of family planning (FP) products and associated supply chain costs and that may shape decisions around increasing government financing within its decentralized health system. It is anticipated that the PEA will add value through enabling the Ministry of Health (MoH), USAID and other stakeholders to be better informed on the factors that currently influence priority setting and financing and procurement allocations for FP commodities at different levels and also possible entry points and potential interventions. The Uganda USAID Mission, through the USAID/Strengthening Supply Chain Systems (SSCS) Activity, supported the development and implementation of a ten-year supply chain roadmap plan aimed at supporting the government of Uganda to achieve self-reliance in supply chain and essential medicines and supplies. As government-funded FP products are managed through the essential medicines and health products supply system, the PEA will contribute to this endeavor by providing an entry point for looking at factors that influence financing decisions on essential medicines and health products more broadly.

Following on from MTaPS and SSCS meetings in the previous quarter to brief the Commissioners of Pharmacy and of Reproductive and Child Health on the PEA activity, on October 8, MTaPS received a letter signed by the Minister of Health to stakeholders working in the FP and reproductive health (RH) space requesting their participation and support for the PEA activity. Subsequently the Commissioner of Pharmacy convened an introductory meeting on October 18 which enabled MTaPS to brief stakeholders on the goals, expected value add and timeline for the PEA and to respond to questions and solicit comments such as which key stakeholders to include. The Commissioner of Pharmacy, USAID, and the SSCS Deputy Director provided opening remarks to participants who included the MoH Department of Pharmacy and Natural Medicines (DPNM), USAID, United Nations Population Fund (UNFPA), FHI360, the Clinton Health Access Initiative (CHAI), Global Health Supply Chain-Procurement supply management (GHSC-PSM), and Save the Children as well as the SSCS Activity team.

The Uganda MTaPS team, with the assistance of the SSCS Activity team members, worked diligently to schedule interviews with stakeholders throughout this quarter. By the end of the reporting period, MTaPS completed 30 interviews with 35 key informants, including development partners, implementing partners, the MOH Departments of Pharmacy and Reproductive and Infant Health, the Ministry of Finance, Planning and Economic Development, the Ministry of Local Government, the National Population Council, national medical stores, local non-governmental organizations (NGOs), and civil society organization (CSO) coalitions. The main challenge has been in securing interviews with

government stakeholders given COVID-19 priorities. MTaPS hopes to complete two outstanding interviews in Quarter 2, while analysis of the PEA findings and planning of report writing is underway.

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

MTaPS is conducting a study in Nigeria and the Philippines on the use of private sector fourth party logistics service providers (4PLs) with the objectives to understand factors, considerations, and influences for them to contract 4PLs; and develop models and advocacy strategies for governments and donors to leverage private sector supply chain service providers in the public health supply chain. There are four parts to the study in both countries: a desk review of 4PLs in public health supply chains, a rapid political economy analysis to understand influences and motivating factors, an operational capabilities analysis using the operational capabilities audit tool (OCAT) and a cost-benefit analysis (CBA).

In Q4 FY21, MTaPS completed data collection on the PEA and operational capabilities analysis using the OCAT. This quarter, MTaPS completed the CBA data collection and started organizing, cleaning and analyzing the collected data. In addition, MTaPS completed the data cleaning and analysis and drafted reports for the PEA and OCAT components in the two countries for review internally and by USAID. Also, a draft decision framework for the selection and/or engagement of private sector supply chain service providers was developed for review internally and by USAID. MTaPS has received feedback from the internal technical reviewers and USAID and is revising the documents accordingly.

ACTIVITY 3: USE OF RETAIL PHARMACIES AS A SOURCE OF FAMILY PLANNING PRODUCTS AND OTHER ESSENTIAL MEDICINES FOR PUBLIC SECTOR CLIENTS IN LMICS - A THOUGHT LEADERSHIP PAPER

MTaPS is developing a thought leadership paper on the use of retail pharmacies as a source of essential medicines and FP products for public sector clients in LMICs. MTaPS' core partner, Boston University, took the lead in developing this technical paper which documented examples of how private pharmacy engagements to serve public sector clients with FP and other essential medicines are implemented in high-income and select LMICs. In this quarter, following a rewrite of portions of the paper as recommended by USAID and external reviewers, MTaPS shared with USAID the final draft of the technical paper which highlights the key considerations, and advantages and disadvantages of engaging retail pharmacies as a source of essential medicines and FP products in LMICs as well as the lessons learned in the context of COVID-19 in LMICs. Final feedback is expected from the USAID CSL team in Quarter 2. MTaPS also initiated the development of a dissemination plan for the paper including via social media networks and distribution through listservs.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Activity 1: Increasing government financing of family planning commodities and supply chain in a decentralized health system: a political economy analysis • Complete last 2 key informant interviews • Develop policy brief • Hold workshop to share findings with stakeholders • Develop module with interview guides • Hold webinar for CSL	Jan-Mar 2022
Activity 2: Advocacy for governments to leverage private-sector logistics capabilities to increase accessibility and availability of FP commodities • Complete data analysis and report writing for CBA • Integrate feedback from first drafts of the PEA and OCAT reports and combine with the CBA and share this revised version with USAID • Hold dissemination workshop in both countries • Develop advocacy paper	Jan-Mar 2022
Activity 3: Use of retail pharmacies as a source of family planning products and other essential medicines for public-sector clients in LMICs—a thought leadership paper • Submit final paper, incorporating final inputs from USAID • Submit and implement dissemination plan	Jan-Mar 2022

GLOBAL HEALTH SECURITY AGENDA - QUARTER PROGRESS FOR FY22Q1

Currently MTaPS provides Global Health Security Agenda (GHSA) support to 13 partner countries (see box on right), focusing on antimicrobial resistance (AMR) containment. The key MTaPS approach is to help countries make progress on the pathway to higher levels of Joint External Evaluation (JEE) capacity in multisectoral coordination on AMR (MSC-AMR), IPC, and antimicrobial stewardship (AMS), based on the actions recommended in the World Health Organization (WHO) Benchmarks for International Health Regulations (IHR) Capacities. This report first provides selected highlights on cumulative progress since MTaPS program inception and then summarizes progress made in the reporting quarter (FY22Q1) in the above three areas.

GHSA-SUPPORTED COUNTRIES

Bangladesh (BD)
Burkina Faso (BF)
Cameroon (CM)
Côte d'Ivoire (CI)
DRC (CD)
Ethiopia (ET)
Kenya (KE)
Mali (ML)
Mozambique (MZ)
Nigeria (NG)
Senegal (SN)
Tanzania (TZ)

SELECTED CUMULATIVE HIGHLIGHTS SINCE MTAPS PROGRAM INCEPTION

Broad GHSA-Related Collaborations and Contributions

- Presented MTaPS' multicounty experiences and lessons learned in fostering MSC-AMR at the US-Singapore Third-Country Training Program on AMR (October 18, 2021)
- Collaborated with the United Nations (UN) Foundation and Wellcome Trust at a follow-up discussion to the High-Level Interactive Dialogue on AMR (September 8, 2021)
- Collaborated with WHO/Geneva, including as observer in the Strategic and Technical Advisory Group for AMR meeting (June 22-24, 2021)
- Contributed to reporting progress on the US National Action Plan (NAP) for Combating Antibiotic-Resistant Bacteria, 2020-2025

- MTaPS' GHSA work was cited in USAID's GHSA 2020 report that was published recently
- Collaborated with the Global Health Security Consortium project and EcoHealth Alliance for a side event at the November 2020 GHSA Ministerial Meeting in Thailand
- Collaborated with WHO, United Nations Food and Agriculture Organization (FAO), and the US Centers for Disease Control and Prevention in multiple countries in GHSA/AMR-related activities
- Presented GHSA work at the American Public Health Association, International Consortium for Prevention & Infection Control, Global Health Science & Practice Technical Exchange, and Action on Antibiotic Resistance conferences

- Authored three peer-reviewed publications on GHSA/AMR work

Country Progress on Benchmark Actions

Table 2. Progress on multisectoral coordination (MSC) (P.3.1): achieved cumulatively with MTaPS' support (as of December 2021)

Benchmarks actions completed/supported	Country												
	BD	BF	CM	CI	CD	ET	KE	ML	MZ	NG	SN	TZ	UG
No baseline scores, as the first version of the JEE tool used for these evaluations did not have this P.3.1. indicator													
Achieved* cumulatively from the beginning of MTaPS to Dec 2021**													
Limited Capacity – 02 (4 actions)	25%	75%	25%	100%	75%	75%	75%	0%	50%	0%	75%	25%	75%
Developed Capacity – 03 (4 actions)	100%	75%	50%	75%	50%	75%	50%	100%	50%	50%	50%	50%	50%
Demonstrated Capacity – 04 (4 actions)	50%	0%	25%	50%	50%	50%	100%	50%	0%	25%	50%	75%	50%
Sustainable Capacity – 05 (5 actions)	0%	0%	0%	0%	20%	0%	20%	0%	0%	0%	0%	20%	0%

Bangladesh (BD), Burkina Faso (BF), Cameroon (CM), Côte d'Ivoire (CI), DRC (CD), Ethiopia (ET), Kenya (KE), Mali (ML), Mozambique (MZ), Nigeria (NG), Senegal (SN), Tanzania (TZ), Uganda (UG)
* Some benchmark actions were partially achieved as they are a compound of two or more separate components.
** Some actions are ongoing.

Table 3. Progress on IPC (P.3.3): achieved cumulatively with MTaPS' support (as of December 2021)

Benchmarks actions completed/supported	Country												
	BD	BF	CM	CI	CD	ET	KE	ML	MZ	NG	SN	TZ	UG
Baseline JEE scores													
	2	**1**	**1**	**1**	**1**	**2**	**3**	**2**	**3**	**2**	**3**	**3**	**3**
Achieved* cumulatively from the beginning of MTaPS to December 2021**													
Limited Capacity – 02 (5 actions)	60%	N/A	60%	100%	40%	80%	80%	100%	80%	50%	80%	60%	80%
Developed Capacity – 03 (6 actions)	67%	N/A	67%	83%	50%	83%	83%	83%	67%	83%	83%	100%	83%
Demonstrated Capacity – 04 (5 actions)	0%	N/A	20%	40%	20%	0%	60%	40%	0%	0%	0%	100%	40%
Sustainable Capacity – 05 (5 actions)	0%	N/A	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%	0%

* Some benchmark actions were partially achieved as they are a compound of two or more separate components.
** Some actions are ongoing.

Table 4. Progress on AMS (P.3.4): achieved cumulatively with MTaPS' support (as of December 2021)

Benchmarks actions completed/ supported	Country												
	BD	BF	CM	CI	CD	ET	KE	ML	MZ	NG	SN	TZ	UG
Baseline JEE scores													
	2	1	1	1	1	2	3	2	1	2	3	3	3
Achieved* cumulatively from the beginning of MTaPS to December 2021**													
Limited Capacity – 02 (4 actions)	0%	75%	50%	100%	100%	25%	75%	75%	50%	50%	75%	75%	75%
Developed Capacity – 03 (6 actions)	17%	83%	17%	83%	50%	50%	67%	50%	17%	33%	17%	50%	66%
Demonstrated Capacity – 04 (7 actions)	0%	0%	0%	14%	14%	14%	14%	0%	0%	0%	0%	14%	43%
Sustainable Capacity – 05 (7 actions)	0%	0%	0%	0%	29%	0%	14%	0%	0%	0%	0%	14%	14%

* Some of the benchmark actions were partially achieved as they are a compound of two or more separate components.
** Some actions are ongoing.

Efforts in Nongovernmental Stakeholder Engagement

The following are cumulative examples of how MTaPS has incorporated private-sector entities, health care professional associations and councils, and civil society organizations into activities in multiple countries.

Private Sector

MTaPS supported private sector involvement in MSC and governance in each country in which it works. Professional associations, CSOs, NGOs, and manufacturers are examples of those who participated. Other examples of private sector involvement include:

Support to multiple countries' private facilities. Of the 77 facilities in nine countries that MTaPS is supporting for IPC, 19 (25%) are private facilities. Similarly, of the 75 facilities in eight countries being supported for AMS, 21 (28%) are private.

Assessments in multiple countries. In **Cameroon** and **Senegal**, MTaPS carried out IPC baseline surveys in public and private hospitals; MTaPS **Ethiopia** conducted baseline assessments of IPC, drugs and therapeutics committee (DTC) functionality, and AMS programs in both public and private hospitals; MTaPS **Cameroon** supported the AMR technical working group (TWG) in evaluating the capacity and functionality of DTCs through joint visits to eight health facilities (HFs), including two private clinics. In collaboration with WHO Geneva and Brazzaville, MTaPS in the **Democratic Republic of Congo** (**DRC**) and **Tanzania** collected data from the private sector to assess the national consumption of antimicrobials. In **Senegal**, representatives from government agencies and the private sector validated

the results of the rapid situational analysis of antimicrobial use, legislation, and control in the human, animal, and environmental health sectors.

Private sector orientation and training in multiple countries. MTaPS collaborated with private hospitals in **Tanzania** while developing training materials based on the latest national IPC guidelines. MTaPS **Ethiopia** provided training in IPC, prospective audit/feedback, and access, watch, and reserve (AWaRE) grouping of antibiotics to health care professionals from both public and private facilities. MTaPS and the AMS-TWG in **Côte d'Ivoire**—in collaboration with the national association of pharmacists, the Ivorian pharmaceutical regulatory authority, and Directorate of Pharmaceutical Activity—oriented 86 health care workers (HCWs) (mainly pharmacists) from both the private and public sectors on the rational use of antimicrobials. In **Burkina Faso,** the Directorate of Veterinary Public Health and Legislation and the Directorate of the National Livestock Laboratory, with support from MTaPS, trained 15 veterinarians from the public and private sectors as trainers on the guidelines for rational use of antimicrobials in livestock. More than 50 professionals from public and private electronic media outlets attended an AMR sensitization workshop in **Ethiopia**, where an AMR course was offered to journalists and communication professionals working in the public and private sectors. Similarly, in **Bangladesh**, journalists representing electronic and print media attended 2021 World Antimicrobial Awareness Week (WAAW) advocacy events emphasizing AMS and highlighting public-private partnerships and clinical engagement for strengthening AMR containment.

Professional Associations

In most of the supported countries, MTaPS facilitated collaboration with professional associations in training, MSC, guidelines and policy development, and assessments, including the following examples:

- **Burkina Faso:** National Council of Veterinarians and the Association of Private Veterinarians: National regulatory framework for AMS for the animal sector
- **Côte d'Ivoire:**
    - Association of Private Veterinarians: Hygiene and IPC rapid assessment in animal HFs
    - Health professional associations: Updated National AMS Plan 2021–2025
    - National Association of Pharmacists: Developing continuing professional development (CPD) sessions to increase awareness on AMR
- **Cameroon:** Society of Cameroonian Microbiologists: Orientation on AMR efforts, and IPC and AMS e-learning courses at annual conference
- **Kenya:**
    - National Nurses Association of Kenya, Kenya Clinical Officers Association, Association of Kenya Medical Laboratory Scientific Officers, Kenya Pharmaceutical Association, Kenya Society for Physiotherapists, Kenya Medical Association, Pharmaceutical Society of Kenya, and the Kenya Medical Practitioners and Dentists Council: Relicensure-linked CPD training courses on IPC and AMS

- Pharmaceutical Society of Kenya and Kenya Association of Private Hospitals: Webinars on health worker safety in the context of COVID-19
- Multiple professional associations: Development of the Kenya National Medicines Formulary
- Morticians and Allied Professionals of Kenya: Orientation on IPC

- **Uganda:** Pharmaceutical Society of Uganda: AMR symposia in four universities and CPD session on AMS
- **Bangladesh:**
  - Multiple professional associations: National standard treatment guidelines (STGs) for common infectious diseases, updated national AMR strategic plan and the National Action Plan on AMR (NAP-AMR)
  - Bangladesh Association of Pharmaceutical Industries, Bangladesh Chemist and Druggist Samity (BCDS): Roundtable discussion on antimicrobial use
  - Bangladesh Association of Pharmaceutical Industries, BCDS, Bangladesh Medical and Dental Council: Different activities to observe WAAW
- **Tanzania:** Multiple professional associations: Facilitator's guide and materials related to the sixth edition of the STGs and national essential medicines list (NEML) (2021)

Civil Society

MTaPS worked with governments to incorporate participation from civil society in governance structures, including the One Health platform in **Burkina Faso**, MSC-AMR body in **Côte d'Ivoire,** National Commission on AMR (NC-AMR) in **DRC**, and AMR TWG subcommittees for IPC and AMS in **Nigeria**. Other examples include contributions from the civil society health coordination group in analyzing AMS and IPC issues and identifying priority actions in **DRC** and orienting civil society members to increase their awareness of AMR and highlight interventions being implemented for human and animal health as part of a lecture series in **Uganda**. MTaPS **Ethiopia** partnered with MOH to train and support the Ethiopian Youth and Women Federations to sensitize the public on AMR during their primary work promoting hygiene and maternal and child health in their communities. The 21 trained female volunteers, with technical support from MTaPS, conducted educational sessions on the rational use of antimicrobials for 520 female members of the Addis Ababa Women Federation.

One Health-related Collaboration

Table 5. Highlights of One Health-related activities supported by MTaPS

Country	One Health-related activity (cumulative)
Kenya	• Collaborated with FAO to help the Murang'a and Nyeri County governments develop comprehensive One Health costed County AMS Interagency Committee (CASIC) work plans for 2020-2022

Country	One Health-related activity (cumulative)
	• Collaborated with University of Nairobi, School of Pharmacy to introduce AMS and One Health principles into postgraduate and undergraduate pharmacy courses • Supported development of a high-level brief on One Health-oriented AMR, which has been disseminated in several meetings to over 700 people and a One Health AMR bulletin • Worked with the Africa One Health University Network to validate a mapping of One Health partners • Helped organize a symposium on AMR under the One Health approach during WAAW 2021
Cameroon	• Collaborated with multisectoral organizations to do a costing exercise of the One Health platform's operational and monitoring & evaluation (M&E) plans • Presented on MSC-AMR activity implementation at a workshop organized by the One Health platform • Supported a capacity-building workshop for 20 national experts from different ministries of the One Health Platform on AMR that will serve as resource persons on AMR containment • Assessed four action packages: AMR; national laboratory system; emergency preparedness; and coordination, communication, and promotion of One Health approach as part of developing a three-year (2022–2025) national One Health strategic plan
Bangladesh	• Facilitated a One Health workshop on mapping the status of implementing the NAP-AMR
Burkina Faso	• Helped draft the ministerial order that defines the roles, composition, and functioning of the One Health Steering Technical Committee, One Health Technical Secretariat, One Health Technical Commissions, and ministerial focal points • Supported the One Health platform in organizing two workshops to assess NAP-AMR implementation and develop an updated version • Enabled the establishment of technical thematic committees (TTCs) under the One Health platform, including developing terms of reference (TOR) and SOPs
Senegal	• Supported the One Health platform permanent secretariat in establishing required TWGs, including for AMS • Supported the One Health Permanent Secretariat and AMR TWG in organizing a workshop to finalize and validate the AMS NAP and 2021 AMR annual action plan • Worked with the One Health Permanent Secretariat to organize 2021 WAAW activities • Oriented journalists on One Health and AMR, resulting in the establishment of the One Health Journalists Network (OHJN); the newly trained journalists contributed to media coverage of WAAW
Ethiopia	• Trained journalists in One Health and AMR issues in human and animal health and the environment
Mozambique	• Participated in a meeting for implementing One Health activities to be guided by the National Action Plan for Health Security (NAPHS)
Côte d'Ivoire	• Collaborated with One Health stakeholders to assess performance of NAPHS, inform the resource mapping and impact analysis on health security investment (REMAP), complete the State Party Self-Assessment Annual Reporting tool, and develop the 2021 NAPHS operational action plan

Country	One Health-related activity (cumulative)
	• Supported the One Health platform in organizing activities for One Health Day and WAAW
Uganda	• Worked with the One Health body overseeing the NAP-AMR to develop a platform for information and document exchange between One Health platform stakeholders • Organized AMR symposia at four universities that covered the One Health concept

SUMMARY OF ACTIVITIES FOR THIS QUARTER (FY22Q1)

Selected MTaPS GHSA Indicator Progress

Most countries have increased numbers of MSC meetings (MSC1). For indicators IP3, IP5 and IP6, most facilities had 100% achievement in PY4Q1, similar to the previous quarter. For indicators AS2 and AS4, most facilities increased or maintained achievements, but more focused work is required.

Figure 2. MSC1. # of AMR-related in-country meetings or activities conducted with multisectoral participation in PY4Q1

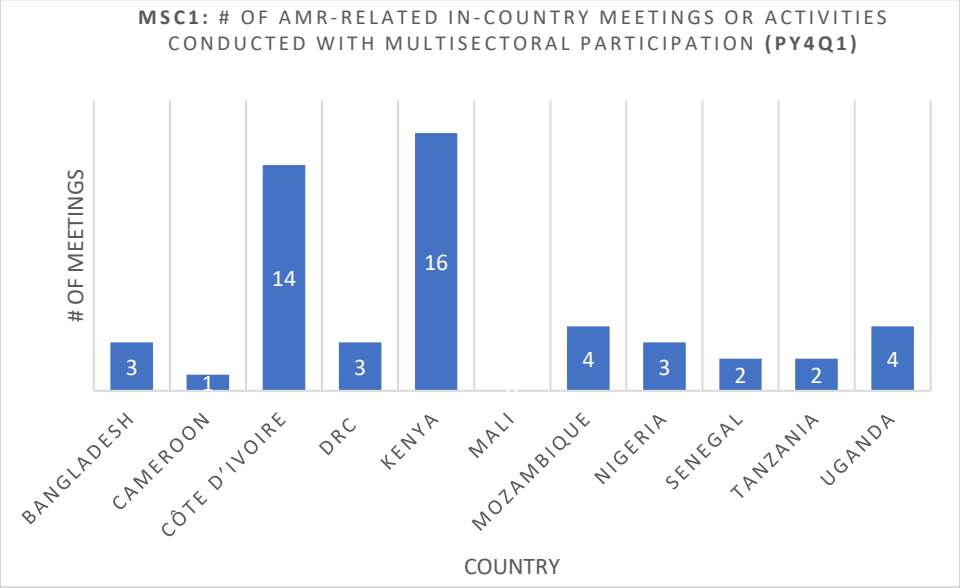


Table 6. IP3: % of MTaPS-supported facilities that are using standardized tools for monitoring IPC and informing programmatic improvement

Country / Quarter	Bangladesh	Cameroon	Côte d'Ivoire	DRC	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q3	100% (2/2)	100% (12/12)	100% (12/12)	100% (7/7)	100% (20/20)	100% (16/16)	100% (7/7)	0% (0/0)	75% (6/8)	100% (10/10)	100% (13/13)
PY3Q4	100% (2/2)	100% (12/12)	100% (12/12)	100% (7/7)	100% (20/20)	100% (16/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)
PY4Q1	50% (2/4)	100% (12/12)	73% (16/22)	100% (7/7)	100% (20/20)	100% (16/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)

Table 7. IP5. % of MTaPS-supported facilities implementing continuous quality improvement (CQI) to improve IPC

Country / Quarter	Bangladesh	Cameroon	Côte d'Ivoire	DRC	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q3	100% (2/2)	100% (12/12)	100% (12/12)	43% (3/7)	100% (20/20)	81% (13/16)	100% (7/7)	0% (0/0)	75% (6/8)	100% (10/10)	100% (13/13)
PY4Q4	100% (2/2)	100% (12/12)	100% (12/12)	100% (7/7)	100% (20/20)	94% (15/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)
PY4Q1	50% (2/4)	100% (12/12)	55% (12/22)	100% (7/7)	100% (20/20)	94% (15/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)

Table 8. IP6. % of MTaPS-supported facilities with functional IPC committees

Country / Quarter	Bangladesh	Cameroon	Côte d'Ivoire	DRC	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q3	100% (2/2)	100% (12/12)	50% (6/12)	86% (6/7)	92% (18/20)	88% (14/16)	100% (7/7)	0% (0/0)	75% (6/8)	100% (10/10)	100% (13/13)
PY3Q4	100% (2/2)	100% (12/12)	100% (12/12)	100% (7/7)	92% (18/20)	75% (12/16)	100% (7/7)	0% (0/3)	100% (8/8)	100% (10/10)	100% (13/13)
PY4Q1	50% (2/4)	100% (12/12)	73% (16/22)	100% (7/7)	100% (20/20)	88% (14/16)	100% (7/7)	33% (1/3)	100% (8/8)	100% (10/10)	100% (13/13)

Table 9. AS2. % of MTaPS-supported facilities' medicines and therapeutics/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework

Country / Quarter	Bangladesh	Burkina Faso	Cameroon	Côte d'Ivoire	DRC	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q3	0% (0/2)	17% (2/12)	92% (11/12)	75% (9/12)	57% (4/7)	83% (20/24)	13% (2/16)	0% (0/7)	0% (0/0)	0% (0/8)	20% (2/10)	100% (13/13)
PY3Q4	0% (0/2)	25% (3/12)	92% (11/12)	75% (9/12)	100% (7/7)	83% (20/24)	19% (2/16)	0% (0/7)	0% (0/3)	0% (0/8)	20% (2/10)	100% (13/13)
PY4Q1	25% (1/4)	-**	100% (12/12)	40% (9/22)	100% (7/7)	91% (21/23)*	19% (13/16)	71% (5/7)	100% (3/3)	100% (8/8)	100% (10/10)	100% (13/13)

*One facility dropped out from this quarter, hence the denominator changed from 24 to 23.
** Data not yet available for this quarter

Table 10. AS4. % of MTaPS-supported facilities implementing CQI to improve AMS

Country / Quarter	Bangladesh	Burkina Faso	Cameroon	Côte d'Ivoire	DRC	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
PY3Q3	0% (0/2)	8% (1/12)	92% (11/12)	75% (9/12)	43% (3/7)	83% (20/24)	13% (2/16)	0% (0/7)	0% (0/0)	0% (0/8)	20% (2/10)	100% (13/13)
PY3Q4	0% (0/2)	25% (3/12)	92% (11/12)	90% (9/10)	100% (7/7)	92% (22/24)	13% (2/16)	57% (4/7)	0% (0/3)	0% (0/8)	20% (2/10)	100% (13/13)
PY4Q1	0% (0/4)	-**	100% (12/12)	40% (9/22)	100% (7/7)	91% (21/23)*	19% (3/16)	72% (5/7)	0% (0/3)	0% (0/8)	60% (6/10)	100% (13/13)

*One facility dropped out from this quarter, hence the denominator changed from 24 to 23.
** Data not yet available for this quarter

MTaPS GHSA Outreach during the quarter

Success stories and blog on MTaPS website

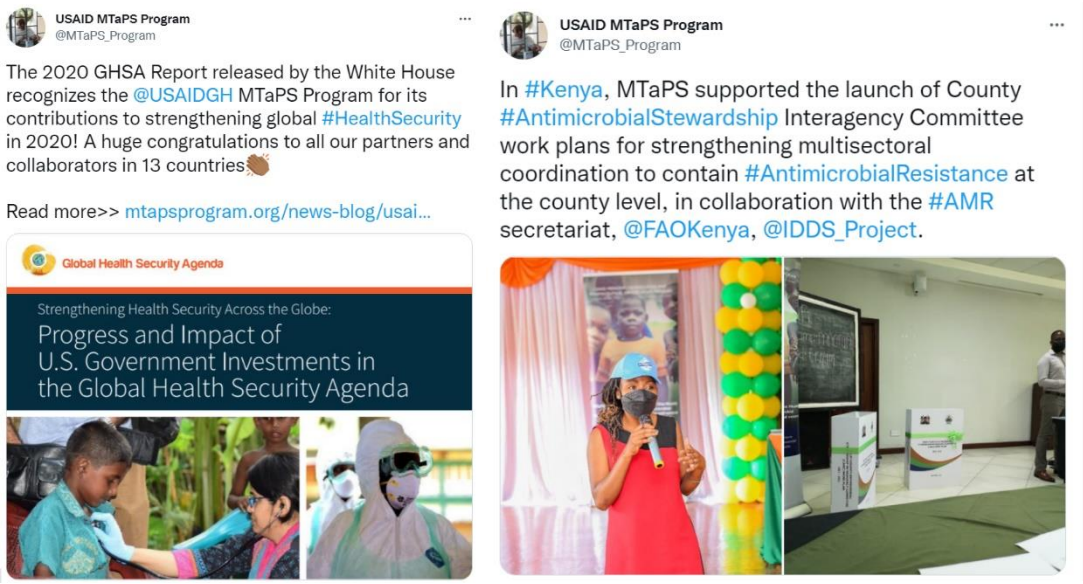
- Integrating Antimicrobial Stewardship into Continuing Professional Development in Kenya - October 5, 2021
- Meet Uganda's Dr. Najjuka, a Champion for Infection Prevention and Control at All Levels - October 8, 2021
- Build it Right or They Won't Come: Being Gender Responsive for COVID-19 Mass Vaccination - October 18, 2021

- Enabling the rational use of antimicrobials in the livestock sector in Burkina Faso - November 17, 2021 (in English and French)
- Antimicrobial Resistance: Let's Stop the Next Pandemic Before It Is Too Late - November 19, 2021
- A Call for Policies and Regulations to Strengthen Antimicrobial Stewardship - November 23, 2021
- Uganda's Champions Leading the Fight against Antimicrobial Resistance: Dr. Birabwa-Male - December 3, 2021
- Creating Sex/Gender-Responsive Health Supply Chains: COVID-19 Reminds Us Again - December 8, 2021

External media and publications

Progress and Impact of U.S. Government Investments in the Global Health Security Agenda

Social media and other communications products



Celebrating WAAW: November 18-24, 2021

- A specific page on the MTaPS website highlighting areas of work and select activities was published during WAAW: https://www.mtapsprogram.org/waaw/. Over the course of WAAW, this page received 389 unique link clicks for an average time on the page of 4 minutes and 15 seconds.
- Our content reached 2,964 impressions on Facebook and 15,299 on Twitter; 34 Twitter handles started following the MTaPS Twitter page during WAAW. Notable institutions that retweeted or liked our content included USAID Global Health, the GHSA Consortium, Biomérieux, CIDRAP's AMS Project, and the Uppsala Monitoring Center.

MTaPS supported many of its countries in planning and carrying out activities to commemorate WAAW. In **Kenya**, MTaPS supported a two-day event that included a symposium on AMR under the

One Health approach and a launch event where AMR documents were launched or relaunched, including the AMR M&E Framework, Kenya National IPC Policy (2021), Kenya National IPC Strategic Plan (2021-2025), Diagnostic Stewardship Guidelines, and the National Integrated AMS Plan (2021-2026). MTaPS supported the development of the first three documents. MTaPS supported a sensitization meeting, held by the Pharmacy and Poisons Board, on AMR, antimicrobial use, and consumption, targeting human and animal health regulators (the Pharmacy and Poisons Board is the Kenyan national medicines regulatory authority). MTaPS also helped its focus counties with activities, such as continuous medical education (CME) sessions for health workers and patient sensitization on AMR.

The **Tanzanian** Ministry of Health, Community Development, Gender, Elderly, and Children (MOHCDGEC), in cooperation with MTaPS, conducted the 17th Multisectoral Coordination Committee (MCC) meeting virtually in October to map stakeholders and partners and to mobilize resources to celebrate WAAW. MTaPS also worked with the IPC and awareness TWGs comprising 27 representatives from MTaPS, FAO, Tanzania Medicines and Medical Devices Authority, Sokoine University of Agriculture, University of Dodoma, MOHCDGEC, and Ministry of Livestock and Fisheries to develop a WAAW plan. They focused on translating the WHO theme into Swahili language ("Spread Awareness, Stop Resistance"—*Eneza Ujumbe, Zuia Usugu wa Vimelea Dhidi ya Dawa*) and developing information and communication materials to use for advocacy and events. The team also adapted messages from WHO on AMS and IPC as key strategies for AMR containment for posters, brochures, banners, and videos. The Prime Minister's Office distributed printed materials to primary and secondary schools, universities, and marketplaces across Tanzania.

MTaPS **Cameroon** also worked with 25 members of the Technical Secretariat of the AMR MCC to coordinate WAAW activities. Representatives came from the Ministry of Environment and Nature Protection, Ministry of Agriculture and Rural Development, Ministry of Animal Husbandry and Fisheries, National Veterinary Reference Laboratory, WHO, and the Infectious Disease Detection and Surveillance Program. Participants validated advocacy messages on flyers, banners, T-shirts, and caps and agreed on conducting a launch ceremony, roundtable discussions, and a sensitization walk. MTaPS supported the Technical Secretariat to print 300 flyers, 145 T-shirts, and 80 hats and helped organize the launch ceremony for about 200 participants from the human health, agricultural, and environmental sectors; the University of Bangangte; technical and financial partners; university students, and members of the civil society. During this ceremony, One Health representatives gave presentations on AMR's devastating effects and the recommended strategies to control this growing threat.

In **Senegal**, MTaPS supported the Permanent Secretariat of Haut Conseil National de Sécurité Sanitaire "One Health" (HCNSSM/OH) to organize two virtual meetings with select AMR TWG members to develop WAAW activities. Breakthrough Action, FAO, WHO, MTaPS, PATH/FAO/Fleming Fund, Regional Disease Surveillance Systems Enhancement (REDISSE), and the One Health Permanent Secretary staff participated. MTaPS and Breakthrough Action collaborated to develop a WAAW concept note to prioritize activities, which included orienting 12 journalists on One Health, AMR, and zoonotic diseases and establishing the One Health Journalists Network; raising AMR awareness among community actors (breeders, producers, farmers, traditional communicators, etc.) in Dakar, Kolda, and Ziguinchor; and doing a multisectoral closing ceremony organized under the chairmanship of the High Council of Local Authorities, the Minister of the General Secretariat of the Government, and the chiefs

of staff of ministries of the human, animal, and agricultural health sectors. This was the first joint effort among AMR multisectoral partners to organize such an activity. In addition, the newly trained journalists started producing radio and TV reports in local languages and French on AMR and contributed to media coverage of the official WAAW closing ceremony.

MTaPS **Uganda** supported student AMR interest groups at two medical universities in conducting a grand round on AMR and AMS and in sharing academic researchers' and teaching hospitals' work to enhance optimal use of antimicrobials and IPC. MTaPS also conducted an MSH office event under the "Go blue for AMR awareness" color campaign where the MTaPS team engaged MSH staff to increase AMR awareness within their circles. MTaPS also used this activity to share MTaPS work with other MSH staff and explore areas of collaboration with the USAID Strengthening Supply Chain Systems project.

With MTaPS technical and funding support, all three MTaPS-supported facilities in **Nigeria's** Enugu State organized awareness programs targeting hospital personnel and the public on AMS, emphasizing the need for rational and evidence-based prescribing of antibiotics by health care workers and rational and responsible use of antibiotics by community members. The awareness program included road campaigns and media campaigns on AMS and a visit to state policy makers to advocate for legislation and funding of AMR containment programs at state hospitals.

MTaPS supported the AMR-TWG in **Côte d'Ivoire** in organizing the WAAW launch ceremony chaired by the minister of animal resources and fisheries. The ceremony featured the following events:

- A presentation on "AMR: The new threat" by Professor Dosso, President of the AMR MSC Group
- A panel discussion on the theme, "Let us raise awareness and control of AMR in the human, animal, and environmental health sectors in the context of COVID-19." The panel included a pharmacist, veterinarian, environment expert, and civil society representative.
- Patient testimony on antibiotic use
- Launch of a contest for best report/media production on AMR in Côte d'Ivoire. The prize will be awarded during the celebration of WAAW in 2022

MTaPS **Bangladesh** collaborated with WHO, the Better Health in Bangladesh project, and the Fleming Fund to organize the observance of WAAW 2021. Participants in the week's activities included Communicable Disease Control (CDC), Directorate General of Drug Administration, Department of Fisheries, Department of Livestock Services, IEDCR, Bangladesh Association of Pharmaceutical Industries, BCDS, Bangladesh Medical & Dental Council, Bangabandhu Sheikh Mujib Medical University, Evercare Hospital, North South University, WHO, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), and other stakeholders involved in AMR containment efforts. The week included advocacy workshops, rallies, and roundtable discussions. Attendees of the events included the honorable minister of the Ministry of Health and Family Welfare, director generals of different directorates of human and animal health, hospital administrators, and electronic and print media journalists. Advocacy highlighted public-private partnerships and clinical engagement for strengthening AMR containment, status of the country's AMR containment program, and next steps in AMR surveillance in human and animal health from both government and private laboratories.

This quarter, MTaPS worked with the multisectoral representatives of the Government of **Mozambique** and other partners, such as FAO, on organizing a symposium during WAAW to showcase the AMR MCC's accomplishments and encourage best practices among the public, human and animal health professionals, and policy decision makers to prevent drug-resistant infections. The symposium included some physically present presenters and participants and others who attended virtually. The NAP-AMR and "Advances and Challenges in Implementing the One Health Approach to Surveillance and Control of AMR in Mozambique" were presented during this symposium, with a message for human, animal, and environmental health to coordinate activities. Investigators from human and animal health presented their work on the epidemiology of bacterial AMR as well as antimicrobial consumption. MTaPS presented "Implications of Antibiotic Use during the COVID-19 Pandemic," which included a discussion among panelists from three provincial hospitals. In the plenary session, a key issue discussed was the overuse of antimicrobials in the hospitals managing COVID-19 patients. During the plenary, discussions concluded that Mozambique is producing good research data in the human and animal sectors on AMS/AMR, but institutions are working in isolation rather than following the One Health approach, and that guidelines need to be aligned with international recommendations while considering the country's context. MTaPS also supported the production a banner and a TV spot to publicize the event.

EFFECTIVE MSC-AMR

Strengthening MSC governance structures and functions: In **Côte d'Ivoire**, MTaPS supported a workshop to update the NAPHS performance assessment. MTaPS also provided the AMR data used to update the REMAP. The REMAP's AMR score in Côte d'Ivoire increased from 40% in 2020 to 53% in 2021. With MTaPS' technical support, **Bangladesh's** CDC, Directorate General of Health Services (DGHS) updated the existing structure, membership, and TOR for the National Steering Committee, National Technical Committee (NTC), and Core Working Group and incorporated them into the NAP for AMR Containment (2021-2026). The CDC, DGHS will share the updated National Strategic Plan (NSP) and NAP with the NTC for guidance. MTaPS, Fleming Fund Country Grant, CAPTURA, and CDC, DGHS held a virtual forum to discuss the joint establishment of a publicly available web-based platform led by CDC, DGHS to share AMR information. CAPTURA shared a template for a web-based portal for IPC, AMR research activities, AMR newsletter, AMS, and laboratory-based AMR surveillance, where different stakeholders would have controlled access. MTaPS, Fleming Fund, and the Capturing data on Antimicrobial resistance Patterns and Trends in Use in Regions of Asia (CAPTURA) project started developing the common platform, which will increase information sharing among stakeholders. In October 2021, the MTaPS **Burkina Faso** team met with the Technical Secretariat of the One Health platform to express the need to proceed with the planned induction workshop for the TTCs, even though the ministerial order establishing the TTCs had not been signed yet. At a workshop held in November, presidents and vice-presidents were briefed on their roles and responsibilities and received guidance to develop TOR, SOPs, and rules and regulations for their TTCs to function.

Holding multisectoral meetings or activities: MTaPS held three meetings with the Sous-Direction Hygiène Publique Salubrité de la Direction Générale de la Santé et l'Hygiène Publique (SDHPS-DGSHP), the faculty of medicine, and the national AMR focal point in **Mali** to present its year 4 work plan and implementation approaches. As a result of these meetings, SDHPS-DGSHP agreed to approve the recruitment of a consultant to develop the national IPC strategic plan, and the dean of the university

recommended meeting to establish a committee of lecturers to increase students' access to the eLearning IPC courses and respond to student questions. WHO will organize a workshop to prioritize activities in the NAP-AMR, and MTaPS will fund the review of the NAP-AMR and its M&E plan.

In **Tanzania**, MTaPS organized and provided technical support to the IPC TWG to hold a meeting to discuss progress and develop an action plan. Progress in the last three years included strengthening coordination at the ministerial level by adding three people to coordinate activities nationwide and to disseminate national IPC guidelines, standards, and SOPs to most hospitals and to disseminate the national IPC M&E framework and reporting tools/system to select facilities. The TWG noted the need for more IPC advocacy at the community level through both government and private sector media. MTaPS Tanzania supported the 18th MCC meeting, which was attended by representatives from MOHCDGEC, WHO, FAO, MLF, Prime Minister's Office, and other implementing partners. The participants discussed the use of antimicrobials in human, livestock, and plants and environment pollution and how they contribute to AMR. The AMS, IPC, Surveillance, and Awareness TWGs presented updates and plans for upcoming activities to the MCC, and MTaPS also presented its updates. MTaPS **Cameroon** supported the Society of Cameroonian Microbiologists to strengthen the technical capacity of government stakeholders and health care providers on AMR during its conference in November. During a presentation on AMR, MTaPS informed participants of the IPC and AMS e-learning courses.

MTaPS **Senegal** made technical contributions to the zoonotic diseases working group workshop to share information on activities related to priority zoonotic diseases and critical gaps that require the mobilization of additional technical and financial resources. The new French Development Agency's African project planned to address this during its work plan development; MTaPS will provide technical inputs to that process and to implementation monitoring based on MTaPS' experience in AMR. MTaPS **Uganda** supported the first physical quarterly meeting of the antimicrobial stewardship, optimal access, and use (ASO) technical working committee of the One Health platform on AMR. The 50 committee members from the MOH; Ministry of Agriculture, Animal Industry and Fisheries (MAAIF); health professional bodies; and implementing partners discussed progress on implementing the NAP-AMR and proposed activities for FY22. MTaPS supported a workshop in **Côte d'Ivoire** with the AMR-TWG to review activities from the previous quarter. Participants reviewed feedback from assessments of the DTCs of the Polyclinic of Indenie and regional hospital center (CHR) of Divo, dissemination of AMS communication materials to HFs and private pharmacies, and situational analysis of antimicrobial use and consumption and heard about progress made on the AWaRe categorization of antibiotics. MTaPS also participated in a sensitization meeting for veterinarians and farmers on the rational use of antimicrobials in Agnibilekro.

In **DRC**, MTaPS supported the Directorate of Pharmacy and Medicine (DPM) and the NC-AMR in holding quarterly NC-AMR subcommittee meetings, where participants discussed the need to encourage other partners, such as the World Bank/REDISSE project, to support the AMS and IPC subcommittees' interventions. They recommended that the DPM collaborate with the REDISSE focal person to request that AMR activities be included in REDISSE's action plan. Meeting participants also discussed the effectiveness of DTCs' promotion of the rational use of medicines at the HF level. Members prepared a technical note to require that DTCs be established in hospitals and sent it to the MOH General Secretary. MTaPS also collaborated with WHO to support the NC-AMR's MSC meeting for

representatives from the MOH, Ministry of Agriculture, Ministry of Fisheries and Livestock, Ministry of Higher Education, Ministry of the Environment, civil society, and professional councils of nurses, pharmacists, and doctors. These representatives assessed how well recommendations from the previous quarter had been carried out: of 10 recommendations, three (30%) were completed, three were (30%) in progress, and four (40%) were not implemented. The representatives also presented the first draft of the operational plan to combat AMR, which MTaPS helped develop. FAO will fund implementation of this plan. Finally, MTaPS **Bangladesh** attended a virtual meeting with FAO and USAID representatives to discuss the country's AMR activities and how they can better collaborate.

Drafting or updating multisectoral policies, plans, or guidelines: MTaPS supported the dissemination of the National AMS Interagency Committee AMR bulletin, which had been compiled and printed with MTaPS support in **Kenya**. MTaPS Kenya also helped develop and launch the Murang'a CASIC work plan and Kilifi CASIC work plan during the reporting period. Both launches had representation from county One Health stakeholders and were officiated by the County Executive Committee Member for Health from each of the counties.

The National Program for the Prevention and Control of Emerging and Re-emerging Zoonosis, which is the focal point for the One Health platform in **Cameroon**, organized a three-day workshop for multisectoral, technical, and financial stakeholders to draft a three-year national One Health strategic plan for Cameroon (2022-2025), updating the previous one from 2012. This plan will include activities, a budget, and an M&E framework. Participants carried out a strengths, weaknesses, opportunities and threats (SWOT) analysis of all 22 action areas of the One Health platform. MTaPS helped assess four action packages: AMR; the national laboratory system; emergency preparedness; and coordination, communication, and promotion of the One Health approach. Participants identified priority activities, and the plan will be finalized next quarter. MTaPS supported the AMR-TWG in **Côte d'Ivoire** in organizing two workshops to finalize the national AMS plan and reviewing the previous quarter's activities. These participants updated the AMS plan's situational analysis, M&E plan, and budget. In **Burkina Faso**, MTaPS had previously assessed the national multisectoral action plan to control AMR, and then supported the plan's review through two workshops in September and October 2021.

IPC Improved and Functional

Strengthening IPC governance structures: To strengthen IPC governance in **Kenya's** Nyeri County, the county health management team met to discuss the County IPC Advisory Committee's (CIPCAC) operations and monitor implementation of its action plan. They observed that several members of CIPCAC had retired, meetings were not being held, and IPC action plan implementation had been hampered. To revive it, an eight-member CIPCAC was formally appointed, and MTaPS conducted a two-day sensitization and work planning workshop for the committee in December 2021.

MTaPS also helped establish a Kisumu County CIPCAC, sensitized the team, and helped them develop an action plan. Likewise, in Kilifi County, MTaPS helped establish and orient a CIPCAC of 16 members and worked with them to develop an action plan. The members were also sensitized on occupational safety and health.

In Kilifi County, MTaPS met with hospital IPC committees at Kilifi County referral hospital (CRH) and Malindi sub-county hospital to strengthen governance and coordination of the IPC program, which had been hindered by the lack of a coordinating structure and an IPC focal person at county level. The newly appointed IPC focal person for Kilifi County and the county nursing officer also attended the meeting.

MTaPS **Nigeria** provided technical support to the three IPC teams to draft their action plans to address IPC gaps and prioritize needs for the IPC program. The USAID team, joined by MTaPS Nigeria, the AMR-TWG secretariat, and the state IPC focal person, visited Enugu State University of Science and Technology (ESUT) Hospital and General Hospital Agbani and provided feedback to the state's honorable commissioner for health. They reported that both facilities had launched AMS/IPC committees and teams, started advocacy and training for facility staff, and implemented hand hygiene (HH) practices and compliance. Challenges included poor waste management; MTaPS will raise this issue with hospital leadership and advocate for addressing it.

Assessing and reassessing IPC programs at the national and facility levels and developing action plans: MTaPS **Senegal** supported the infection control committees (ICCs) in six MTaPS-supported hospitals to use the WHO Infection Prevention and Control Assessment Framework (IPCAF) tool to review the results of their IPC improvement action plans. The internal reviews showed that the hospitals increased their IPC capacity levels (one rose from inadequate to intermediate capacity level, four from basic to intermediate, and one from basic to advanced) (table 11). ICCs will continue to carry out their improvement action plans by using continuous quality improvement (CQI) and WHO multimodal approaches to further improve their IPC capacity levels.

Table 11. Improved capacity levels in Senegal

Hospitals	IPCAF results	
	Baseline score/800 IPC level	Follow-up score/800 IPC level
Level 1 hospital of Mbour	167.5 Inadequate (Feb 2021)	455 Intermediate (Oct 2021)
Level 2 hospital of Fatick	315 Basic (Feb 2021)	513 Intermediate (Oct 2021)
Level 2 hospital of Kaffrine	380 Basic (Feb 2021)	535 Intermediate (Oct 2021)
Level 3 hospital of Touba	310 Basic (Feb 2021)	450 Intermediate (Oct 2021)
Level 3 hospital Aristide Le Dantec of Dakar	322 Basic (Mar 2021)	692.5 Advanced (Oct 2021)

Level 3 hospital Idrissa Pouye General Hospital (HOGIP) Dakar	315 Basic (Oct 2019)	447.5 Intermediate (Dec 2021)

In **Côte d'Ivoire**, MTaPS supported the AMR-TWG and multisectoral technical committee (MTC)4 (IPC TWG) in conducting IPC baseline assessments in four CHRs (San Pedro, Gagnoa, Divo, and Korhogo) from November 30 through December 9, 2021, using the WHO IPCAF and the WHO Hand Hygiene Self-Assessment Tools. Two teams composed of the IPC regional focal point and a master trainer visited the facilities. Table 12 summarizes the scores of the four hospitals; both IPC and HH results indicated capacities in the basic to intermediate range. The hospitals used the results to develop action plans to improve HH practices, strengthen the training of staff in IPC, and initiate monitoring of health care-associated infections.

Table 12. Baseline assessments in four CHRs

HF	IPCAF score (/800)	IPC level	HH score (/500)	HH level
San Pedro	317.5	Basic	185	Basic
Gagnoa	377.5	Basic	212.5	Basic
Divo	473	Intermediate	295	Intermediate
Korhogo	450	Intermediate	232.5	Basic

Cumilla Medical College Hospital in **Bangladesh** presented its baseline and repeat IPCAF results, interventions implemented to address gaps in the baseline assessment, and lessons learned in a workshop for 19 representatives from DGHS, CDC/DGHS, IEDCR, Shaheed Ziaur Rahman Medical College Hospital, Bogura, Bangladesh Medical College Hospital, Holy Family Red Crescent Medical College Hospital, icddr,b, US Centers for Disease Control and Prevention, and MTaPS. Lessons learned included the following:

- Facility leadership needs to collaborate with CDC/DGHS, so that hospital administration can prioritize IPC and AMS.
- Staff capacity-building activities and supervision are lacking because of resource and logistics gaps.
- Regular IPC monitoring and feedback are affected by the large number of COVID-19 patients.
- Behavior changes for controlling the spread of pathogens (e.g., cough etiquette and respiratory hygiene) and controlling visitors can further strengthen IPC activities.

Developing and implementing IPC policy and guidance documents: MTaPS **Kenya** collaborated with the MOH Division of Patient and Health Workers' Safety and other stakeholders to hold a five-day IPC M&E framework development workshop during the quarter. Subsequent meetings were held to review and finalize the draft framework and reporting tools. MTaPS supported a meeting to sensitize 39 county and partner representatives to the new framework, and their feedback was incorporated into the final version.

Additionally, MTaPS helped MOH review the National COVID-19 Recommendations on IPC in a five-day workshop. The guidelines were revised in accordance with global trends and emerging COVID-19 science.

During the quarter, MTaPS started an initiative with the MOH Occupational Safety and Health (OSH) Division to combine OSH and IPC activities to avoid duplication of efforts. The teams held planning meetings where they drafted an OSH orientation package and program to sensitize county health management teams. MTaPS participated in the development of the National Patient and Health Worker Safety and Quality of Care M&E Framework in collaboration with MOH and other implementing partners, which was validated in December. The document will guide tracking patient and health care worker safety issues and quality of care across all levels of health care.

In a four-day workshop, MTaPS worked with the MOH to revise the National IPC Guidelines for Health Care Services in Kenya developed in 2015 to align with the newly revised National IPC Policy and Strategic Plan. The revisions update the national guidelines with new guidelines addressing infectious diseases including COVID-19. Participants also drafted a high-level IPC communique and an outline for disseminating the IPC M&E framework and other IPC documents.

In **Tanzania**, MTaPS provided technical support to MOHCDGEC to craft guidelines and training materials for surveillance of hospital-acquired infections (HAIs) at HFs. The guidelines cover surgical site infections, central line-associated bloodstream infections, ventilator-associated pneumonia, and catheter-associated urinary tract infections. These guidelines standardize definitions, data collection, and reporting procedures for hospitals participating in the national/regional surveillance of HAIs and help improve the quality of care in Tanzanian hospitals. MTaPS, working with MAAIF in **Uganda**, held an event to officially hand over 2,000 copies of the Essential Veterinary Medicines List, Guidelines for Infection Prevention and Appropriate Antimicrobial Use in the Animal Sector, and education and communication materials to create awareness of antibiotic use and infection prevention in the agricultural and animal sector. Additionally, stakeholders and technical staff were identified, resources were mapped, and a plan made to disseminate the EML and guidelines in the regions and selected high-impact districts. The dissemination activities will involve MAAIF officials, district veterinary officers, drug shop operators, and farm operators, among others. MTaPS also worked with MAAIF in developing a scope of work (SOW) for a technical expert to support MAAIF and FAO in developing a national IPC framework/plan for the agricultural sector.

MOH in **Cameroon** officially endorsed the national IPC guidelines in December 2021 that MTaPS had been involved in developing. In September and October, MTaPS supported the Directorate of Health Promotion in developing the first draft of Cameroon's national IPC action plan. In a four-day workshop, 26 participants from MOH, Ministry of Fisheries and Animal Husbandry, Ministry of Environment and Nature Protection, United Nations International Children's Emergency Fund (UNICEF), US Centers for Disease Control and Prevention, and the International Federation of Red Cross (IFRC) reviewed the draft, budget, and M&E framework to prepare for validation in January 2022. In **Nigeria**, MTaPS supported the AMR-TWG secretariat in organizing two stakeholder workshops to review the draft national IPC strategic plan developed by an MTaPS consultant. The consultant will present a draft updated with inputs from the stakeholders for final approval in the next quarter. The document will

clarify national strategies for IPC implementation and programs in the country. In addition, the Enugu State IPC strategic plan is nearly complete.

Developing individual and local training capacities: In Murang'a County in **Kenya**, MTaPS met with IPC committees at Murang'a CRH and Maragwa sub-county hospital during supportive supervision visits to the facilities. During the visits, MTaPS provided technical guidance on resource mobilization to implement IPC CQI action plans, reviewed progress, and distributed SOPs and education and communication materials on HH.

MTaPS continued working with professional associations in supporting online training of health care workers in IPC. In November 2021, MTaPS supported an Extension for Community Healthcare Outcomes (Project ECHO) session on Kenya's NAP-AMR for over 80 participants from the across the country. The activity was a collaboration between MOH and the Infection Prevention Network. This platform is being used to educate health care workers and build their capacity in IPC and AMR. To share best IPC practices and promote CPD, MTaPS presented on IPC in a symposium for 57 organized by the Morticians and Allied Professionals of Kenya, who can apply the IPC precautions in their daily duties.

MTaPS continued engagement with its focus counties to monitor their CQI action plans, provide technical advice, and mentor staff on scientific paper writing. In Nyeri County, MTaPS provided supportive supervision in the eight focus HFs; in Murang'a County, MTaPS and the county IPC team made supportive supervision visits to two facilities to monitor the status of implementation of the IPC CQI action plans. The facilities had made marked improvement in health care waste management (HCWM) and final waste treatment, following the installation of a shredder and a microwave in Murang'a CRH and the stoppage of waste transport to Maragwa sub-county hospital. Maragwa hospital had been overwhelmed by the huge load of waste from the referral hospital, working around the clock to incinerate it. Both hospitals were conducting and reporting on monthly hospital IPC committee meetings, and weekly supervision schedules, reports, and CME schedules were available, indicating the teams' commitment.

During supervision visits to two hospitals in Kilifi County, MTaPS and the county health management team assessed the status of actions on HH, HCWM, and surgical site infection surveillance and found that, although implementation was slower than anticipated, Malindi sub-county hospital had improved its health care waste treatment because of the addition of a shredder and microwave to complement the incinerator. These facilities are treating medical waste from neighboring HFs, and a special van has been allocated for transporting the waste. The MTaPS team continued with follow-up visits to assess implementation of recommendations at three hospitals in Kisumu County. MTaPS recommended that the facilities conduct a refresher training in using CQI.

MTaPS supported **Mali's** IPC TWG in conducting supervision visits at 15 HFs. The team found that the IPC committees at 11 of the 15 facilities met at least once every six months and took meeting minutes, and seven of the 15 facilities had implemented at least 50% of activities in their action plans. Some facilities had inadequacies in waste sorting, and some had relaxed measures to triage visitors at the entrance. Recommendations were made to address those gaps.

In addition, data from a repeat of the Hand Hygiene Self-Assessment Framework showed that 12 of the 15 facilities have reached the intermediate level, compared to just three facilities at the first assessment. Three facilities have also reached the advanced level.

MTaPS supported the **Tanzania** MOHCDGEC in printing and disseminating IPC M&E data collection and reporting tools to supported facilities that have started recording data in the registers and that are expected to start reporting IPC data through District Health Information Software version 2 (DHIS2) in early 2022. MTaPS helped train facilities on how to implement the M&E protocol over five days. The participants included IPC and health management information systems (MIS) focal persons as well as MTaPS and ministry staff; 40 participants were trained as trainers, drawn from 14 regions. MOHCDGEC access to IPC data through DHIS2 will allow staff to make informed decisions and plan for supportive supervision, mentorship, and implementation of CQI countrywide. Also in Tanzania, 25 hospital professionals from different levels and cadres attended a one-week workshop in October 2021 on HAI surveillance. Representatives from WHO and the National Institute of Medical Research also attended to ensure that the training aligned with WHO and national protocols. This training will help fill one of the major gaps identified in HFs during the initial IPCAF assessments and support the country's progress toward achieving WHO benchmark actions.

In the previous year, MTaPS worked with **Uganda** MOH, Uganda Protestant Medical Bureau, and Uganda Catholic Medical Bureau to implement IPC CQI projects on HH. Last quarter, MTaPS conducted 14 mentorship activities in seven hospitals, reaching 442 HCWs. MTaPS used a locally developed IPC mentorship tool that mirrors the WHO's eight core components and multimodal strategies for improving HH to track IPC implementation. Survey results were shared with hospital staff and corrective action taken, including CME and ongoing mentorship, to improve IPC and HH knowledge. Additionally, hospital IPC teams were trained to conduct routine surveys using the WHO HH observation tool and analyze and interpret the data. The MTaPS team also conducted three prescriber trainings to improve antimicrobial prescription and use practices in upper respiratory tract infections, urinary tract infections, and surgical prophylaxis. For FY22, MTaPS plans to provide above-site technical assistance to USAID-funded Regional Health Integration to Enhance Services (RHITES) programs to improve IPC/WASH services in five regions. During the quarter, MTaPS held inception meetings and workshops with RHITES program leaders, technical officers, and the USAID Mission to introduce the activity, reflect on RHITES programs' progress, and plan next steps. A two-day workshop will train HFs on IPC/WASH and HH data collection tools and their application and data analysis and interpretation. These skills will strengthen their capacity to implement IPC CQI plans and meet standards.

In the absence of an e-learning platform in **Nigeria**, MTaPS held face-to-face training sessions for members of the IPC teams and committees in MTaPS-supported facilities. Following the sessions, the IPC teams organized step-down training sessions for about 200 personnel in three supported facilities. In **Mozambique**, MTaPS worked on a plan to implement training of trainers (TOT) workshops to build 60 provincial health authorities' capacity to deliver initial or refresher IPC/COVID-19 training to HFs. The TOT plan included TOR, the agenda, and logistics details, which the IPC TWG and National Directorate of Medical Assistance approved in December. The five-day training will cover the IPCAF tool and the Hand Hygiene Self-Assessment Framework tool. In November, MTaPS **Senegal** supported the Directorate for Quality, Security, and Hospital Hygiene and Informatics Technology Unit to organize

a workshop to integrate additional IPC modules into MOH's e-learning platform and prepare the virtual training of selected ICC members of the eight hospitals MTaPS supports. In December, the Informatics Technology Unit led a virtual training for 62 participants on how to use the e-learning platform and how to access and use the IPC courses.

In **Côte d'Ivoire**, a rapid situational analysis of the capacity and functionality of IPC committees was conducted in conjunction with the IPC baseline assessments by using the WHO IPCAF carried out from November 30 through December 9, 2021. The score for each facility is summarized in table 13.

Table 13. Capacity levels and scores for IPC committees in four CHRs

HF	Score (/100)	Levels of capacity and functionality of IPC committees
San Pedro	53	Intermediate
Gagnoa	55	Intermediate
Divo	59	Intermediate
Korhogo	59	Intermediate

To strengthen IPC committees, MTaPS oriented members on their roles and responsibilities and gave them IPC documents. The committees then developed their facility IPC action plans as part of the CQI of IPC practices.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Developing and implementing AMS policy, plan, and guidance documents, including AWaRe classification: MTaPS **Kenya**, in collaboration with MOH's Division of Health Products and Technologies, supported the development and validation of the first Kenya National Medicines Formulary that incorporated the AWaRe categorization of antibiotics. The formulary will help guide HCWs on appropriately prescribing antimicrobials to manage infections. MTaPS also continued to offer technical support to the Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) to complete its hospital formulary, which is expected to be launched in January 2022.

In **Tanzania**, MTaPS cooperated with MOHCDGEC's Pharmaceutical Services Unit to follow up with medicines and therapeutics committees (MTCs) on AMS activities, mainly on development of a hospital formulary. The MTCs of seven CHRs had started the process by naming a hospital formulary sub-committee and engaging with health care providers to collect their list of relevant medicines. One hospital, Benjamin Mkapa Hospital, is strengthening its draft formulary; Bugando Medical Centre and Mbeya Zonal Referral Hospital plan to update existing formularies by using the current national STGs/ NEML for Tanzania, Sixth Edition 2021, which has AWaRe categorization. During the last quarter, MTaPS worked with **Uganda's** Makerere University to develop a SOW for supporting MOH and the national AMS, Optimal Access, and Use Technical Working Committee to develop a national AMS plan that includes options to regulate antimicrobial use, availability, and quality. The process will include hiring a technical expert, conducting a situation analysis on antimicrobial use and consumption status, and organizing consultative meetings. As a continuation of FY21 activities, MTaPS supported MOH and

MAAIF to validate the recently completed assessment of national policies and guidelines on the country's antibiotic use, which the Government of Uganda approved. MTaPS received the following comment regarding the assessment.

> *As far as our colleagues from USAID MTaPS are concerned, MAAIF appreciates you. We thank you and pray that you continue the support you are providing to the MAAIF. We need to appreciate that they are doing a very good job. Please extend our sincere thanks to the USG through USAID.* —Dr. Anne Rose Ademun, Commissioner, Animal Health, during the validation of the assessment of national policies and guidelines on antibiotic use in Uganda

During this quarter, MTaPS **Nigeria** engaged with stakeholders to get buy-in for the AMS policy and its implementation plan across the human, animal, and environmental sectors. The first draft of the national AMS plan is based on the rapid assessment of stewardship policies and activities, supported by MTaPS, and has been reviewed by stakeholders in the human and animal health sectors, including the FAO country team. Once the report is completed, it will be adopted as a reference for Nigeria's AMS interventions. MTaPS, in collaboration with WHO, supported the Department of Food and Drug Services of the Federal MOH to organize a meeting of the national STG committee in December. This committee is responsible for developing the EML and STGs for disease conditions in Nigeria. MTaPS presented the process for categorizing antibiotics according to AWaRe, and WHO presented on the need for AWaRe categorization. AWaRe categorization is scheduled to start next quarter with clearly defined TOR for the committee. In **Côte d'Ivoire,** MTaPS supported the AMR-TWG in organizing four one-day meetings to analyze the data collected for the AWaRe categorization of antibiotics. The members of the antibiotic categorization experts' group and the resource persons who collected the data reviewed the data and its sources. Of 2,626 documents consulted, 286 were retained for data collection (9.2%). Participants noted that this was low and suggested an additional two days of data collection in nine additional facilities/structures. The data will inform the AWaRe workshop planned for January 2022. MTaPS **Bangladesh** incorporated feedback from the consultative workshop held last quarter to finalize the STGs on common infectious diseases and shared the draft with CDC and DGHS for final endorsement. Development of the app version progressed in parallel and is in its final stage.

Assessing AMS capacity at the national and local levels and developing action plans: MTaPS collaborated with the new Murang'a and Kilifi CASICs in **Kenya** to launch their work plans. The plans sharpen the focus on AMS/AMR activities in the counties in line with the One Health approach that brings together human health, agriculture, and the environmental sectors. MTaPS continued monitoring county and facility CQI action plans on AMS and MTC interventions. MTaPS also conducted two AMS/MTC team meetings in Murang'a and Nyeri Counties to update implementation status of AMS action plans. The MTCs actively engaged in capacity building, CME, and auditing and monitoring of antimicrobial use in the focus HFs. In Kisumu County, MTaPS, in collaboration with the county health department, carried out supportive supervision and mentorship in three HFs to monitor implementation of AMS CQI action plans. These activities focused on strengthening AMS programs to play a key role in preventing and containing AMR. MTaPS also supported and facilitated an AMS CME in collaboration with JOOTRH AMS committee for 50 participants. The AMS committee shared preliminary findings of a JOOTRH antibiogram that has been under development since last year. The purpose of the antibiogram is to guide antimicrobial prescribing through various AMS clinical interventions. Development of this

antibiogram will enable improvements with implementation of interventions such as restricting antimicrobial use and strengthened microbiology diagnostic capacity of the hospital laboratory.

In **Mozambique,** MTaPS virtually collaborated with five provincial hospitals (Xai-xai, Inhambane, Chimoio, Lichinga, and Tete) to assess the status of the AMS/AMR committees. The team disseminated an anonymous AMS knowledge, attitude, and practice survey in three hospitals to better understand the context. Despite three reminders and follow-up phone calls with hospital authorities, fewer responses were received than expected. MTaPS will follow up with the three hospitals to encourage health workers to complete the survey. Given the lack of progress with AMS activities, MTaPS met with MOH to clarify responsibilities and worked at the central level with the national medicine regulatory authority (ANARME, PI), AMS TWG, and hospital pharmacy departments. MTaPS highlighted the importance of the ANARME, PI's leadership on the AMR MCC, especially in meeting organization; mapping AMR stakeholders, activities, and domestic funding gaps; and the NAP-AMR monitoring framework. ANARME, PI involvement will also be needed to carry out the WHO-recommended AWaRe classification of antibiotics, facilitate the process to incorporate antimicrobial use in existing regulations, and oversee AMS interventions in priority HFs. Meeting participants also emphasized the critical need to finalize the rapid assessment of stewardship policies and the draft national AMS action plan.

Supporting medicine use and other assessments and surveillance: MTaPS continued to build the capacity of **Uganda's** national drug authority to measure antimicrobial consumption at the national level by assessing its MIS and recommending what will be required to generate antimicrobial consumption data automatically. Previously in **Nigeria**, MTaPS provided technical support and tools used to rapidly assess stewardship policies and activities covering both the human and animal health sectors. The reports were finalized and presented to the AMR-TWG secretariat and members of the AMS subcommittee for review and adoption. The assessment reports provided data to develop an AMS strategic plan covering policy environment, practices, and supply chain management issues that may affect stewardship in the human and animal health sectors. MTaPS collaborated with the AMS-TWG in **Côte d'Ivoire** to organize a workshop with 27 participants to assess systems to monitor antimicrobial use and consumption, which highlighted the lack of a national harmonized system. Very few facilities monitor antimicrobial use, and methods and tools varied between institutions. Further discussions are needed with the information technology (IT) directorate and health information department. MTaPS will organize a meeting to draft SOPs for antimicrobials monitoring.

In the **DRC**, four DTCs conducted their second CQI review and assessed prescribing behaviors and patient knowledge indicators. The assessment showed a significant improvement in the rational use of antibiotics (in terms of the percentage of prescriptions with antibiotics) from August 2021 (round 1) to December 2021 (round 2) in two hospitals: Heal Africa—from 86% to 26% and Kyeshero—from 70% to 50%. However, there was a slight increase in antibiotic misuse at Hopitaux Generaux de Reference (HGR) Bunia—from 50% to 57% and a significant increase at Centre Médical Evangélique Hospital, Bunia (CME Bunia)—from 16% to 33%. General patient knowledge in terms of knowing the routes, doses, frequencies, and duration of the medication prescribed showed a slight improvement in December 2021 compared to August 2021 at Heal Africa—from 82.5% to 92.5% and at Kyeshero—from 78.7% to 81.3, whereas the situation remained almost the same at HGR Bunia—84.5% to 82.7% and CME Bunia—93.2% to 92.5%. In addition, the average dispensing time was also recorded at the four facilities—2.4 minutes in Heal Africa, 2.1 in Kyeshero, 2.2 in HGR Bunia, and 2.6 in CME Bunia.

Strengthening individual and local capacity: MTaPS, in collaboration with the county health departments of Nyeri, Kilifi, and Murang'a in **Kenya**, carried out supportive supervision and mentorship visits in eight, two, and two HFs, respectively, to monitor implementation of their AMS CQI action plans and use of CQI tools.

MTaPS collaborated with the Infection Prevention Network Kenya to support four technical officers from the focus counties to attend a workshop to build their capacity to write scientific abstracts. The initial cohort of trained officers will be able to draft AMS success stories and abstracts using their own data and experiences.

As part of its assistance to Groupe de Coordination Multisectorielle National-Résistance aux Antimicrobiens (GCMN-RAM), DPM, and the National Hospital Evaluation Agency to establish DTCs in 11 new sites in **Mali**, MTaPS supported training sessions for 49 DTC members from the remaining four facilities. This included two AMS training sessions in Bamako (Gabriel Touré University Teaching Hospital and Mali Hospital) and two at the peripheral level (Kalabancoro and Kangaba). Each facility developed a CQI plan to implement AMS activities. After the training in October, MTaPS collected and analyzed data on antibiotics prescriptions, finding that only Mali Hospital and Gabriel Touré Teaching Hospital met the goal of 60% of prescribed antibiotics classified as access according to WHO AWaRe categorization. The other two facilities were each at 30%. Additionally, only Gabriel Touré Teaching Hospital met the goal of having more than 50% of patients who can correctly state the instructions and dosage for antimicrobial prescriptions. The facilities are addressing these weaknesses in their CQI action plans. The MTaPS team in **Burkina Faso** collaborated with the Directorate of Hospital Pharmacy to establish DTCs at the CHR of Koudougou and the university teaching hospital Sanou Souro of Bobo-Dioulasso and trained their members, 30 and 35, respectively, on DTC and AMS. MTaPS will add its support to these DTCs in addition to those previously established and trained to improve their AMS practices. The trainings covered roles and responsibilities and functions of a DTC, an overview of AMR and key interventions, and an orientation to WHO's AWaRe categorization. MTaPS then helped the members draft an AMS action plan for their hospitals.

MTaPS **Uganda** continued working with six hospitals to develop as AMS centers for excellence. The MTCs' AMS teams and the MTaPS technical team oversee the facilities' AMS plan-do-study-act cycles through regular mentorship activities. During the quarter, MTaPS conducted 14 outreach activities, including four CME sessions reaching 139 health care workers (38 males, 101 females), 3 prescriber trainings reaching 60 health care workers (31 males, 29 females), 2 grand rounds reaching 43 health care workers and 138 university students (107 males, 74 females), and a social media campaign.

During the quarter, MTaPS developed the SOW for a technical expert to assist the Uganda National Council of Higher Education and the health professional councils to develop curriculum competencies for undergraduate training on AMR. The technical expert will also write a brief to the National Curriculum Development Center and the Ministry of Education and Sports that synthesizes existing knowledge and highlights the need to incorporate AMR training into education programs at all levels in Uganda.

In **Cameroon**, MTaPS supported the Directorate of Pharmacy, Drugs and Laboratories (DPML) in training 17 members of a 12th DTC at the Nkongsamba Regional Hospital. These staff were physicians

(5), pharmacists (2), and nurses (10). One facilitator from DPML facilitated the training, along with the regional pharmacy focal person from the Littoral Delegation of Public Health and the hospital's DTC champion. As part of the CQI approach, MTaPS helped the HF develop an AMS action plan and select process and result indicators to monitor implementation. A joint AMS/IPC hybrid committee was established in the three MTaPS-supported facilities in **Nigeria**, and MTaPS provided a two-day training for some members of the committee in November 2021. MTaPS also trained the members of the AMS team from the supported facilities at a three-day workshop on facility-level AMS interventions. The teams received resources, such as the national STGs and the EML to help them implement their AMS programs. AMS team members from secondary facilities were matched with team members from the tertiary facility who will mentor them. At the training workshop, the AMS-trained personnel volunteered to help the teams get started with the activities in their facility AMS plans.

MTaPS **Côte d'Ivoire** met with the Africa One Health University Network to plan a joint training for university faculty on One Health approaches. This multidisciplinary training, scheduled for January 2022, will include university authorities (deans, heads of departments/units, etc.) involved in public health, animal health, environment, bioscience, the School of Breeding, the Management Center, as well as law, social sciences, etc. The format will be cascade training, first to orient the deans, then to train trainers using both online and in-person training using AMR and IPC modules. MTaPS supported the AMS-TWG in organizing a two-day joint site visit to evaluate DTC capacities and functionality in one private clinic (Polyclinique Indenie in Abidjan) and one regional hospital (Regional Hospital of Divo). The evaluation revealed that the Polyclinic of Indenie had no DTC and scored 8/55 on the checklist, which is basic level. The Regional Hospital of Divo had a DTC, however, it was not carrying out any AMS activities. It is also at the basic level with a score of 24/55. The evaluation team recommended that the Polyclinic of Indenie start a DTC and that both DTCs receive AMS training. The AMS-TWG shared the AMS toolkit and other supporting documents with the facilities to improve their capacity to oversee AMS activities. MTaPS supported the AMS-TWG in disseminating 1,000 posters with AMS messages to the national pharmacists' association to distribute to private pharmacies. Additionally, MTaPS collaborated with the AMR Secretariat and the AMS-TWG to deliver posters and AMS communication materials to 40 HFs (university teaching hospitals, regional hospitals, private clinics, military health services, veterinary HFs, and directorates of the MOH, Animal Resources, and the Environment). The AMS-TWG will monitor the display of the posters and continue the dissemination during field visits to MTaPS-supported facilities that have not received them yet (five regional hospitals, two veterinary clinics, and two private clinics).

In **DRC**, MTaPS collaborated with the National Pharmacovigilance Center and DPM to select five more health institutions to establish DTCs: Centre Hospitalier Kinkole in Kinshasa, Cliniques Universitaires Lubumbashi and Hôpital Kenya in Lubumbashi, and Mwengeji and Dilala hospitals in Kolwezi. MTaPS and the Center prepared for DTC member training at the five facilities. Then, the USAID Mission and DRC GHSA team, including a representative from MTaPS, conducted joint site visits in Lubumbashi, in the province of Haut-Katanga, to introduce GHSA activities, which provided MTaPS an opportunity to launch AMR activities in this part of the country. During the visits, MTaPS also conducted an AMR sensitization meeting at Cliniques Universitaires Lubumbashi for health care workers, including representatives from the human and animal health sectors. MTaPS presented on the GHSA program and WHO IHR benchmarks, DRC's JEE scores, drug discovery gap and AMR, and AWaRe categorization of antimicrobials.

MTaPS facilitated a notification from the **Bangladesh** Ministry of Health and Family Welfare (MOHFW) Quality Improvement Secretariat to Cumilla Medical College Hospital to establish an AMS committee and develop an AMS implementation plan. The hospital organized a workshop to form a committee with TOR and develop a time-bound plan to implement AMS activities in the hospital.

MATERNAL, NEWBORN, AND CHILD HEALTH - QUARTER PROGRESS FOR FY22Q1

The MTaPS maternal, newborn, and child health (MNCH) core-funded portfolio contributes to achieving Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all at all ages and prevent child and maternal deaths by increasing global awareness of the barriers to access to essential MNCH medicines and supplies and by providing technical assistance to reduce these barriers at the global, regional, and country levels. 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.

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Year 2, Activity 1.3.1: Strengthen civil society engagement to increase access to and use of safe, quality MNCH medicines and technologies and effective pharmaceutical services

Although the engagement of civil society is recognized as key for ensuring access to high-quality services and is included in community health platforms in many countries,[1] the involvement of civil society in supporting increased access[2] to and appropriate use of medical products, and specifically for MNCH, is not a commonly prioritized component. Thus, MTaPS saw the need to explore civil society engagement interventions with—or that could include—a component on improving the availability, affordability, and appropriate use of quality MNCH products.

In Q1, MTaPS finalized and shared the discussion paper *Engaging Civil Society in Social Accountability to Improve Access to and Appropriate Use of Quality Maternal, Newborn, and Child Health-Related Medical Products*, which reviews lessons learned and experiences from social accountability research and identifies implications for policy and practice for initiatives seeking to engage civil society in improving access to and appropriate use of quality MNCH medical products. The paper proposes approaches for designing social accountability interventions that are adaptive, promote learning, and are likely to sustainably improve access to and use of quality MNCH medical products. The role of different actors in the success or failure of social accountability interventions is also explored. The paper provides a basis from which to further explore leveraging civil society in PSS efforts. Discussions MTaPS held with USAID and the Momentum Integrated Health Resilience team highlighted potential avenues for dissemination of this work as well as potential in-country collaboration. MTaPS has included a dissemination activity in the year 4 work plan.

[1] https://www.communityhealthroadmap.org/

[2] This activity is designed to influence the different dimensions of access (i.e., availability, accessibility, acceptability, and affordability).

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

MTaPS continues to support countries in ensuring the quality of MNCH products by strengthening product registration systems and improving procurement processes at sub-national levels.

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

In its follow-on work to the year 1 registration mapping activity, MTaPS has been supporting Mozambique's regulatory authority (National Directorate of Pharmacy [DNF]) to streamline registration of MNCH medicines by using findings and recommendations from the mapping. During this quarter, the virtual training on the assessment of bioequivalence (BE) studies as a part of the evaluation of MNCH generic medicines dossiers was conducted in Mozambique October 20–22 with 13 participants from the DNF. Among the seven participants who submitted a post-test, there was demonstrated improvement in knowledge from the pre-test score, from an average of around 40% to more than 80%. All participants agreed that the training would be useful in their work and that the materials used were helpful. The DNF was very satisfied with the training. The report on the training and the set of materials in English and Portuguese have been finalized. The DNF has agreed to hold a workshop on registration procedures, quality of oxytocin, and prioritization of registration of MNCH medicines with manufacturers, their representatives, and other stakeholders in early 2022.

MTaPS had been in discussions with the Southern African Development Community (SADC)/ZAZIBONA secretariat to hold a knowledge exchange with regulators from member states on assessing oxytocin, prioritizing MNCH medicines, and the value of joint assessments. At the request of the SADC, MTaPS revised the scope for the knowledge exchange to focus on prioritizing MNCH medicines and reliance on regulatory decisions made by reference regulatory authorities and international organizations such as the WHO for increased efficiency in registration of MNCH medicines using case studies and examples and focusing less on assessment of oxytocin through this forum, as it was felt it had been adequately addressed through other activities. The revised scope was approved by the SADC secretariat in December 2021, and planning of the activity will move forward in January 2022.

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

Medical devices, just like any other medical product, require strong regulatory systems—as part of larger pharmaceutical systems—to ensure their quality, safety, and efficacy. Medical devices for use in MNCH are considered essential commodities and are mostly procured by national governments for public-sector use, which highlights the important role of national regulators in ensuring their quality, safety, and efficacy. It is estimated that more than 30% of WHO member states do not have regulations to control medical devices, and WHO found that of low-income countries with data available, only 45% have a legal framework for medical devices in place.[3] An MTaPS mapping of nine countries revealed that

[3] Global Atlas of Medical Devices, WHO 2017. Available at: https://apps.who.int/iris/handle/10665/255181

only three were implementing regulation of medical devices, six of the nine had legal frameworks for regulation, and guidelines for the regulation of medical devices, including MNCH medical devices, are lacking. These findings spurred MTaPS to start to work to strengthen regulation of MNCH medical devices (e.g., oxygen concentrators, pulse oximeters, blood pressure monitors) across the African continent

In pursuit of this aim, following a series of meetings, MTaPS, the African Medical Devices Forum (AMDF) of the African Union Development Agency's New Partnership for Africa's Development (AUDA-NEPAD), and WHO decided to collaborate on developing a document highlighting key considerations for regulating MNCH medical devices. The document will go beyond market authorization through the life cycle of the device and complement the four guidance documents on regulation of medical devices recently developed by AMDF and awaiting validation. In this quarter, MTaPS completed its internal review of the considerations for regulating MNCH medical devices, and the consultant is finalizing the draft document to submit to the AMDF steering committee for review in early 2022. The consultant is also positioning with AMDF for the considerations document to be part of the dissemination of the four AMDF guidelines on medical device regulation. Additionally, MTaPS participated in the AUDA-NEPAD AMDF Technical Committee meeting and presented a brief on the support offered to improve regulation of MNCH medical devices.

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

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

To contribute to the MTaPS sub-objective on PSS and advancing the global learning agenda, MTaPS is working in Nepal to improve sub-national procurement of MNCH medicines. The report of a mapping of sub-national procurement practices in four provinces is being finalized and will be shared with USAID and the MOH. Preparation is underway for the workshop to discuss the findings, come to agreement on next steps, and generate recommendations for improving current local procurement practices. The workshop has been planned for January at the MOH's request. Invitation letters have been sent out and the venue secured.

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

In year 3, MTaPS began working with USAID and UNICEF to plan a series of consultative meetings with stakeholders to review the state of access to and appropriate use of amoxicillin and gentamicin, determine action steps, and define the roles of partners and MOHs to increase uptake of amoxicillin and gentamicin. During this quarter, MTaPS met with colleagues from the USAID Procurement and Supply Management (PSM) and Promoting the Quality of Medicines Plus (PQM+) projects several times to discuss the roles of each partner, confirm the scope of the activity, and define next steps. The concept note for the activity was finalized and shared with USAID and UNICEF. The advisory group met on

November 30 to discuss the concept note, share a data collection sheet that partners can contribute to, and begin planning for a presentation of the activity to the Child Health Task Force (CHTF) commodities sub-group. MTaPS prepared for the presentation with the CHTF commodities sub-group scheduled for January 11, when MTaPS, Results for Development (R4D), and PSM will present short summaries of evidence related to the bottlenecks to encourage members to submit evidence from their own project work. Data from partners are being compiled as evidence, and a review of peer-reviewed literature is underway. The series of consultative meetings is planned for Q2.

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

Year 3, Activity 5.1.1: Validation of the reproductive, maternal, newborn, and child health (RMNCH) forecasting supplement

MTaPS has updated the RMNCH forecasting supplement, as applying best practices in quantification of RMNCH medical products has a direct impact on product availability and on the potential to save lives. With FY19 year 1 funding, MTaPS updated the 2016 forecasting guidance for lifesaving essential RMNCH commodities, first developed by a number of partners under the United Nations Commission on Life-Saving Commodities for Women and Children. With partners' support, MTaPS updated the guidance to align with recent changes in WHO recommendations.

During this quarter, MTaPS completed the revision of the forecasting supplement, taking into consideration the feedback from country teams in the recent validation exercise and USAID's final comments. Simplified algorithms were included for non-severe cases of pneumonia and diarrhea with examples. The forecasting supplement is being edited prior to finalization. Year 3 Activity 5.1.2 (Translation of RMNCH forecasting supplement into French) will begin as soon as the English version is finalized.

Year 2, Activity 5.2.1: Improve systems for managing and administering oxygen and other medical devices of the respiratory ecosystem

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. After previous discussions with WHO and USAID in Year 3 Q4 , it was agreed that MTaPS would develop guidelines for the quality assurance of oxygen. These would complement other operational guidance that WHO is developing on pressure swing adsorption oxygen plants. As agreed with WHO during Year 3 Q4 , MTaPS prepared an outline and proposed scope for the activity to develop a document on quality assurance of oxygen through regulation and other strategies. WHO received the SOW and proposed a meeting with its medicines and prequalification teams in Q2. MTaPS will recruit a consultant to work on this activity.

COMPLETED QUARTER 1 DELIVERABLES

Discussion paper: Engaging Civil Society in Social Accountability to Improve Access to and Appropriate Use of Quality Maternal, Newborn, and Child Health-Related Medical Products

PREVENTION OF CHILD AND MATERNAL DEATHS

This section highlights selected areas of work and achievements during the past year of the MTaPS country portfolios with MNCH field funds that will improve access to and appropriate use of safe, effective, and quality-assured medicines and pharmaceutical services for women and children. Of the 11 MTaPS countries receiving field funding, eight (Bangladesh, DRC, Jordan, Indonesia, Mali, Mozambique, Nepal, and Rwanda) received MNCH funding up to the end of year 3. MTaPS also receives MNCH funding through the two regional bureaus—Asia and the Intergovernmental Authority on Development (IGAD).

Although most activities that MTaPS implements in these countries are to strengthen pharmaceutical systems in general and are not necessarily focused specifically on MNCH medicines and technologies, they contribute to improving women's and children's health through governance, building human resource capacity for pharmaceutical management, regulatory systems strengthening, strengthening the use of information for decision making, financing, supporting pharmaceutical services, and strengthening PV and AMS. More details on these activities can be found in the country-specific sections of this report.

GOVERNANCE

Regulation

In Mozambique, Nepal, and Rwanda, MTaPS is ensuring that an adequate legal and regulatory framework is in place that provides for the establishment and/or effective operation of a national medicines regulatory authority (NMRA). In **Mozambique** during year 3, MTaPS supported the DNF in its transformation into the autonomous authority, ANARME, PI, through the establishment of an effective regulatory framework, capacity building, and support to the strategic plan. During this quarter, MTaPS Mozambique supported the finalization of the Regulation on the Distribution, Import, and Export of Medical Products as requested by the ANARME, PI. This regulation allows the ANARME, PI to further regulate the pharmaceutical sector by securing the pharmaceutical supply chain to ensure the quality and safety of medical products, including those for MNCH, from manufacture through distribution channels to the end user. The regulation includes minimum standards that must be met to ensure the quality and integrity of medicines, including MNCH medicines, throughout the supply chain.

In **Nepal**, MTaPS is supporting the establishment of a combined Drug and Cosmetic Administration (DDA) and a proposed reorganization and decentralization of the DDA. The reorganization includes both the DDA and the national medical laboratory. During this quarter, MTaPS collaborated with the DDA to develop job descriptions for seven key positions in the reorganized structure of the DDA. Once in effect, the revised organogram will help the DDA perform its key regulatory functions more efficiently and ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medical products, including for MNCH. Additionally, this quarter MTaPS continued to support the update of the drug law by organizing several consultative meetings with the legal core group to finalize the updated law and ensure that all legal recommendations from the WHO Global Benchmarking Tool (GBT) assessment are included. The drug law will serve as the foundation for overall improvement in pharmaceutical management in the country, including for MNCH medicines, and will

increase the DDA's regulatory maturity level since it introduces new roles and responsibilities for the DDA.

MTaPS **Rwanda** continued to support the Rwanda Food and Drugs Authority (RFDA) in strengthening its regulatory system and streamlining registration of MNCH medical products by developing a five-year business plan that guides the institution with options for its growth and financial sustainability, as well as the development of a strategic plan that has been approved by the RFDA board.

In **DRC**, MTaPS supported pharmacist inspectors to conduct field visits to pharmaceutical wholesalers and NGOs in two provinces to inspect whether imported products/medicines including for MNCH, are registered and authorized for sale in the DRC market. The visits also identified products with registration status that will expire in the next six months; wholesalers were alerted to renew their registration. In Ituri province, the Provincial Health Inspectorate seized several products imported by a NGO due to lack of import and marketing authorization documentation. The customs service is continuing to systematically use the marketing authorization directory to check whether medical products, including those for MNCH, are registered before engaging in any quality control analyses for such products at the country's points of entry. Also in DRC, MTaPS supported the regulatory authority to hold a four-day training workshop on processing marketing authorization requests for 20 new members of the registration committee.

Medicine coordination TWGs

In **DRC**, MTaPS continues to support the provincial TWG on medicines in two provinces to improve coordination among partners and strengthen the capacity of the province to better steward the pharmaceutical system at the provincial level. The TWGs review and validate forecasts and supply plans, with a special focus on MNCH medical products, and review the ordering, distribution, and stock status in health zones (HZs). During this quarter, MTaPS supported provincial TWG meetings in the two provinces. In one of the provinces, TWG members decided to establish a commission to estimate the quantity of products at risk of expiration in the regional distribution centers to mitigate the risk of waste.

BUILDING HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT

In **DRC**, MTaPS, in collaboration with the Global Fund (GF), supported the *division provincial de la santé* (provincial health division [DPS]) in Ituri province to hold a training on the quantification of medicines and other health products, including for MNCH, for the management teams in 24 HZs. The training aimed to build the capacity of the management teams to forecast needs and improve the management of health products at the operational level. Additionally, MTaPS conducted joint supervisory visits with provincial and health zone supervisors to monitor pharmaceutical management, availability of MNCH products, logistics data collection, and reporting at health facilities. The visits found low availability of MNCH products in most of the health facilities visited in Nord Kivu, especially for amoxicillin dispersible tablets, magnesium sulfate, calcium gluconate, ceftriaxone, and oxytocin, which will be urgently addressed by the provincial TWGs as well as the HZs.

In the **Philippines**, MTaPS is working with the Department of Health (DOH) to develop eLearning courses for the DOH eLearning platform. These eLearning modules are related to PSS (two modules),

warehouse operations management, and procurement and supply chain management (PSCM) and will further develop the capacity of PSCM staff to increase efficiency and effectiveness of PSCM functions and improve management of medical products, including for MNCH.

In **Rwanda**, MTaPS collaborated with the RFDA to operationalize an eLearning course on medicines evaluation and registration, which will enable RFDA assessors to acquire/refresh knowledge they can apply during the evaluation of dossiers, including for MNCH medicines.

REGULATORY SYSTEMS STRENGTHENING

In Bangladesh and Nepal, MTaPS continued to support regulatory authorities in improving the regulatory system and raising the maturity level as per the WHO GBT assessments, thereby ensuring the quality of medicines and pharmaceutical services for women and children. In **Bangladesh**, MTaPS assisted the Directorate General of Drug Administration (DGDA) to address key challenges identified in the recent WHO assessment with the aim of increasing the DGDA's maturity level to a score of 3. During this quarter, MTaPS collaborated with the DGDA to draft a roadmap for the quality management system (QMS) implementation plan in line with the WHO guidelines and the latest national regulatory authority manual. MTaPS **Nepal** collaborated with the DDA, WHO, and other key stakeholders this quarter to develop a maturity level action plan based on the WHO GBT assessment to improve the regulatory system and increase the DDA's regulatory maturity level. Also this quarter, MTaPS supported the DDA in the revision of the QMS manual and to add a training plan on internal quality audit. Development and implementation of the QMS will ensure that the DDA has a sustained and uniform process in place to effectively execute its critical regulatory functions for all medical products, including for MNCH.

Under **Cross Bureau**, MTaPS continued this quarter to optimize the online regulatory information management system software, Pharmadex. MTaPS is supporting **Mozambique** and **Nepal** to adapt and establish Pharmadex to streamline the medicine registration process, which will result in improvements to MNCH medicine registration status. In Nepal, MTaPS donated equipment for Pharmadex implementation to the DDA and updated Pharmadex to incorporate feedback and input from the DDA.

In **Nepal** and **Rwanda**, MTaPS is supporting the regulatory authorities to address some of the specific bottlenecks identified in the mapping of the registration of MNCH medical products conducted using core Maternal and Child Health and Nutrition funding. The mapping of registration of MNCH medical products in **Nepal** identified poor data quality of the DDA's Drug Administration Management System, a limited number of assessors, and a weak drug regulatory setup. MTaPS is supporting the DDA in addressing each of these areas, including by establishing a QMS for the DDA. This quarter, MTaPS helped draft Good Pharmacy Practices (GPP) and Good Distribution Practices (GDP) guidelines. In collaboration with DDA inspectors and stakeholders, MTaPS also revised and completed a pilot test of the electronic inspection tool for GPP inspections. The GDP inspection tool is now ready for piloting. Introduction of the WHO GPP and GDP inspection will improve service provision and patient care and will greatly improve quality assurance of products, including those for MNCH, which are procured at different levels of the system.

MTaPS conducted a five-day training on the assessment of medical devices and in vitro diagnostics in **Nepal, Rwanda,** and **Tanzania**. In **Nepal,** MTaPS drafted the situational analysis of medical device

regulation and registration and developed an implementation strategy to strengthen medical device regulation and registration. These activities will contribute to increasing the number and quality of registered medical devices and in vitro diagnostics, including for MNCH, on the market.

During this quarter, MTaPS **Rwanda** finalized regulations and guidelines on medical gases, including oxygen, in the country and submitted them to the USAID Mission.

Under **Asia Bureau**, MTaPS is conducting a competency mapping exercise for pharmaceutical regulation in four Asian countries to determine the gaps and weaknesses and make recommendations to address them. Data collection was completed in Nepal, was initiated in the Philippines, is underway in Bangladesh, and is being planned in Vietnam. The exercise will enable a more structured approach to strengthening the capacity to regulate the pharmaceutical market in Asia. Under the **East African Community (EAC)/IGAD Bureau**, MTaPS worked closely with the IGAD Secretariat to plan for and hold a regional Pharmaceutical Manufacturing Conference in November to discuss issues affecting local production, including for MNCH medicines, in the region. Among topics of discussion were the impact of the COVID-19 pandemic on manufacturing and supply chains and interventions for development of regional manufacturing and supply resilience in the Horn of Africa, opportunities for local pharmaceutical production, pharmaceutical pooled procurement, and harmonized regulatory and quality standards in the IGAD region. MTaPS also worked with Kenya's Dawa Pharmaceuticals to offer technical assistance aimed at capacity building of local manufacturers on adherence to good regulatory practices and PV.

This quarter, the MTaPS **Mali** MNCH work plan was approved, and MTaPS will support the Pharmacy and Medicines Directorate to operationalize the Marketing Authorization Commission, streamline registration of MNCH medicines by implementing SOPs for market authorization, strengthen reliance on prequalification and other stringent regulatory bodies, and provide support to update and disseminate the directory of registered medical products.

STRENGTHENING THE USE OF INFORMATION FOR DECISION MAKING

Health Technology Assessment (HTA)

HTA determines the value of a health technology (e.g., drug, medical device, diagnostic test, medical procedure), including those for MNCH, at different points in its lifecycle and is an important tool for countries to make decisions to promote an equitable, efficient, and high-quality health system as well as determine their strategy for universal health coverage (UHC).

Under **Cross Bureau**, MTaPS held a workshop with participants from eight African countries to disseminate the HTA Roadmap through a regional workshop in Africa. Following the workshop, MTaPS held preliminary discussions with Ethiopian HTA experts regarding targeted support using HTA Roadmap approaches. Under **Asia Bureau**, MTaPS organized the HTAsiaLink preconference event "Health Technology Assessment Pathways in LMICs: Scaling Up for Sustainability of UHC in Asia" in October. The event featured the HTA Roadmap and advocated for the use of country-specific needs related to HTA. For example, needs for capacity building or technical assistance were mapped as part of the event to inform future support. There were 220 participants from Indonesia, the Philippines, Vietnam, Singapore, and other countries. In **Indonesia**, MTaPS is supporting the MOH to review and improve HTA topic selection guidance. During this quarter, MTaPS' support included conducting focus

group discussions with key stakeholders to identify weaknesses in the HTA topic selection process and to provide recommendations to improve the guidance.

Systems for information management

In **Bangladesh**, MTaPS supported the Directorate General of Family Planning (DGFP) to scale up the eLMIS for RMNCH commodities. This quarter, MTaPS provided technical assistance to UNFPA to organize TOTs on the eLMIS in six districts and cascade training in four sub-districts of Bagerhat district on basic logistics management and entering the monthly MNCH medicine data using the eLMIS. Moving forward, MNCH medicine stock and consumption data from five additional districts will be available in the portal for decision making. National and district-level health managers are using the system for program monitoring, planning, and procurement purposes. In two districts, MTaPS, the DGFP and UNFPA organized a workshop with warehouse in-charges and district and sub-district managers for troubleshooting and follow-up on stock management of misoprostol, magnesium sulfate, oxytocin, and other maternal and child health drugs and family planning commodities. As a result, participants will conduct physical inventories periodically and cross-validate service data with logistics data. District managers will carry out regular data analysis and base decisions on the data, and the monitoring system will be strengthened. MTaPS also supported the MOHFW to organize a high-level workshop to review the implementation status of the electronic asset management system (eAMS), which tracks medical equipment, including for MNCH, and its status from procurement to decommissioning. The objective was to orient hospital managers on the eAMS' importance, its functionalities, effective use of this system, how data can be used for decision making, and the role of stakeholders. Improved asset management improves the quality of service, especially for women, newborns, and children, who are frequent users of medical devices for diagnosis and treatment.

In **DRC**, to increase logistics data visibility, including for MNCH medicines, using existing tools and platforms, MTaPS supported the DPS to roll out InfoMED, which is the logistics and patient data visualization platform for DRC. During this quarter, MTaPS supported the DPS to organize a logistics data analysis meeting on InfoMED's functionality. Participants noted low levels of timeliness in data reporting in the InfoMED platform compared to high levels of timeliness in the DHIS2 platform due to faulty data migration from DHIS2 to InfoMED. In the **Philippines**, MTaPS is supporting the DOH to implement an eLMIS and has supported the validation of the requirements and selection of the software.

FINANCING

In **Indonesia**, MTaPS is supporting the MOH's health financing unit in tracking pharmaceutical expenditure for priority health conditions, including MNCH. This includes supporting the development of a landscape report of data sources and data identified for the tracking exercise. Following the two virtual OneHealth Tool (OHT) trainings conducted in the previous quarter under **Asia Bureau**, MTaPS completed the training report and the summary of discussions held with participants on the utility of the OHT for future costing and planning needs related to pharmaceutical benefits packages. MTaPS also continued conversations with the four countries involved in the regional trainings (Kyrgyzstan, Bangladesh, Nepal, and the Philippines) to understand each country's potential need for additional support for OHT application. The tool can enable health planners to conduct more evidence-based pharmaceutical planning and budgeting, including how to use the tool to assess the health system

implications of a program-specific plan (e.g., a five-year maternal and child health strategy). In **Bangladesh**, MTaPS organized a consultative workshop this quarter on pharmaceutical expenditure tracking focusing on MNCH with the MOHFW's Health Economic Unit (HEU). Following the OHT training in the previous quarter, MTaPS is discussing with the HEU the possible implementation of the costing tool to plan and cost the country's pharmaceutical benefits package as part of overall national health sector strategic planning.

SUPPORTING PHARMACEUTICAL SERVICES

MTaPS provides technical assistance to strengthen supply chain systems to improve availability of essential medicines; improve the quality of pharmaceutical care (e.g., prescribing and dispensing practices); and help countries strengthen their PV systems at the national level and points of care. Additionally, using funding from the GHSA, MTaPS works with partner governments to build in-country capacity to prevent and control HAIs and improve stewardship/rational use of antimicrobial medicines.

Improving quality of pharmaceutical care

In **DRC**, MTaPS supported the national MNCH program to organize a validation meeting of the newly developed treatment protocols and job aids for the use of oxygen, heat-stable carbetocin, tranexamic acid, and folic acid. The validated protocols and job aids will be submitted to the MOH for its adoption, after which they will be printed and disseminated to health facilities.

In **Nepal**, MTaPS finalized a plan to pilot the Supervision, Performance Assessment, and Recognition Strategy (SPARS) to build district-level capacity and improve performance in supply chain management of medicines and health supplies. MTaPS organized an orientation in the selected districts and municipalities in the provincial headquarters (HQ), and Kathmandu University has customized the training materials and assessment tool for SPARS implementation in the Nepalese context.

In **Rwanda**, MTaPS is strengthening the delivery of high-quality, patient-centered care, including for MNCH. Following the development of pharmacy service standards aligned with Rwanda's health care quality and accreditation system, MTaPS is collaborating with the MOH to prepare for their dissemination and integrate them into the hospital accreditation approach with the USAID Rwanda Integrated Health Systems Activity.

Under **Cross Bureau,** MTaPS is conducting a rapid literature review to collate evidence on quality of services, including for MNCH, provided by retail drug outlets and the extent to which equitable access to quality pharmacy services is expanded. After limited publicly available data were found in the literature on the geographical distribution of retail drug outlets and the quality of services they provide, the contracting officer's representative (COR) requested that MTaPS consider culling existing evidence on the quality of services in the literature. MTaPS developed a timeline for a systematic literature review and manuscript development. The literature search is now underway.

Strengthening PV

In **Bangladesh**, **Nepal**, and the **Philippines** and with **EAC/IGAD** and **Cross Bureau** funds, MTaPS is strengthening PV systems. PV is crucial to ensuring the safety and quality of MNCH medicines. In

Mozambique, **Rwanda, and Tanzania**, MTaPS is supporting specific PV activities for tuberculosis (TB) and/or Human Immunodeficiency Virus (HIV). In **Bangladesh**, MTaPS supported the DGDA to address PV-related weaknesses by developing a master plan for meetings, forming a working committee to update national PV guidelines, and reviewing the DGDA organogram to accommodate a PV department.

After conducting an initial situation analysis, MTaPS **Nepal** supported the development of a detailed implementation and risk-based communication plan for strengthening PV. MTaPS also facilitated a discussion with the DDA on the draft software requirements specification for PV and has started customizing the Pharmacovigilance Monitoring System (PViMS) for the Nepalese context. Strengthening PV will support the DDA in improving its maturity level and will also support appropriate use of safe and effective essential medicines, including MNCH medicines, as well as vaccines and medical devices.

In the **Philippines**, MTaPS began preparing the content of an eLearning course on PV to be uploaded to the DOH's eLearning platform.

Under **Cross Bureau**, MTaPS continued to collaborate with the West African Health Organization (WAHO) and the 15 Economic Community of West African States (ECOWAS) countries to develop a web-based platform for improving PV systems in the ECOWAS region.

Under the **East Africa IGAD Bureau**, MTaPS continued to collaborate with the IGAD Secretariat to discuss and review implementation of PV activities. This quarter, discussions focused on the prioritization of activities, which include the development of a costed work plan and an in-service training curriculum, a regional TOT, capacity building of selected NMRAs to analyze PV data, and support for local manufacturers on adherence to good regulatory practices and PV. MTaPS also engaged the Pharmacy and Poisons Board (PPB), which is Kenya's NMRA and a designated regional center of regulatory excellence (RCORE) in Africa in PV and post-market surveillance (PMS), to boost its capacity to utilize PV data for decision making. MTaPS provided technical assistance to the PPB in the development of a two-year work plan for PV/post-market surveillance and to disseminate the plan to the MOH; public health programs; pharmaceutical industry stakeholders (e.g., multinational companies, local manufacturers); and development partners, including USAID.

IPC and AMS

The focus of the MTaPS GHSA approach and implementation framework is to help countries make progress on the pathway to the next level of WHO JEE capacity regarding the International Health Regulations (IHR). Under the **GHSA** portfolio, during this quarter, MTaPS supported 13 countries—Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, DRC, Ethiopia, Kenya, Mali, Mozambique, Nigeria, Senegal, Tanzania, and Uganda—to contain AMR by improving IPC, AMS, and MSC. Improving IPC practices and optimizing antimicrobial use in MTaPS-supported health facilities can contribute to improving the quality of care for women and children.

During this quarter, several countries supported national-level IPC efforts. In Cameroon, Mali, and Nigeria, MTaPS supported the development of national IPC strategic plans, and Kenya launched its finalized national IPC strategic plan. This will have a positive impact on MNCH outcomes and quality of care. In Mali and Tanzania, MTaPS provided ongoing support to the IPC TWGs, and in Cameroon and

Kenya, MTaPS helped to revise and finalize national IPC guidelines. Also in Kenya, MTaPS supported the development of a national IPC M&E framework. MTaPS Tanzania supported the development of guidelines for the surveillance of HAIs. In Bangladesh, Côte d'Ivoire, Kenya, Mali, Mozambique, Nigeria, Senegal, and Uganda, MTaPS worked to strengthen facility-level IPC through efforts to strengthen governance and coordination of IPC programs using a continuous quality improvement approach to assess practices and develop facility IPC action plans. It also strengthened health care workers' knowledge through training, supervision, revision, and implementation of IPC guidelines. IPC is an essential part of quality of care for mothers, newborns, and children.

To promote the optimized use of antimicrobials, MTaPS supported AMS at the national and facility levels. This quarter, MTaPS Nigeria and Uganda supported the development of national AMS plans, and in Côte d'Ivoire, MTaPS supported the AMS TWG to disseminate AMS-related communications and posters in health facilities. MTaPS in Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, DRC, Kenya, Mali, Mozambique, and Tanzania worked to establish new or strengthen existing MTCs/AMS committees. In Tanzania, for example, MTaPS supported seven MTCs to develop or update their hospital formularies using Tanzania's STGs/EML, which includes the AWaRe categorization of antimicrobials. The AWaRe classification of antibiotics provides guidelines on which antibiotics to use and when. MTaPS Côte d'Ivoire and Nigeria are currently supporting the AWaRe categorization of antibiotics process, and Kenya has recently validated the National Medicines Formulary, which incorporates the AWaRe categorization of antibiotics. MTaPS supported Jordan's MOH to raise community awareness on AMR by developing a set of health communication messages, including social media posts on AMR and engagement with health care providers, targeted at the community to improve understanding and awareness of AMR, in line with the NAP on AMR. Additionally, MTaPS supported the MOH to hold a series of events at selected MOH hospitals to encourage health care providers to take a pledge to "handle antimicrobials with care" and become "AMR Awareness Champions". Most GHSA-supported countries celebrated WAAW in November with workshops, meetings, and sensitization activities. Appropriate use of antibiotics is an important component of quality care for women, newborns, and children.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Year 2/Activity 2.1.1: Support streamlining registration of MNCH products in at least one country • Conduct country forum on registration of MNCH medicines in Mozambique • Hold a regional knowledge exchange forum in SADC region on assessment of MNCH medical products, with a focus on oxytocin, prioritization of MNCH products, and reliance	Mar 2022
Year 3/Activity 2.1.1: Improve regulation of MNCH medical devices at the regional level • Submit the document of considerations for regulating MNCH medical devices to AMDF for review and plan for the capacity-building workshop	Feb 2022

Year 2/Activity 3.1.1: Support implementation of promising procurement practices to improve access to safe, effective, affordable, quality-assured medical products for women and children • Finalize the report of the mapping of procurement practices and conduct the workshop to develop a consensus of next steps to improve local procurement practices in Nepal	Jan-Feb 2022
Year 2/Activity 3.3.1: Map the institutionalization of pediatric amoxicillin formulations in countries • Develop the evidence briefs in collaboration with other partners including PQM+ and PSM • Plan for the consultative meetings on improving access to and appropriate use of amoxicillin	Jan-Mar 2022
Year 3/Activity 5.1.1: Validation of RMNCH forecasting supplement • Finalize the RMNCH forecasting supplement and start the French translation	Jan 2022
Year 2/Activity 5.2.1: Improve systems for managing and administering oxygen and other medical devices of the respiratory ecosystem • Meet with the WHO medicines and prequalification teams and agree on the scope of work for the guidelines to ensure quality of oxygen with WHO; recruit a consultant • Develop draft guidelines	Jan-Mar 2022

OFFICE OF HEALTH SYSTEMS, CROSS BUREAU FUNDING - QUARTER PROGRESS FOR FY22Q1

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

During this quarter, MTaPS finalized the implementation plan for this activity. MTaPS welcomed a new team member in December (the Senior Principal Technical Advisor for Governance and Capacity Building) and oriented him on the activity. The team developed the study design and finalized the study protocol and also drafted a SOW for a consultant who will support the activity.

ACTIVITY 2.4.1: COMMON STANDARDS FOR REGULATORY INFORMATION MANAGEMENT SYSTEM (IMS) TOOLS IN LOW- AND MIDDLE-INCOME COUNTRIES

Activity 2.4.1.1: Dissemination and roll-out of common standards

This quarter, MTaPS and PQM+ prepared for and convened the second consultation on October 27, 2021, the objective of which was to develop the use case for the set of minimum common standards and identify the selection criteria for the minimum common standards. However, participants recommended a need to further clarify the scope and depth of the standards selection process. Based on the feedback, MTaPS and PQM+ held a series of internal meetings to refine the scope and clarify the categories of standards. The teams then finalized a background paper and Excel-based workbook, which they shared with the group of experts to provide feedback on the selection of standards. The background paper presented a collation of existing standards for regulatory IMS identified through a desk review and served as the reference for stakeholders to use in selecting the set of minimum common standards for regulatory IMS. Feedback from the experts is due January 11, 2022, after which MTaPS will collate and synthesize the feedback. MTaPS and PQM+ also developed the outline for the advocacy brief, which will argue for the importance and benefits of having and adopting minimum common standards for regulatory IMS.

Preliminary discussions were held with WHO to establish the mode of collaboration and provide inputs and comments on the consultative process, together with comments on the standards for regulatory IMS. A follow-up meeting is scheduled for January. Additionally, MTaPS drafted the agenda for a meeting to engage selected NMRAs, regional economic communities, and software developers, which is planned for January 26.

Activity 2.4.1.2: Optimize Pharmadex and the PharmacoVigilance Monitoring System (PViMS) to reflect common standards, add vaccines and medical devices, and incorporate emergency use authorizations and monitoring/oversight

This quarter, MTaPS continued software development of a comprehensive MIS for an NMRA, with a module for each of the typical departments of an NMRA, in alignment with the WHO GBT's structure. The Registration workflow was tested and is undergoing changes in Nepal, and the basic Marketing Authorization workflow was deployed on the Mozambique server for internal testing by the ANARME,

PI. The Import workflow was also deployed on the Mozambique server for testing and internal review by the ANARME, PI. While MTaPS continues discussions with the software developer on defining dashboards with key performance indicators, the team is working on a prototype using commonly available business intelligence solutions like Google Data Studio, PowerBI, Grafana, and Tableau. The draft software requirements specifications (SRS) structure is in place with content and awaits final input from the Report on Recommended Common Standards for Regulatory IMS. Additionally, the source code of the new international Pharmadex is currently available on GitHub and is being updated on a weekly basis as more functionality is developed. The team plans to implement automated deployment of the software to enhance sustainability and provide easy access to software upgrades for any country.

ACTIVITY 3.3.1: MEASURING PHARMACEUTICAL SYSTEM STRENGTHENING, INCLUDING ACCESS TO MEDICINE

Following approval of the pilot protocol from the COR, MTaPS met with the COR team on October 15 to discuss country selection. Bangladesh, Nepal, Tanzania, and Uganda were selected based on feedback and information received from colleagues regarding feasibility. MTaPS informed the WHO point of contact and regional advisors of the final selection of countries and shared an abbreviated version of the protocol for the PSS Insight 2.0 pilot. The desk reviews for Bangladesh and Nepal are underway and expected to be completed in January. The Excel-based tool will be finalized following the completion of the Bangladesh desk review. MTaPS also developed a draft framework document for the redevelopment of pssinsight.org. The SOW for the recruitment of a consultant for SRS development for pssinsight.org is under development.

ACTIVITY 3.3.2: PSS 101 COURSE

During this quarter, MTaPS reviewed and finalized the two remaining modules of the eLearning PSS 101 course. All modules were submitted to the USAID University team and the Global Health eLearning Center (GHeL). The USAID University team launched a pilot site with all the modules, and MTaPS completed beta testing of the course in early December. The GHeL team is formatting and testing the files for its platform. MTaPS developed a concept/plan for the delivery of two cycles of PSS 101 training for USAID staff using a facilitated blended format. MTaPS is also reviewing the functionality of the GHeL learning management system to ensure that a facilitated blended approach can be accommodated.

ACTIVITY 3.3.3: PSS LEARNING EXCHANGE ON THE JOINT LEARNING NETWORK (JLN) FOR UNIVERSAL HEALTH COVERAGE

In October, MTaPS held a preliminary meeting with network managers to discuss the concept note for the learning exchange, gather background information on findings from a survey of member countries regarding technical interests, and clarify the necessary steps for gaining steering group approval. MTaPS then met internally with subject matter experts, identifying management of conflicts of interest (COI) in national pharmaceutical systems as a tentative focus. In December, MTaPS finalized the concept note and shared it informally with network managers. A learning exchange is proposed to facilitate peer-to-peer learning on the importance of and strategies, guiding principles, and good practices for improving the management of the COI in national pharmaceutical systems. This will leverage resources developed under the MTaPS Asia Bureau portfolio and *Managing Conflicts of Interest: A How-To Guide for Public*

Pharmaceutical Sector Committees in Low- and Middle-Income Countries (recently drafted by WHO in collaboration with MTaPS). The learning exchange will facilitate peer-to-peer learning among both JLN and non-JLN country participants on improving COI management in national pharmaceutical systems.

ACTIVITY 5.4.1: TESTING BEHAVIORAL NUDGES FOR ANTIMICROBIAL STEWARDSHIP

MTaPS identified Uganda as a case for this activity aimed at investigating the effectiveness of behavioral "nudge" interventions to improve antibiotic prescribing patterns from a subset of healthcare providers. MTaPS held a series of meetings with Deloitte and the Uganda country team to plan the activity. During discussions, it was decided that incorporating the WHO-recommended AWaRe categories in the intervention/analysis would be a priority approach if feasible. For stronger buy-in and support from the local counterparts at the leadership and decision-making level, it was also decided to engage the AMS TWG early on. During the quarter, MTaPS also finalized the implementation plan and the SOW for Deloitte. The subcontracting process for Deloitte is underway. While the process continues, MTaPS and Deloitte are conferring about the list of 'nice to have' variables and an Excel template for data collection, both shared by Deloitte. The immediate next step is to review and provide MTaPS inputs on the variables and check feasibility of collecting facility data on these variables to help Deloitte draft an informed and detailed protocol for the study.

ACTIVITY 6: PROGRAM MANAGEMENT

This quarter, MTaPS participated in the American Society of Tropical Medicine and Hygiene Annual Meeting, held November 17-21, 2021, with three poster presentations:

- Antimicrobial consumption surveillance in a resource limited setting: Findings from 13 hospitals in Uganda
- Building capacity on infection prevention and control (IPC) in healthcare settings during the COVID-19 pandemic in Bangladesh
- COVID-19 IPC Outcome Assessment in USAID MTaPS-Supported Health Facilities

MTaPS had three oral presentations accepted for the American Public Health Association (APHA) Annual Meeting, but due to MTAPS' election for virtual participation (due to pandemic travel risks) the organizers switched two to poster presentations. However, one of the presenters was scheduled for an oral presentation despite indicating virtual attendance. The organizers asked them to withdraw at the last minute because APHA could not accommodate an oral presentation virtually. As a result, MTaPS ended up with only two presentations:

- Establishing an emergency supply chain system for continuous access to COVID-19 commodities in Bangladesh
- Experiences and lessons from using Global Health Security Agenda perspectives and approaches to implement AMR containment efforts in 11 countries

MTaPS also developed and submitted several panel and presentation abstracts to the Global Health Security Conference:

- Panel: GHSA-supported antimicrobial resistance (AMR) investments: results and lessons learned in strengthening IPC; enhancing inclusion; and enabling rapid COVID-19 response and future pandemic preparedness
    - Strengthening IPC programs for AMR containment, and outbreak preparedness and response
    - Improving IPC practices: Interventions in six Tanzanian hospitals
    - Addressing sex and gender inequities in IPC to reduce the global risk of AMR
- Individual abstract: Overlooked sex and gender aspects of emerging infectious disease outbreaks: Lessons learned from COVID-19 to move towards health equity in epidemic and pandemic response
- Individual abstract: A point prevalence survey of antibiotic use across thirteen hospitals in Uganda

MTaPS received notification that the three abstracts submitted to the Scientific Conference on Medical Products Regulation in Africa early in the quarter were not accepted.

MTaPS also met with PQM+ during this quarter to discuss how best to collaborate on global advocacy and coordination strategies for regulatory and PSS. MTaPS and PQM+ agreed to produce one webinar in the third quarter of this program year focused on the findings from the regulatory IMS standards activity.

Additionally, MTaPS finalized a new conference SOP for preparing and submitting abstracts and presentations/posters to conferences.

EXTENDED YEAR 3 ACTIVITIES

ACTIVITY 3: ROADMAP FOR HEALTH TECHNOLOGY ASSESSMENT INSTITUTIONALIZATION

MTaPS conducted the HTA workshop on October 20, with 13 participants from eight African countries. The workshop report was submitted to USAID in November, and the post-workshop report was posted on the MTaPS website in early December. The MTaPS team initiated preliminary discussions with Ethiopian HTA experts (academia and pharmacists that are HTA-doers) with the potential to provide targeted support using HTA Roadmap approaches. A first meeting with Dr. Daniel Erku, the Professional Society for Health Economics and Outcomes Research (ISPOR) Ethiopia chapter representative, took place on November 1 to discuss potential areas of collaboration between MTaPS and the Center for Research and Engagement in Assessment of Health Technology, a non-profit working with the National Health Insurance Agency, ISPOR, and other institutions in Ethiopia. A subsequent meeting was held with the COR team in early December to discuss Ethiopia as the country of choice and confirm the feasibility of this work with the MTaPS team before submission of a concurrence request. A second meeting between MTaPS and representatives from the ISPOR chapter in Ethiopia

took place in mid-December to set expectations about the potential collaboration and to refine the work plan and timeline to support the development of an evidence-based framework to support the HTA institutionalization effort in Ethiopia.

MTaPS will develop the business plan canvas tool for HTA advancement based on the lessons learned from testing the feasibility of implementing the roadmap and the research for the HTA Roadmap. MTaPS will begin developing the tool while working on activity 3b, populating information into the tool as it's collected from the deep dive.

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

MTaPS and Local Health System Sustainability completed the first draft of the pharmaceutical expenditure illustrative policy brief using the Burkina Faso pharmaceutical expenditure data. The policy brief draft is currently under editorial review and formatting. Once the review is completed, the draft will be shared with USAID for review.

For the pharmaceutical expenditure tracking in Benin, MTaPS completed the data collection, the data organization, and the data formatting in December 2021. MTaPS is currently finalizing the data organization and mapping the data. The team expects to complete the Benin pharmaceutical expenditure data mapping by January 20 and will then develop a policy brief.

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

MTaPS found limited publicly available data on the geographical distribution of retail drug outlets and the quality of services they provide. The COR requested that MTaPS consider culling existing evidence on the quality of services from available literature. MTaPS then developed a timeline for a systematic literature review and manuscript development. The methodology for the review has been finalized, including the protocol and screening tool, and the literature search is now underway. MTaPS has received feedback from its communications team on the concept note for a webinar and may revise it based on the findings of the review.

ACTIVITY 7: INVESTIGATING THE USE OF INFORMATION FROM PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS (PMIS) FOR EVIDENCE-BASED DECISION MAKING

In October, MTaPS revised and resubmitted the protocol for USAID approval. Once USAID approval was received, MTaPS submitted the protocol to the MSH scientific committee for review. Feedback was provided by the committee in December, and MTaPS revised the protocol for country ethics review submission. The team held a series of meetings with the MTaPS Rwanda and Mozambique teams to map out support and in-country coordination as well as to discuss consultant recruitment, the ethics approval process, and MOH and food and drug authority engagement. To date, Mission concurrence has been received for Rwanda and is pending for Mozambique. The team aims to submit protocols in late January/early February for the next ethics committee meeting. MTaPS has also started gathering background information on country context to further clarify document needs and target stakeholders.

EXTENDED YEAR 2 ACTIVITIES

ACTIVITY 8: SUPPORT AFRICAN REGIONAL HARMONIZATION EFFORTS FOR PHARMACOVIGILANCE

MTaPS, in collaboration with WAHO, drafted the SOW for the community of practice (CoP) to enable countries to share information and help strengthen weak or nonfunctioning PV systems. The SOW was subsequently shared with WAHO for finalization and endorsement. The WAHO DG also approved the data sharing agreement (DSA), which was shared with countries for their review and possible adoption. MTaPS convened a meeting of PV and IMS representatives of ECOWAS member states in October. During the meeting, the content of the DSA was highlighted. Additionally, participants reviewed the data collection template that will be used to collect information and provide a high-level view of the PV portal within the Essential Medicines and Vaccines portal of WAHO. Participants comprised of ECOWAS PV representatives agreed that the TOR of the PV expert working group (EWG) should be expanded to include the CoP's tasks rather than develop a whole new SOW.

To date, four countries have signed and shared their DSA with WAHO. MTaPS is continuing to follow up to secure signed DSAs from remaining countries by facilitating the DSA process between WAHO and the member states and allaying concerns regarding the sharing of country data by assuring countries that data collected is aggregated and therefore will not compromise patient confidentiality.

In addition, MTaPS, with support from the ECOWAS MIS EWG chairperson, converted the data elements into a Microsoft Form that will be used by the countries to submit their quarterly data to the platform. Dummy data were developed and shared with the MIS team to create graphs for visualization. The forms have been embedded in the existing country pages to facilitate data collection, aggregation, and report generation for data use, to increase visibility, and to inform policy and regulatory decisions.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Activity 2.2.1. Methodology for assessing the roles of national PSUs and their capacity to fulfill their mandate • Recruit consultant • Start engaging global and national stakeholders • Conduct desk review • Initiate ethical review process	Jan-Mar 2022
Activity 2.4.1.1. Dissemination and roll-out of common standards • Draft advocacy brief • Convene meetings with selected NMRAs to engage them in the consultative process • Collate and synthesize feedback from experts on the standards to be included as the minimum common set • Meet with WHO to agree on the mode of collaboration aimed at developing international guidance on digitalization of regulatory IMS	Jan-Mar 2022
Activity 2.4.1.2 Optimize Pharmadex and PViMS to reflect common standards, add vaccines and medical devices, and incorporate emergency use authorizations and monitoring/oversight Complete the following: • Technical brief on common standards adopted during the period e.g. ATC • Illustrated workflow for vaccines • Illustrated workflow for medical devices • Illustrated workflow for emergency use authorization • Technical brief on monitoring/oversight progress	Jan-Mar 2022
Activity 3.3.1. Measuring PSS, including access to medicine • Finalize SOW and initiate recruitment of SRS consultant • Complete desk review portion of data collection in all four countries	Jan-Mar 2022
Activity 3.3.2. PSS 101 Course • Submit concept for PSS 101 USAID training to COR for feedback • Pending approval, launch course	Jan-Mar 2022
Activity 3.3.3. PSS Learning Exchange on the JLN for UHC • Formally engage with WHO to determine their interest in participating in the learning exchange • Engage external COI management experts to serve as facilitators • Work with network managers to develop call for expression of interest • Develop agenda for the exchange	Jan-Mar 2022
Activity 5.4.1. Testing behavioral nudges for antimicrobial stewardship • Complete preliminary data analysis • Finalize study protocol • Initiate ethical review process	Jan-Mar 2022

Activity 6. Program Management • Prepare abstracts for Health Systems Global 2022	Jan-Mar 2022
Year 3 Activity 3: Roadmap for HTA institutionalization • Submit concurrence to Mission in Ethiopia to conduct a pilot test of the HTA roadmap • If approved by Mission, initiate activities to provide support to in-country partners in the landscape assessment to develop an HTA implementation plan	Jan-Mar 2022
Year 3 Activity 4: Improve pharmaceutical expenditure tracking and use of expenditure data for decision making • Submit edited pharmaceutical expenditure illustrative policy brief to COR • Complete pharmaceutical expenditure data mapping with the data collected from Benin	Jan-Mar 2022
Year 3 Activity 6: Advancing equitable access to quality pharmacy services in the private sector through retail drug sellers • Work with the communications team to host webinar in March • Complete systematic literature review • Redraft manuscript for peer-review submission	Jan-Mar 2022
Year 3 Activity 7: Investigating the use of information from pharmaceutical management information systems (PMIS) for evidence-based decision making • Seek ethics approval in Rwanda and Mozambique • Engage consultants for data collection	Jan-Mar 2022
Year 2 Activity 8: Support African regional harmonization efforts for PV • Convene meeting of a smaller group of the PV EWG to deliberate and review the TOR of the committee to capture the tasks of the CoP and agree on the layout/visuals for the PV portal • Create country pages for the four countries that have signed onto the platform using the finalized format • Share form with countries that have signed DSA to commence data sharing • Use actual data from the countries that have signed DSA to develop charts to help the PV EWG have a vision of the platform outlook • Agree upon and finalize the layout/visuals for the platform output with the EWG • Launch the PV web-based portal using the four countries that have already signed and provided data. More country pages will be added as other countries sign their DSA.	Jan-Mar 2022

CROSS-CUTTING ACTIVITIES

GENDER ACTIVITIES - QUARTER PROGRESS FOR FY22Q1

Key activities for this quarter focused on:

- Writing, editing, and publishing two Gender Gist blogs
- Organizing, writing, editing, and submitting a panel discussion and abstract submission for the Global Health Security Conference 2022 in Singapore
- Drafting the PSS gender analysis learning product and associated interview guides
- Meeting with MTaPS Philippines to plan Y4 gender activities

The Gender Gist blog series includes useful and practical information on sex and gender considerations for different topics in PSS to ensure that MTaPS activities are sex- and gender-responsive to promote equitable access to medicine. Two blogs were published this quarter. "Creating Sex/Gender-Responsive Health Supply Chains: COVID-19 Reminds Us Again" discussed how sex- and gender-responsive supply chain changes can limit morbidity and mortality in a variety of ways, while "Build It Right or They Won't Come: Being Gender Responsive for COVID-19 Mass Vaccination" addressed gender considerations at mass vaccination sites. The Gender Gist blog series is one of the most read pages on the MTaPS website.

During this quarter, the gender advisor organized, wrote, edited, and submitted a panel discussion submission to the Global Health Security Conference planned for Singapore in June 2022. If accepted for presentation, the panel will discuss MTaPS' successful collaboration with national and facility counterparts to implement IPC interventions, including performance assessments, health worker training, and mentorship, and how GHSA investments in IPC and MSC were leveraged to enable rapid national and local efforts to respond to COVID-19 and protect health care workers and patients. The session will also highlight lessons learned from these efforts, including the rapid adaptation of AMR capacity to support outbreak response and enhancing inclusivity. The panel (if accepted) plans to present a successful country-level IPC intervention from Tanzania and discuss the importance of gender- and sex-responsive approaches for improving IPC capacity to decrease AMR. The gender advisor submitted another abstract for this meeting that takes a broader look at the sex- and gender-specific aspects of epidemics and pandemics, using lessons learned from COVID-19 to reduce inequities during emerging infectious disease pandemics and epidemics. A decision on these submissions is expected by February 2022. The panel and abstracts are part of MTaPS' goal to publish and present scholarly work demonstrating how its programs are sex and gender responsive to ensure equity in access to medicines.

A typical gender analysis ignores biological differences that impact PSS; therefore, an adapted gender analysis for PSS needs to understand the sex and gender dynamics within a community that impact PSS. By creating an adapted gender analysis that is specific to PSS, MTaPS and other PSS programs can easily identify where programs benefit sex and genders equitably and are able to identify any sex and/or gender inequities that might cause negative outcomes and how to mitigate them. During this quarter, the gender advisor started developing this PSS gender analysis and its associated interview guides as an

MTaPS knowledge learning product. The PSS gender analysis is critical to MTaPS' goal of ensuring sustainable access to and effective use of affordable medicines that is equitable for all sexes and genders.

Also during this quarter, MTaPS Philippines and the MTaPS gender advisor met to discuss the Y4 work plan gender activities. After dissemination of the exploratory research on the role of gender in PSCM and PV of FP and TB programs, the DOH requested more information on sex/gender in PSS and in sex, gender, and supply chain management through the development of an accredited eLearning modules to be launched in June 2022 and targeted for service providers and policy makers. Another planned activity involves the development of a webinar to disseminate the work force development review, which includes a gender section and another webinar for review of the draft eLearning modules.

Finally, the MTaPS gender advisor commented on the after-action review for the monitoring, evaluation, and learning (MEL) team; worked on a new task order for gender activities across MTaPS; reviewed and commented on a draft of the MNCH medical devices policy; and analyzed, reviewed, and wrote the gender section of a manuscript submitted to the journal Antibiotics entitled "Point prevalence survey of antibiotic use across 13 hospitals in Uganda". These outputs support the broader cross-cutting goal of ensuring that MTaPS activities are sex- and gender-responsive to promote equitable access to medicines.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Philippines – eLearning sex and gender module	Jun 2022
Gender Gist blog – sex-disaggregated data	Mar 2022
Continue to develop PSS gender analysis guide and instruments	Jun 2022
Follow up on proposed panel discussion and abstract for Global Health Security Conference (June 2022)	Feb 2022
Attend staff, quarterly, and technical meetings	Jan-Mar 2022

PROGRESS TOWARD OBJECTIVES

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED - QUARTER PROGRESS FOR FY22Q1

Promoting transparency and accountability is a prerequisite for improving access to essential medicines and strengthening health systems to achieve UHC.[4] Poor governance in pharmaceutical systems can reduce access to pharmaceutical products, inflate medicine prices, and waste scarce health system resources. [5] Governance plays a critical role in minimizing opportunities for corruption and mitigating other system inefficiencies. It also shapes the ability of the health system to respond to challenges. This section presents progress in selected MTaPS governance activities for Q1 of FY22.

TRANSPARENCY AND ACCOUNTABILITY OF COUNTRY PHARMACEUTICAL SYSTEMS IMPROVED

Nepal: MTaPS continued to support drug law revision this quarter through the organization of several consultative meetings with the Ministry of Health and Population (MOHP); Ministry of Law, Justice, and Parliamentary Affairs representation; DDA; and with support from MTaPS' national and international legal experts. The draft law is now ready for MOHP to seek approval from the Council of Ministers. If approved, the new drug law will serve as the foundation for overall improvement in pharmaceutical management. The passing of this drug regulation is fundamental to increasing the DDA's regulatory maturity level since it introduces radically new roles and responsibilities of the DDA.

Nepal: MTaPS supported the drafting of the Nepal GPP and GDP guidelines. The electronic GPP inspection tool has been revised with the involvement of DDA inspectors and stakeholders. The GDP inspection tool is now ready for piloting. The GPP inspection tool has been piloted and a guideline for the tool has been drafted. A multi-pronged strategy for GPP implementation has been drafted that strengthens the DDA, supports the limited inspection resources, automates reporting, capacitates DDA inspectors and pharmacy owners, and builds community awareness of GPP best practices. Introducing the WHO GPP and GDP inspection will radically improve service provision, and patient care will benefit significantly from quality assurance of products moving into the market. The GPP tool has been updated to include the mandatory indicators of the revised codes on sale and distribution of drugs.

EVIDENCE-BASED MEDICINES POLICIES, LAWS, REGULATIONS, GUIDELINES, NORMS, AND STANDARDS IMPROVED AND ENFORCED

Kenya: MTaPS, in collaboration with the MOH Division of Health Products and Technologies, supported the development and validation of the first Kenya National Medicines Formulary document, which incorporated the AWaRe categorization of antibiotics.

[4] Wirtz VJ, Hogerzeil HV, et al. Essential medicines for universal health coverage. The Lancet. 2017. 389(10067), 403–476.
[5] WHO. 2013. Good Governance in the Pharmaceutical Sector. Geneva: World Health Organization. Available at: http://www.who.int/medicines/areas/governance/EMP_brochure.pdf?ua=1

Cameroon: Participation in a workshop to develop a national One Health strategic plan—in 2012, Cameroon developed a national One Health strategic policy document showing the commitment of the human, animal, and environmental sectors to jointly manage public health threats while following the One Health approach. To operationalize this document, the National Program for the Prevention and Control of Emerging and Re-emerging Zoonosis (NPPFERZ), which is the focal point for the One Health platform, organized a three-day workshop from October 20-22, 2021, bringing together all relevant stakeholders from the different sectors as well as technical and financial partners to draft a three-year (2022–2025) national One Health strategic plan for Cameroon. This plan will include specific activities, a budget, and a M&E framework. During this meeting, participants carried out a SWOT analysis of all 22 action areas of the One Health platform. For this, four groups were created, and each group was assigned to assess all 22 action areas. MTaPS actively contributed to assessing four action packages: AMR; national laboratory system; emergency preparedness; and coordination, communication, and promotion of the One Health approach. Following the SWOT analysis, participants identified priority activities and consolidated a draft plan. NPPFERZ will organize a second workshop in January to finalize the identification of priority activities and develop a budget and a M&E framework.

Cameroon: In September and October 2021, MTaPS supported the DPS to develop the first draft of Cameroon's national IPC action plan. From November 23-26, 2021, MTaPS supported the DPS to organize a 4-day workshop for 26 participants (42.3% women) to review the draft national IPC action plan. Participants were from different technical departments of the MOH, other relevant ministries (the Ministry of Fisheries and Animal Husbandry and the Ministry of Environment and Nature Protection), and implementing partners (UNICEF, US Center for Disease Control [CDC] Atlanta, IFRC). This was followed by a review of the budget, and then a review of the M&E framework. The DPS subsequently shared the updated national IPC action plan with participants in advance of a validation workshop that MTaPS plans to support in January 2022.

Jordan: MTaPS continued advocacy and follow-up with the National Vaccines Procurement Modernization Committee and the relevant stakeholders including MOH, the Legislation and Opinion Bureau (LOB), and the Jordan Food and Drug Administration (JFDA) to ensure the fulfillment of the conditions precedent. Efforts paid off when a letter dated September 29, 2021, was issued from the LOB to the MOH confirming the adoption of the suggested amendments on the procurement by-law draft. According to the letter, the amendments—which are to be submitted to the Government of Jordan's Prime Ministry for approval—include the addition of an article that permits price negotiation after the initial award in the procurement process (Article 41/F in the procurement by-law draft) and the extension of the framework agreement from two to five years (Article 57 in the procurement by-law draft).

Nigeria: The Enugu State IPC strategic plan is nearly complete. MTaPS has shared this document with Nigeria CDC and Enugu State MOH and is awaiting their feedback in populating the non-technical components of the plan.

Uganda: During Q1, MTaPS, working with the Ministry of Agriculture, Animal Industry, and Fisheries, held an event to officially hand over 2,000 copies of the Essential Veterinary Medicines List; guidelines for infection prevention and appropriate antimicrobial use in the animal sector; and information, education, and communication (IEC) materials aimed at creating awareness of AMR, improving antibiotic

use and infection prevention in the agricultural sector, and increasing AMR awareness in the animal sector.

Nepal: SOP for review of clinical trial data as part of the clinical trial application has been drafted along with related forms and formats.

STAKEHOLDER ENGAGEMENT AND EMPOWERMENT, INCLUDING CIVIL SOCIETY AND CONSUMERS INCREASED

MNCH social accountability paper: During this quarter, the "Engaging Civil Society in Social Accountability to Improve Access to and Appropriate Use of Quality MNCH-Related Medical Products: A Discussion Paper" was finalized and shared. The discussion paper, developed by MTaPS with MNCH funding, reviews experiences and lessons learned from social accountability research and interventions to identify policy and practice implications for initiatives seeking to engage civil society in improving access to and appropriate use of quality MNCH medical products. The role of different actors in the success or failure of social accountability interventions is also explored. The paper provides a basis from which to further explore leveraging civil society in PSS efforts.

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT AND SERVICES INCREASED, INCLUDING REGULATION OF MEDICAL PRODUCTS - QUARTER PROGRESS FOR FY22Q1

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 year four, MTaPS is taking a sharper focus on capacity building, ensuring that the range of activities the program is involved in produces a lasting legacy; antimicrobial resistance (AMR) working groups are self-sustaining; e-learning materials are integrated into the learning system of ministries for ongoing use; and digital solutions are seamlessly embedded into the workflows of pharmaceutical systems.

This section presents progress in selected MTaPS institutional and human resource (HR) capacity building activities for Q1 of FY22.

INSTITUTIONALIZATION OF PROVEN, INNOVATIVE APPROACHES TO BUILDING HUMAN RESOURCE CAPACITY

Within pharmaceutical systems, sustainable and supported HR require a focus beyond competency development (training) to consider structure, motivation and management, monitoring and supervision, and the working environment. The following activities completed in this quarter demonstrate a range of interventions as we consider a variety of HR development elements.

Nepal: Assist DDA in Organizational Restructuring

MTaPS finalized the year-three deliverable of preparing job descriptions for seven key positions in the reorganized structure of DDA in Nepal. The job descriptions have been developed in collaboration with DDA and are shared with USAID. Additional job descriptions are being drafted following the agreed format to cover all position in the present DDA.

Uganda: Strengthen the Centers of Excellence (COEs) for AMS

MTaPS is continuing to support six hospitals to develop as COEs for AMS through implementation of CQI projects for AMS. The projects follow a plan-do-study-act cycle overseen by the AMS team of the hospital MTC and the MTaPS technical team through regular mentorship activities. During Q1 of FY22, MTaPS conducted 14 mentorship activities including those amalgamated during WAAW (November 18–24, 2021). These included four continuous medical education trainings reaching 139 HCWs (73% female, 27% male), three prescriber trainings reaching 60 HCWs (48% female, 52% male), 2two grand rounds reaching 43 HCWs and 138 university students (41% female, 59% male), and a social media campaign.

Philippines: PSCM Workforce Development Plan

MTaPS worked with the DOH to revisit the health PSCM workforce development plan in support of the recent organizational and policy changes within the DOH, including the restructuring of the Disease Prevention and Control Bureau (DPCB) in the context of the implementation of the UHC law,

development of a devolution transition plan, and development of a roadmap for PSCM reform calls. The PSCM workforce development plan is currently being aligned with the recent changes in the public health and PSM context to be incorporated into the health HR master plan of the Philippines. MTaPS is coordinating with different DOH offices in the revision of PSCM workforce development plans and job descriptions to support the hiring and capacity building of the health workforce at different levels to effectively and efficiently carry out PSCM functions.

Mali: Monitoring and Supervision

MTaPS supported the SDHPS-DGSHP to organize and conduct Ebola supervision visits to the seven health facilities (Kenieba, Kita, Sagabari, Kati, Kangaba, Sélingue, and Yanfolila) in target health districts using the Ebola scorecard tool. The results of these supervision visits show that:

- Five out of seven reference health centers (CSRéf) have improved their IPC practices, with scores higher than 75%.
- All seven supervised CSRéf have started the implementation of their action plans, with completion rates ranging from 12% to 56%.

Rwanda: Streamline registration of essential medicines and medical devices, including those used in HIV/AIDS); MNCH); and FP programs

In quarter 1, MTaPS continued to provide support in the operationalization of the developed e-learning course in medicines evaluation and registration in close consultation with the RFDA. The course has been uploaded onto the online Moodle platform where trainees will be able to access the material. In addition to the course being uploaded, there is an ongoing MTaPS-facilitated discussion between RFDA and MOH on the implementation of the course and enabling program sustainability. The e-learning course will enable RFDA assessors to acquire knowledge and key areas to look out for during the evaluation process. The online course will also be accessible to current assessors to refresh their knowledge and for new assessors to learn the key areas of focus while conducting assessments.

Cross Bureau Activity: PSS 101 Course

MTaPS reviewed and finalized the two remaining modules of the e-learning PSS 101 course. All modules were submitted to the USAID University team and the GHeL. The USAID University team launched a pilot site with all of the modules, and MTaPS completed beta testing of the course in early December. With COVID-19 travel restrictions expected to continue, MTaPS developed a concept/plan for the delivery of two cycles of PSS 101 training for USAID staff using a facilitated blended format. MTaPS is also reviewing the functionality of the GHeL learning management system to ensure that a facilitated blended approach can be accommodated.

STRONGER CAPACITY OF GOVERNMENT TO MANAGE PHARMACEUTICAL SYSTEMS

Senegal Activity: Support the revitalization of ICCs in selected district and regional hospitals

From October 18-22, MTaPS supported the ICCs in six MTaPS-supported hospitals (three from FY2019/2020 and five from FY2021) to conduct a review of the implementation of their respective IPC improvement action plans. These plans were originally developed from baseline assessments. The ICCs conducted the reviews using the WHO IPCAF tool. The internal reviews show that the hospitals have increased their IPC capacity levels.

Nigeria: Facility IPC action plan development

MTaPS provided technical support to the facility IPC team in developing their action plans to address specific IPC gaps and prioritized needs for the IPC program in each facility. The facility IPC teams in all three supported facilities have commenced the implementation of their IPC action plans.

Tanzania: Continue to support active implementation of AMS practices in 10 supported health facilities

MTaPS cooperated with the PSU of the MOHCDGEC and followed up with MTCs on AMS implementation, with a focus on progress towards the development of hospital formularies. The MTCs of seven regional referral hospitals (Amana, Temeke, Morogoro, Mbeya, Sekou Toure, Bukoba, and Maweni) reported the start of the development process of their hospital formulary—mostly identification of a hospital formulary sub-committee that will lead the development and engagement with health care providers for collecting relevant medicines lists.

Tanzania: Strengthen existing passive medicine safety surveillance system for pediatric medicines used in national HIV program

The GHeL conducted training for members of the vigilance technical committee (VTC) for medicines, vaccines, medical devices, and diagnostics on October 25–29, 2021. The training built capacity for the VTC to execute their duties in line with the vigilance framework of Tanzania and the current revised TOR of the VTC that were developed with MTaPS support. The workshop also included inauguration of the committee following official appointment by Tanzania Medicines and Medical Devices Authority and the first meeting of the VTC since the addition of new members who are pediatric experts (three pediatricians and one co-opted member with pediatric expertise).

IMPROVED CAPACITY OF PRIVATE-SECTOR ORGANIZATIONS TO SUPPORT PHARMACEUTICAL OPERATIONS

Senegal: Support the capacity of health desk journalists to understand AMR

Under the aegis of the Permanant Secretary to the HCNSSM/OH, MTaPS chaired the second day of the training session of 12 health desk journalists on basic knowledge of One Health, AMR, and zoonotic diseases. Following the training, MTaPS facilitated the establishment of the OHJN, and the newly trained health desk journalists have started producing radio and TV reports on AMR. The trained health desk journalists contributed to the media coverage of the official WAAW ceremony organized under the chairmanship of the High Council of Local Authorities, the minister of the general secretariat of the government, and the chiefs of staff of ministries of the human, animal, and agricultural health sectors. This was a first-time joint effort among AMR multisectoral partners to organize such an activity.

Furthermore, trained health desk journalists produced radio and TV programs in local languages and in French to raise awareness among their audiences about AMR.

STRONGER MEDICINES REGULATORY CAPACITY, INCLUDING THROUGH REGIONAL REGULATORY HARMONIZATION

Supporting implementation of regulatory activities and GBT assessment of the regulatory functions

MTaPS worked in collaboration with the Bangladesh DGDA's) teams assigned to the nine regulatory functional areas to review and address the gaps that were identified during the WHO assessment held in July 2021. MTaPS, in collaboration with PQM+ and WHO, assisted DGDA and worked with the selected teams to provide support in the five functional areas: registration and marketing authorization, PV, regulatory inspection, licensing establishment, and QMS of regulatory system. MTaPS periodically met with DGDA-assigned teams and provided guidance to address and implement an institutional development plan with a goal of increasing DGDA's score to 100% in the five regulatory functions according to the WHO GBT. The five teams worked on the development/revision of guidance documents and regulatory instruments such as legal provisions, regulations, guidelines, procedures, an organogram, job descriptions, and a training/inspection plan. Achieving a score of 100% in the five regulatory functions will enable DGDA to attain maturity level 3 according to the WHO GBT.

In Nepal, MTaPS led a discussion and concluded the DDA maturity level action plan (MALAP) with the DG of DDA; WHO; and senior DDA, national medicines list, and PQM+ managers. The MALAP spans two years, with the first (July 2021–July 2022) aiming for maturity level 2 and the second (August 2022–July 2023) aiming for maturity level 3. The MALAP was shared with all participating organizations for monitoring and follow-up. With the DDA and WHO, MTaPS presented the TOR for the proposed TWG on regulatory strengthening. MALAP is periodically updated, with the most recent update being on December 17. These updates will help the DDA meet its goal of enhancing regulatory maturity from the current status to maturity level 3, where the national regulatory authority is considered functional and stable to deliver its services.

Improving the legal framework for the pharmaceutical regulatory system and regulatory functions

It is critical to have an appropriate and up-to-date legal and regulatory framework in place in order to effectively regulate the pharmaceutical market in countries. MTaPS' support in this area is further elaborated under Objective 1.2. Refer to Objective 1, "Evidence-Based Medicines Policies, Laws, Regulations, Guidelines, Norms, and Standards Improved and Enforced," for more details.

Improving the Regulatory System by establishing a QMS

The process of establishing QMS continued to be supported in three countries despite some challenges. In **Nepal**, MTaPS worked with the DDA to create documentation in accordance with the QMS standard requirements. MTaPS assisted in the development and review of SOPs for clinical trial evaluation and regulatory inspections. The quality manual was revised by MTaPS in response to feedback from the QMS TWG. According to the proposal of the QMS TWG, an internal quality audit training

plan has been included in the modified implementation plan. DDA staff received training on the evaluation of vaccination dossier reviews, allowing them to execute clinical and non-clinical trial review of SOPs. The development and execution of the QMS will guarantee that DDA has a consistent methodology in place to carry out its key regulatory functions in a more effective manner. In **Rwanda** and **Mozambique**, MTaPS worked with the national regulatory authorities to prepare for the external audit that will determine the readiness for International Organization for Standardization 9001:2015 certification. Delays with the DNF Mozambique to conduct the quality audit contributed to changing the plan to perform the exercise in the first quarter of FY22. QMS must be implemented as a critical component of fulfilling the GBT requirement for regulatory systems and, once implemented, allow for the efficient and consistent delivery of regulatory services, which contributes to customer satisfaction and the delivery of high-quality medical products.

Product Registration System Improvements

Improving regulatory assessors' knowledge and skills in national regulatory authorities is crucial to ensuring quality assessments and approval of medical products that satisfy quality, safety, and efficacy standards. This quarter, MTaPS assisted and facilitated the conduct of capacity building sessions for the registration of medicines and medical devices in four countries.

In the **Democratic Republic of the Congo (DRC),** MTaPS supported the DPM to conduct a 4four-day training program for 20 new members of the registration committee on processing marketing authorization requests. The course covered topics related to evaluation of injectable products (particularly finished pharmaceutical preparations), technical specifications for medicines, validation of the sterilization process for sterile products, evaluation of stability studies, and good manufacturing practices for injectable products. Participants were informed about critical elements to examine in the product dossiers such as description on the limitations of contaminants, excipients, tests, summary of product characteristics, and dissolution.

In **Mozambique**, the DNF has recently been turned into a semi-autonomous regulatory entity known as the national medicines authority ANARME, PI, which was founded under the medicine law 12/2017 to monitor the quality of medicines. ANARME, PI is also responsible for authorizing the use of medicines and vaccines in Mozambique, among other things. For personnel from the DNF's product registration department, MTaPS organized a capacity development training course to do BE analyses of medicines dossiers and the usage of reliance mechanisms. To impart knowledge and competencies, an effective training program with a specific agenda was established. BE studies must be evaluated prior to the registration of oral generic medicines, many of which are for MNCH conditions, to ensure that they are comparable to the innovator product in terms of therapeutic outcomes. The training style was scenario-centered and participatory, with an emphasis on capacity building for assessing BE studies as part of the review of MNCH generic oral medicine dossiers. All participants agreed that the training was beneficial to their jobs based on the completed evaluation forms. Furthermore, training of ANARME, PI personnel in specialized areas helped optimize the registration process and improve effectiveness of the registration system, thereby increasing access to safe and quality-assured medicines in the country.

In **Rwanda,** MTaPS organized a medical device evaluation capacity building session for 40 RFDA officials. Currently, medical device regulation in Rwanda is limited, and regulators must develop skills and

knowledge in performing assessments of medical devices and in vitro diagnostics (IVDs) in order to ensure that products released to the market are of high quality and perform effectively. The training improved RFDA staff's ability to conduct technical evaluations for medical device dossiers, allowing the regulator to expand the number of registered medical devices and IVDs on the Rwanda market and simplify their regulation. More work will be supported to build a list of medical devices classified by risk, as well as SOPs for medical device listing/registration. MTaPS' medical devices technical advisor also attended the five-day training on the assessment of medical devices and IVDs organized by MTaPS Rwanda.

MTaPS prepared a situational analysis of medical device regulation and registration in **Nepal**, as well as an implementation strategy for increasing medical device regulation and registration. The stakeholder discussion of both the situational analysis report and the registration plan will be facilitated by MTaPS. Standard requirements for selected products are being developed. MTaPS will finalize the registration guidelines and standard specifications in the coming quarter. After these documents have been approved, registration of medical devices and health technology products can commence.

MTaPS assisted the FDA registration of two essential FP products in **the Philippines**: Levonorgestrel Contraceptive Implant (Levoplant) (a WHO pre-qualified product) and Sayana Press. The application for a certificate of product registration for Levoplant is still being reviewed by the authority, but Sayana Press was registered in January 2021. Representatives from the FP program stated that they are currently awaiting the expert panel's decision on whether to add these two drugs to the program's medicines list. Following FDA approval, the FP program will move through with the application for HTA for these products, which is required before they may be included in the Philippine National Formulary. MTaPS will guide the FP program through the process of complying with the HTA regulations, as requested by DOH. Because the country currently has only one FP implant registered, registering Levoplant as an additional implant product will expand the availability of this FP approach and lower the likelihood of stock out. Currently, around 40% of facilities frequently encounter implant stock outs due to a lack of availability.

In **Jordan**, MTaPS facilitated the process of accelerating the registration of WHO-prequalified vaccines; the official National Gazette published on October 17, 2021, outlined JFDA's modified registration principles, which included the acceptance of and priority for registration of WHO-prequalified vaccines. A comprehensive report on "Legal Mechanisms Available to Accelerate Vaccine Registration" is still being reviewed and finalized and will be delivered to USAID in Q2.

In **Tanzania,** MTaPS provided technical assistance to map out the process of antiretroviral (ARV) medicine registration and importation, as well as identify critical bottlenecks and barriers. MTaPS performed key information interviews with 12 selected respondents, including local technical representatives, marketing authorization holders or importers, and public distributors of program ARVs. Additional information was gathered at the health facility level through 64 out of 100 targeted interviews. The next step is to conduct a stakeholders' validation workshop and discuss the findings and considerations for action to address the challenges/constraints identified in order to finalize the mapping report with recommendations for improving the registration and importation process for ARVs for the public sector. Addressing the identified bottlenecks and barriers will improve access to essential treatments for HIV/AIDS.

Improving Regulatory Inspection, Enforcement, and Licensing of Establishments

Appropriate regulatory framework with adequate tools for implementation and enforcement are necessary to equip national regulatory authorities and enable effective control of establishments that manufacture, distribute, and sell medical products.

In the **DRC**, MTaPS assisted the Provincial Health Inspectorate (IPS) pharmacist inspectors in conducting field visits to pharmaceutical wholesalers (including NGOs such as Médecins Sans Frontières, Save the Children, and MEDAIR) in Ituri to ensure that the products they import and sell are registered and authorized in the DRC. Similarly, 13 companies were visited in Nord Kivu. The inspections focused on detecting unregistered medical products imported by local enterprises, as well as identifying products with marketing authorization that are set to expire in the next six months and notifying wholesalers to renew their registration. The inspections revealed that most of the products held a marketing authorization. The customs office continues to use the marketing authorization directory for reference to check whether medical products are registered before carrying out any product analysis at the country's points of entry.

In Ituri, MTaPS also supported the IPS to organize a feedback meeting to raise awareness about registration of medicines by the authority. Participants included NGOs working in the health products supply chain area and members of the medicines TWG and customs officers (DGDA and Office Congolais de Contrôle [OCC]). The meeting was also an opportunity to raise awareness among wholesalers and implementing partners on the product registration process so that they select only registered and authorized products. MTaPS plans to support the DPM to disseminate the most recent directory of registered medicines.

In **Nepal**, MTaPS assisted in the creation of inspection tools for checking pharmacy owners' compliance with GPP. The GPP tool was created in accordance with WHO international standards and plans are in the works to computerize the procedure to enable more effective inspections and reporting. The GPP tool, as well as the amended codes of sale and distribution, were considered at a stakeholder meeting in December 2021. The meeting was attended by pharmacy professionals' organizations, pharmacy business professional organizations, consumer associations, and other pharmacy stakeholders. For implementation, a draft GPP implementation plan has been produced. The use of technological tools will improve the quality of DDA inspections and aid in the administration of inspection data. Similarly, MTaPS collaborated with DDA to develop GDP guidelines that were consistent with WHO good storage and distribution guidelines. The draft GDP guidelines and tool were amended in accordance with the draft codes on drug sales and distribution. A GDP implementation strategy has also been established, which includes the piloting of the GDP tool as well as the identification of required, critical, major, and minor indicators. The designed inspection tool was piloted, and the GDP inspection tool was upgraded to reflect the Nepalese context and to better understand the present state of wholesalers, distributors, and importers' activities. The electronic tool will improve the quality and consistency of DDA inspections while also assisting with inspection data management.

Improve PV Systems in Countries and Regions

Please refer to Objective 5.3 for details.

Strengthen use of electronic information technology solutions for efficient and transparent medicine regulatory processes

Please refer to Objective 3 for details.

Advancing Regional Regulatory Harmonization Efforts

MTaPS engaged with key networks and entities to enhance cooperation among national regulatory bodies in defined regions and continents in order to promote convergence and harmonization of medicines regulation. Working as a strategic partner of the AUDA-NEPAD**,** MTaPS facilitated the harmonization of PV systems across ECOWAS through partnership with WAHO. MTaPS collaborated with WAHO to have the 15 ECOWAS member nations sign a DSA that will allow data and information on PV GBT indicators and patient safety to be shared on the newly formed PV web portal. Sharing PV information on the newly formed portal will allow for information-sharing across member states and will promote improvements in PV systems, particularly among the weaker ones.

Furthermore, MTaPS participated in the fifth biennial Scientific Conference on Medical Product Regulation in Africa (SCoMRA V), which was organized by the Republic of Rwanda and took place virtually from November 22-23, 2021. The conference's theme was "Regulatory systems in Africa—lessons from the COVID-19 experience and solutions for improved recovery after the pandemic." SCoMRA V was organized in collaboration with the RFDA and African Medicines Regulatory Harmonisation (AMRH) partners by AUDA-NEPAD, WHO, and the Rwanda MOH. MTaPS submitted three abstracts that were published in the book of abstracts contributing to dissemination of information about MTaPS work and support in countries to strengthen regulatory systems.

The overall goal of SCoMRA is to stimulate discussion on supporting countries to accelerate patients' access to safe, efficacious, and quality medical products through strengthened regulatory systems and collaborations among national regulatory authorities, researchers, academia, procurement agencies, industry, and patient organizations.

In November 2021, MTaPS and PQM+ presented priority areas for support to the Association of Southeast Asian Nations (ASEAN) Pharmaceutical Products Working Group (PPWG) in accordance with ASEAN priorities. The activities planned are intended to assist in bridging gaps and improving convergence of technical standards for medicines registration in the following areas: marketing authorization, post marketing surveillance, quality management, access and lot release, regulatory IMS, and PV. The mode of support was agreed upon, and steps will be taken to begin implementing the anticipated assistance in the next quarter.

OBJECTIVE 3: AVAILABILITY AND USE OF PHARMACEUTICAL INFORMATION FOR DECISION MAKING INCREASED AND GLOBAL LEARNING AGENDA ADVANCED - QUARTER PROGRESS FOR FY22Q1

INTEROPERABILITY OF PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS THAT LINK PATIENTS AND PRODUCTS

MTaPS **Bangladesh** facilitated a demo on the DGFP eLMIS to assess the medicine stock situation with a focus on the lower consumption of oral pill third generation and injectables, possible expiration of misoprostol, and readjustment of stock among service delivery points. In addition, MTaPS **Bangladesh** organized a meeting with USAID to discuss the systems and tools developed by MTaPS, including e-TB Manager; the eAMS; the DGHS eLMIS for MNCH commodities; the COVID-19 eLMIS; the DGHS eLMIS for TB; the DGFP eLMIS; and the Supply Chain Management Portal, particularly the capabilities/functionalities of the systems and tools that required additional clarification. On November 10, 2021, MTaPS met with the IT vendor to discuss the upcoming eLMIS user acceptance testing (UAT) and with stakeholders for orientation on the application. MTaPS will roll out the eLMIS for TB commodities as planned in program year 4. MTaPS **Bangladesh** also conducted a workshop for National Tuberculosis Control Program (NTP) stakeholders, NTP officials, and MIS officials. The objective was to orient NTP and MIS decision makers and primary data entry users on the eLMIS and gather their feedback. Once UAT is completed and the findings are addressed, MTaPS will pilot the system. Based on the results of the pilot, MTaPS will roll out the system to more than 250 NTP sites in program year 4. An orientation workshop on electronic systems for eHealth and health information systems was organized, and MTaPS **Bangladesh** gave a detailed demonstration of the eLMIS, Supply Chain Management Portal, eAMS**,** and e-TB Manager.

MTaPS **Philippines** selected the vendor for a commercial off-the-shelf eLMIS solution (Entuition Vesta of Bileeta Pvt. Ltd.) and kicked off the implementation of the eLMIS 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 the eLMIS solution and implementation approach. A workshop with DOH and eLMIS stakeholders was held November 26, 2021 to validate the eLMIS requirements and confirm the system requirement specifications document. Phase 1 of implementation will roll out the eLMIS to 171 sites and is targeted for May–June 2022.

MTaPS **Bangladesh** met with USAID's TB team to demonstrate e-TB Manager and its interoperability with the Janao app. A team from the Alliance for Combating Tuberculosis was present to demonstrate the functionality of the Janao app. These two systems help to reduce cases lost to follow-up among those who visit private practitioners for TB care, thus increasing the overall TB case notification.

MTaPS **Nepal**: As part of the Pharmadex implementation, several pieces of equipment (e.g., computers, tablets, printers, furniture) were handed over to the DDA on November 18, 2021. Previously developed system requirement specifications were updated and converted to a system design plan, and the requirements of the pharmacy registration module were updated. A workshop was organized at the MTaPS office to present the pharmacy registration module and finalize the workflow. The Pharmadex

developer team is working to address feedback and change requests from DDA staff. In **Mozambique** during the previous quarter, MTaPS configured the import module in Pharmadex and installed it on the Amazon web server to be tested and deployed. During this quarter, MTaPS worked on finalizing reports, including a report on approval and final deployment of the import certification and functionality to allow ANARME, PI to issue import licenses via Pharmadex; a report on the modified marketing authorization module that is in line with WHO and SADC guidelines; and a report on the operation of Pharmadex, including its updated source code, user manual, and training materials. The modified registration module meets requirements for enhancing Pharmadex to follow the Common Technical Document format for evaluating marketing authorization dossiers, ensuring that product registration conducted by ANARME, PI, using Pharmadex will be in line with WHO/SADC guidelines.

MTaPS **Philippines** supported the Pharmacy Division (PD) to meet with Knowledge Management and Information Technology Service (KMITS) and the NTP to align and discuss different scenarios relevant to the interoperability between PViMS and Integrated Tuberculosis Information System (ITIS). MTaPS, the PD, and the NTP trained 758 participants (185 males, 558 females, 15 unknown) from 201 programmatic management of drug-resistant TB (DR-TB) facilities on the use of PViMS and issued 70 user accounts. MTaPS assisted in populating the PViMS database with an additional 83 cases.

In Q1, MTaPS **Rwanda** finalized the SOW for the consultant who will conduct the Integrated Regulatory Information Management System (IRIMS) deployment at the RFDA, effectively replacing the existing Products Regulatory Information Management System (PRIMS). The consultant has been identified and will start working in January 2022.

INCREASED AND BETTER USE OF INFORMATION ON PHARMACEUTICAL SYSTEMS FOR DECISION MAKING

The Bangladesh MOHFW organized a high-level workshop to review the implementation status of the eAMS and the way forward. The objective was to orient hospital managers on the importance of the eAMS, its functionalities, how they can make effective use of this system, how data can be used for decision making, and the role of stakeholders (e.g., data entry operators, data managers, supervisors). MTaPS facilitated the technical sessions on system functionality and data use for decision making. A total of 54 of the 62 district hospital managers attended the workshop.

Nepal's request for proposals (RFP) for development of an eLearning course for Pharmadex has been advertised, and the selection process is ongoing.

MTaPS **Philippines** supported the DOH PD to present and align with DOH active drug safety monitoring (ADSM) stakeholders such as the NTP, Lung Center of the Philippines training team, Philippine Business for Social Progress-GF, and USAID TB. PViMS training will tentatively roll out to all 198 programmatic management of DR-TB facilities by January 2022 to ensure patient safety related to DR-TB treatments. MTaPS **Philippines** started developing the content of an eLearning course on PV and planning a pilot webinar for Q2 FY22. As part of the series of webinars under Supply Chain Management Service (SCMS) for public health programs, the course aims to equip public health practitioners with basic knowledge on PV, highlight the importance of reporting adverse events (AEs), differentiate the methods of PV reporting (active vs. spontaneous), and emphasize the significance of

ensuring medicine safety in the implementation of national programs. The course will also provide an overview of PV in the Philippines, discuss the tools for PV data management (Vigiflow and PViMS), and emphasize the roles of key PV stakeholders. After receiving feedback from the FDA, DOH PD, DPCB, Center for Health Development (CHD), and public health pharmacists, the course will be converted into an eLearning module to be uploaded to the DOH's eLearning platform.

MTaPS **Philippines** also supported the PD to train PV specialists on the use of PViMS. The PV specialists are expected to check the completeness of AEs reports from the health facilities and assign the initial causality assessment in PViMS. A total of 34 participants (16 male, 18 female) from the DPCB, NTP, Epidemiological Bureau, National AIDS and STI Prevention and Control Program (ASPCP), and USAID TB Innovations and Health Systems Strengthening (TB Innovations) Project were trained on the functions of PV specialists and on the basic principles of PV and active surveillance reporting. PViMS will standardize the reporting and analysis of AE data, which is one of the essential ADSM activities to improve the safety profile of new TB drugs and regimens and inform future policy updates on the use of such medicines.

Finally, in collaboration with the **Rwanda** Biomedical Centre and RFDA, MTaPS trained 20 health care providers on tools, study protocols, consent forms, and PViMS as part of the preparations for supporting implementation of the dolutegravir (DTG)-based antiretroviral therapy (ART) regimen active surveillance monitoring study in 20 selected health facilities (10 hospitals and 10 health centers [HCs]). The outcomes of the study will help health care policy makers to make evidence-based decisions on medicine safety for ART patients.

ADVANCEMENTS IN PHARMACEUTICAL SYSTEMS STRENGTHENING RESEARCH AND THE GLOBAL LEARNING AGENDA

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

OBJECTIVE 4: PHARMACEUTICAL-SECTOR FINANCING, INCLUDING RESOURCE ALLOCATION AND USE, OPTIMIZED - QUARTER PROGRESS FOR FY22Q1

Building on the core HTA roadmap and guide for policy action in LMICs, MTaPS successfully published a systematic literature review on HTA in LMICs. MTaPS initially developed a balanced scorecard analysis and successfully presented this analysis in poster format at the Professional Society for Health Economics and Outcomes Research 2021 conference. A manuscript based on the HTA roadmap findings was then developed by MTaPS and which was accepted for publication by the Journal of Technology Assessment and Health Care. The peer-reviewed publication adds to the HTA knowledge and evidence base and serves as a useful reference for HTA work in LMICs.

MTAPS finalized the Burkina Faso pharmaceutical expenditure tracking exercise. In addition, MTaPS adapted the System for Health Accounts (SHA) 2011 framework to conduct an exploratory pharmaceutical expenditure tracking exercise in Burkina Faso using 2018 data. In collaboration with the Local Health System Sustainability (LHSS) Project, MTaPS drafted a new guideline to serve as a resource for accurate pharmaceutical expenditure tracking in LMICs. The resource complements the SHA 2011 manual and provides in-depth guidance on tracking pharmaceutical expenditures with more accuracy and detail. The approach entailed the use of more detailed data collection from national drug authorities (NDAs), national importation data sources (top-down), and subnational sources (bottom-up) to obtain pharmaceutical expenditure data. The approach also disaggregated data by drug therapeutic and disease classes undone in previous health account surveys. Following a year's work involving data collection, organization, mapping, and formatting of pharmaceutical expenditure data, MTaPS validated the process with both the country MOH and National Health Account (NHA) staff and USAID. The outputs from the validations exercises and the stakeholder meetings served as inputs for the development of a detailed policy brief on pharmaceutical expenditure in Burkina Faso using the SHA 2011 methodology.

IMPLEMENTATION OF EVIDENCE-BASED MEDICINES STRATEGIES AND PHARMACY BENEFITS PROGRAMS

During this quarter, MTaPS' systematic literature review paper, "*Exploring facilitators and barriers to introducing health technology assessment (HTA): a systematic review*" was published in the *International Journal of Technology Assessment in Health Care*. Using six databases, followed by a full text review, the systematic review paper explored article coverage of 27 HTA evaluation criteria across four primary areas of interest namely, institutional frameworks, guidelines, motivations, and barriers/facilitators. MTaPS also organized the HTAsiaLink preconference event "Health Technology Assessment pathways in LMICs: Scaling Up for Sustainable UHC in Asia" during this quarter. The pre-conference event, which featured opening remarks from the Indonesian Directorate of Health Financing and Health Insurance or Pusat Pembiayaan Jaminan Kesehatan (PPJK) program and the USAID Asia Bureau, was attended by 220 people from several other countries including Indonesia, Philippines, Vietnam, Singapore, Taiwan, Malaysia. Following a review from USAID, MTaPS is finalizing the HTAsiaLink preconference report. In addition, the draft HTAsiaLink conference digest was completed and is currently undergoing review by the HTAsiaLink conference organizers and partners. The Philippines and Indonesia were identified as the

two countries to focus on for deep dive country-level capacity building. A second regional workshop is also planned for PY4 Q3 (April/May 2022).

In this quarter, several actions to strengthen country capacity for defining and costing evidence-based pharmaceutical benefits programs were undertaken. In line with the Asia region training undertaken in PY3 focusing on how to use the OHT to cost pharmaceutical benefits packages, MTaPS submitted the training report and summary of discussions held with training participants on the utility of the OHT for future pharmaceutical benefits package costing and planning needs. MTaPS also continued discourse with the four countries that participated in the regional trainings, Kyrgyzstan, Bangladesh, Nepal and Philippines, to understand each country's potential need for light-touch help desk support or more intensive support for one OHT application, based on the interest expressed.

INCREASED EFFICIENCY OF PHARMACEUTICAL RESOURCE ALLOCATION AND USE

Efficiency in the allocation and use of resources remains a key element of sustainable financing of pharmaceuticals and related health technologies. In Indonesia, MTaPS continued working with the MOH's health financing unit (PPJK) on the initial steps for undertaking the country's pharmaceutical expenditure tracking exercise. MTaPS secured buy-in from relevant stakeholders to start data collection from various sectors in Indonesia (public, private and programs). With the help of two Jakarta-based consultants, MTaPS will submit a landscaping report of data sources identified for the tracking exercise, along with the data collected from the second meeting early next quarter. Lessons from the experience in Indonesia will be considered alongside expenditure tracking work in Burkina Faso and Benin to compile Asia region relevant guidelines for conducting pharmaceutical expenditure tracking in the region. During this quarter, MTaPS also finalized the Burkina Faso policy brief for pharmaceutical expenditures. In Benin, following the completion of the collection, organization, and formatting of pharmaceutical expenditure data, MTaPS is currently undertaking a data mapping exercise which will serve as inputs for the development of a brief for inputs into policy and decision making.

MOBILIZATION OF ADDITIONAL AND SUSTAINABLE RESOURCES INCREASED

In Jordan, MTAPS worked in collaboration with the country's National Vaccines Procurement Modernization Committee (NVPMC) and other national counterparts in preparation towards producing a comprehensive assessment report and recommendations of potential, sustainable funding mechanisms for vaccines. The report will include an implementable action plan. During this quarter, MTaPS also finalized the scope of work for its core partner R4D to cover activities under this objective based on the approved work plan.

OBJECTIVE 5: PHARMACEUTICAL SERVICES INCLUDING PRODUCT AVAILABILITY AND PATIENT-CENTERED CARE TO ACHIEVE DESIRED HEALTH OUTCOMES IMPROVED - QUARTER PROGRESS FOR FY22 QUARTER 1

INCREASED AVAILABILITY OF ESSENTIAL MEDICINES AND OTHER HEALTH TECHNOLOGIES

During this quarter, MTaPS **Philippines** worked with the DOH DPCB and SCMS to incorporate key elements of the PSCM roadmap, which was developed in the previous FY, in the devolution transition plan (DTP) of DOH for 2022–2024. Those key elements included in the DTP are as follows: the development of technical guidelines and SOPs which will support reform implementation, the coordination mechanisms between central DOH and local government units (LGUs), the technical assistance mechanisms to LGUs during reform, and the end-to-end eLMIS implementation from central to the point of care. To facilitate the implementation of those reforms, MTaPS—in coordination with DPCB—supported the development of an administrative order (AO) on "Governing Policy on PSCM System Design and Implementation Reform." The AO will set clear direction and role delineation during implementation of the PSCM reform in the context of decentralized health systems and UHC law implementation.

In this quarter, MTaPS **Jordan** continued its support to the NVPMC and other relevant stakeholders through advocacy and follow-up on the fulfillment of the conditions precedent set by. Building up from the previous FY's achievement in modernizing the vaccines procurement, a confirmation letter from the LOB was issued to the MOH on the adoption of amendments on the procurement by-law, namely the addition of an article that permits price negotiation, and the extension of a procurement framework agreement from two to five years. The amendments are expected to be approved by the Prime Minster. In addition, MTaPS **Jordan** facilitated sharing of price reference for vaccines by JFDA to the government procurement department during Quarter 1 referencing one of five conditions precedents expected to be used during the upcoming procurement processes. Besides this, acceptance of expedited registration of WHO-prequalified vaccines was published in the National Gazette on October 17, 2021. The above legal and regulatory reforms will allow the MOH to introduce strategic procurement of vaccines and help the procurement system become more efficient and effective for uninterrupted availability of vaccines. MTaPS will continue supporting the NVPMC in outlining next steps for implementation of the procurement legislative and policy reforms. In addition, MTaPS **Jordan** developed a scope of work to engage a consultant to review and update the Procurement and Supply Directorate (PSD) policies and procedures to ensure a policy environment for effective and efficient SCMS implementation.

MTaPS **Bangladesh** collaborated with UNFPA, UNICEF, and the MaMoni project of Save the Children to scale up the roll out of the DGHS eLMIS for priority MNCH medicines by organizing TOTs in six districts. A total of 199 participants (57 female and 142 male) attended the training. This will ensure availability of more MNCH stock and consumption data from those districts which will be used for program monitoring, planning, and procurement decision making.

In addition to the above activities, MTaPS **Bangladesh** supported the Central Medical Stores Depot (CMSD) in revising job descriptions, including delineating roles and responsibilities of officers working in the warehouse. The modified SOPs were presented by MTaPS during a workshop organized by CMSD. As part of supporting DGHS in developing an automated IMS at CMSD, MTaPS **Bangladesh** facilitated two meetings, an architectural design on the proposed system was presented, and feedback was received from CMSD officials. Once the architectural design is approved, it will guide in the development of detailed users and functional requirements, which will in turn facilitate the development of automated IMS at CMSD. The system will contribute to timely reporting with quality data on the stock receipts, distribution, and supply pipeline, which will inform managers to make supply chain decisions.

Also in this quarter, MTaPS **Bangladesh** presented findings on the declining consumption trend of major contraceptive products for the last seven years. The declining consumption trend might lead to overstock and ultimately expiry of those products. The Secretary and DG acknowledged these findings and instructed all stakeholders to escalate monitoring and supervision in the field and take necessary action to improve the performance of FP field workers in program implementation.

As part of sustainable HR and institutional capacity building for the supply chain, MTaPS **Philippines** worked throughout this quarter with the DOH to revisit the PSCM workforce development plan in support of the recent organizational restructuring and policy changes due to UHC laws and DTP. The PSCM workforce development plan is currently being aligned with the recent changes in the public health and PSCM context to be incorporated in the health HR master plan of the **Philippines**. The revision will guide the hiring and capacity building of the health workforce at different levels to effectively and efficiently carry out PSCM functions in the context of UHC laws and DTP.

Also in this quarter, MTaPS **Philippines** obtained technical clearance from DOH on four e-learning modules developed along with the DOH: *Pharmaceutical System Strengthening (two modules), Warehouse Operations Management*, and *Procurement and Supply Chain Management Overview*. These modules were previously presented through webinars to participants from the DOH, CHDs, and LGUs. MTaPS has developed storyboards and is working on converting these modules into e-learning courses to be uploaded to the DOH Academy—the e-learning platform of DOH. These courses through the e-learning platform will help staff at DOH, CHDs, and LGUs to further develop their skills and competencies at their own pace during the current pandemic.

In **Jordan**, to support the MOH in enhancing their institutional capacity to manage pharmaceutical commodities, MTaPS developed a SOW to engage consultants to undertake an assessment of the entire health supply chain system. The assessment will build upon the initial work done through the LHSS Project. The assessment will identify and outline key supply chain interventions and guide MTaPS' technical support to the MOH.

As part of resource optimization, MTaPS **Philippines** continued supporting strategic procurement activities such as pooled procurement and framework agreements. In this quarter, MTaPS supported the procurement of GeneXpert cartridges by a pooled procurement mechanism through the Philippines Pharmaceutical Procurement Inc. (PPPI) for region five. MTaPS also facilitated a meeting with the GeneXpert cartridges supplier, Cepheid, to discuss and analyze the best way to facilitate pooled

procurement activity. While Cepheid's local counterpart did not take part in the bidding process conducted by PPPI, the best option identified for the PPPI was to fulfill the order from region five (and demands from regions three, eight, and nine) by procuring through the Global Drug Facility (GDF). In addition, DPCB has included pooled procurement mechanism and framework agreements as its strategies with key activities in the DOH DTP. This inclusion will support the DOH to implement strategic procurement approaches to use resources effectively and efficiently and to improve sustainable access and availability of essential commodities at the primary point of care.

In **Bangladesh**, MTaPS supported DGHS on the utilization of the eAMS by organizing an orientation workshop in collaboration with MOHFW. A total of 54 district hospital managers attended the workshop. The eAMS is helping to track availability and functional status of medical equipment from procurement to decommissioning to ensure better asset management and efficient resource utilization. Also in this quarter, MTaPS supported DGHS in organizing a workshop for the committee in updating the list and price of medical and surgical requisites (MSRs). During the workshop, the committee decided to have a strategic option, such as identifying and updating lists and prices for the most common instruments as well as exclusion of capital items from the list through the DGHS finance unit. The updating of lists and prices will contribute to efficient and effective procurement of MSRs.

In **Bangladesh**, MTaPS supported the NTP in completing quantification of first- and second-line TB medicines. The output from the quantification is used to generate procurement orders for second-line TB medicines and is submitted to the GDF and the GF for on-time procurement. In this quarter, MTaPS presented the findings from the peripheral TB storage assessment to stakeholders and a transition plan for integration of TB storages into the government system was developed. When the plan has been implemented and transitioned to the government, it will ensure ownership and sustainability of the TB medicines supply chain systems.

Finally, in this quarter, MTaPS **Philippines** supported DOH in updating the warehouse operations manual (WOM) to include sections on reverse logistics and emergency supply chain, especially to address the needs for managing COVID-19 commodities. The updated manual was officially approved by the Secretary of Health, PSCM Undersecretary, and SCMS Director. The updated sections of the WOM will help streamline the business processes for pharmaceutical waste management and supply chain emergency responses. MTaPS will also support DOH in printing and disseminating the WOM in the next quarters. MTaPS also supported the Commission on Population and Development (POPCOM) to develop a WOM to manage storage and distribution of FP commodities through the network of POPCOM-owned warehouses.

IMPROVED PATIENT-CENTERED PHARMACEUTICAL CARE

No activities were held this quarter.

IMPROVED PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS

In **Bangladesh**, MTaPS engaged the staff of the DGDA and WHO HQ experts to discuss and finalize the corrective and preventive action (CAPA) plans of the recent WHO assessment on regulatory systems and functions, including PV. Following the finalization of the CAPA plan, MTaPS assisted DGDA in addressing the CAPA related to PV function. The support included development of a master plan for

meetings; an awareness program; formation and facilitation of TWG meetings to update national PV guidelines and define staff roles and responsibilities; review of the DGDA organization chart to fit a PV department; and drafting of the PV risk communication procedure. All these actions will contribute to increase the scores towards attaining maturity level 3 for PV function at DGDA.

MTaPS **Burkina Faso** is working with the NMRA and the National Malaria Control Program (NMCP) to establish and implement an active safety surveillance system for the newly introduced anti-malarial, Pyramax. Pyramax was officially adopted by **Burkina Faso** for the treatment of uncomplicated malaria in October 2021. After this adoption, MTaPS held a meeting with the NMRA and NMCP focal points to discuss next steps, including the establishment of a coordination or steering committee for active surveillance. In this quarter, the MTaPS team reviewed the PV workplan, considering the potential procurement of the medicine for use in two pilot regions—namely Cascades et le Sud-Ouest—and the need to change the study implementation sites compared to the original plan. In addition, MTaPS has also submitted a request to the NMCP, NMRA, and Directeur du Système d'Informatique en Santé (DSIS) to conduct a presentation and demonstration of PViMS and discuss the possibility of installing it on the DSIS platform. The agreement of all relevant stakeholders will allow smooth adoption, installation, and use of PViMS for the study; MTaPS is currently awaiting a response.

In **Jordan**, MTaPS continued working closely with the Pharmacy and Clinical Pharmacy Directorate (PCPD) on strengthening the technical and systematic functions of COVID-19 vaccines safety surveillance. In October 2021, MTaPS collaborated with the PCPD to coordinate a high-level meeting with the MOH Secretary General, the Director of the Project Management and International Cooperation Directorate, and the USAID/Jordan Project Management Specialist to present and discuss the safety surveillance data collected in August 2021. MTaPS presented challenges faced during analysis, and the PCPD Director committed to communicating the challenges to the Electronic Transformation and Health Information Directorate and data collectors to improve data quality going forward. In November 2021, MTaPS provided a hands-on training session to relevant PCPD staff on how to clean the raw AEFI data extracted from the electronic system used to store the primary data sets. MTaPS assisted the PCPD staff with the data cleaning and processing step for subsequent aggregation and analysis. MTaPS and PCPD agreed that MTaPS staff will clean, process, and analyze the AEFI data collected in September 2021 and that the PCPD staff would carry out these steps in subsequent months. MTaPS received the data collected in September at the end of October 2021 and expended a significant amount of effort cleaning, validating, and processing the data. MTaPS then conducted a thorough analysis of the data and presented it to the PCPD management and technical staff for their feedback. In December 2021, the national PV and COVID-19 vaccines AEs monitoring committee convened to discuss the data analysis so far, and next steps for the MOH's COVID-19 vaccines safety surveillance efforts. MTaPS presented data analysis for August and PCPD presented data analysis for September. MTaPS expressed its full support to the committee in producing a thorough analysis of the collected data so far and producing a comprehensive report to be shared with key decision makers. During the meeting, it was expressed by the committee chairperson that the committee would be reformed; thus, following the meeting, MOH issued an official letter signed by the Minister of Health indicating the reform of the committee with the addition of new committee members.

During this quarter, MTaPS **Mozambique** continued to provide technical assistance to ANARME, PI, the HIV control program, and the TB control program in establishing and implementing active safety

surveillance of newly introduced HIV and TB medicines. MTaPS worked with ANARME, PI to increase patient follow-ups and AE reporting on safety of tenofovir, lamivudine, and dolutegravir (TLD). MTaPS supported ANARME, PI to develop, review, discuss, and approve an action plan to improve the follow-up of enrolled patients and reporting of AEs. In addition, MTaPS continued supporting the ANARME, PI and the HIV program to undertake supervisory calls to all nine participating health facilities to increase usage of the PViMS (entry of missing data/forms) and to evaluate the health facilities progress on ensuring patient follow-ups and completion of Form B. As a result, problems with the organization of forms—which contributed to the differences in the PViMS data against the reported number of filled hard copy data collection forms—were identified in some health facilities, such as Macia health center, Machava II health center, Ndlavela health center, and Carmelo health center. Also, during this quarter, MTaPS supported ANARME, PI and the HIV program to undertake another round of onsite supportive supervisory visits to three health facilities: Ndlavela and Machava II health centers in Maputo province and Mavalane health center in Maputo City. The activity was coordinated with the Provincial Directorate of Health and Maputo City Health Directorate. The supervision calls and visits allowed ANARME, PI and the HIV program to support the staff of the implementing health facilities to refresh their knowledge of the study protocol, improve physical archiving and data entry into PViMS, undertake progress reviews, and develop an action plan with proposed improvements to data quality and overcome challenges. In this quarter, as a result of these interventions, the number of patient follow-ups increased from 4,920 to 7,447 and the number of AEs reported increased from 52 to 88. In addition, MTaPS continued to provide technical assistance to establish and implement an active surveillance system for TB preventive treatment. MTaPS has received and reviewed comments on the study protocol from the US CDC HQ and addressed the comments. A validation exercise was conducted with USAID and CDC **Mozambique** colleagues to review the proposed adjustments to the protocol in response to the queries from the CDC HQ reviewers, and a comprehensive response was submitted to the reviewers after the validation exercise. MTaPS also worked with ANARME, PI in coordination with the Maputo City Health Directorate to select one health facility where piloting of the study data collection forms will be undertaken (i.e., Mavalane health center in Maputo City). The revision of the protocol in response to CDC HQ reviewers and the piloting of the data collection forms will increase validity of scientific and analytical rigor of the study and will guide the implementation of the study protocol and procedures.

MTaPS **Nepal** continued to strengthen Nepal's PV system at the national and provincial levels. MTaPS supported the DDA in reviewing safety studies of new molecules and budgeted for post-marketing surveillance sample collection. MTaPS also assisted in cleaning the data on AEFI of COVISHIELD vaccine and supported reporting of the AEFIs into Vigiflow. In the same quarter, MTaPS prepared a situational analysis and a detailed implementation and risk-based communication plan for strengthening PV in Nepal.

In addition, MTaPS facilitated a discussion with DDA on the draft system requirement specifications of electronic PV data management systems and customization of the PViMS tool to the Nepalese context has commenced. MTaPS has drafted and shared PV regulations with the International Law Institute-African Center for Legal Excellence for their input. MTaPS also drafted PV guidelines and SOPs and submitted to DDA for their review. The finalization and implementing of these documents will help increase the maturity level of DDA.

In this quarter, MTaPS **Philippines** supported the Philippines FDA in reviewing and updating the national PV AO to ensure that both spontaneous reporting and active surveillance are incorporated in the updated version of the policy. With the goal of establishing the national medicine safety advisory committee, that will provide oversight on national medicine safety, MTaPS supported the FDA in drafting the TOR for the committee. Considering the FDA's suggestion not to duplicate efforts of the national drug advisory committee, the TOR ensure alignment of the functions and responsibilities of the technical members who are tapped to provide expert advice on the safety, quality, and efficacy of medicines. The draft TOR will be shared with the FDA, and MTaPS will organize a meeting to address clarifications and discuss steps on how the committee can contribute to the greater goal of strengthening PV in the country. In addition to these activities, MTaPS started developing the contents of a PV e-learning course and is planning to organize a pilot webinar in Q2 of FY22. The course aims to equip the public health practitioners with the basic knowledge of PV, including the importance and significance of reporting AEs and ensuring medicine safety in the implementation of the national health programs. The course will also provide an overview of PV in the Philippines, discuss the tools for PV data management (Vigiflow and PViMS), and emphasize the roles of the key PV stakeholders. The course will be converted into an e-learning module and will be uploaded to DOH's e-learning platform after receiving feedback from FDA, DOH pharmaceutical division, and other pertinent stakeholders.

MTaPS **Rwanda** has continued to supporting RFDA and the Rwanda Biomedical Center to establish and implement an active safety surveillance system for the newly introduced DTG-based ARV regimens and to further strengthen the existing spontaneous safety reporting system. MTaPS has trained 20 health care providers (16 female and 4 male) from the implementing health facilities on the protocol, tools, and consent form of the active safety surveillance. In the same quarter, and right after the training, patient enrollment commenced, and so far, 100 patients have been enrolled in the study. The purpose of the study is to provide more insight on the safety profile of the DTG-based ARV regimens in the Rwandan population.

In this quarter, MTaPS **Tanzania** provided technical assistance to Tanzania Medicines and Medical Devices Authority (TMDA) in training on assessment of periodic safety update reports (PSURs) and risk management plans (RMPs). A total of 27 (10 female and 17 male) participants—namely TMDA staff and external assessors—were trained on the role of RMPs and PSURs in PV, assessing PSURs and RMPs, writing reports, and communicating safety information. A representative from TMDA acknowledged the support from MTaPS and requested more support due to many gaps yet to be addressed, including training of domestic manufacturers and market authorization holders on PV systems with the aim of empowering them to establish a functional PV system for product safety monitoring as well as submitting PSUR and RMP documents as per TMDA's regulations and requirements. In addition, TMDA conducted a workshop for members of the VTC to build their capacity in executing their duties in line with the vigilance framework of Tanzania and the revised TOR of the VTC that was developed with MTaPS' support. Following the official appointment of the new members (i.e., the pediatric experts) by TMDA, the workshop was taken as an opportunity to officially inaugurate the revamped committee.

Finally, MTaPS, in collaboration with IGAD, carried out several PV-related activities in the areas of capacity building on PV data management and use for decision making and increasing manufacturers' understanding of and adherence to good PV practices. MTaPS continued to engage the PPB of Kenya, which is designated as the RCORE for PV and PMS to boost its capacity for PV data review, analysis, and

utilization. Through this activity, MTaPS supported the PPB in the development and implementation of a targeted spontaneous reporting (TSR) protocol to be implemented in select sentinel sites for the reporting of COVID-19-vaccine-related adverse events. A total of 15 (12 male and 3 female) participants from the cross-border county of Turkana were trained on how to conduct the TSR and reporting of adverse events. In addition, MTaPS participated in the IGAD-led Pharmaceutical Manufacturing Conference held on November 3–4, 2021, and made a presentation on the support for local manufacturers in the IGAD and EAC regions and highlighted baseline assessment findings on the regulatory compliance capacities of local manufacturers. MTaPS also used the opportunity to educate the participants on the importance of PV and safety monitoring, specifically the requirements and importance for a functional PV system in the industry.

PROGRESS BY REGIONAL BUREAU PORTFOLIO

ASIA REGIONAL BUREAU - QUARTER PROGRESS FOR FY22Q1

OBJECTIVE 1: CAPACITY TO CONDUCT AND USE HEALTH TECHNOLOGY ASSESSMENTS (HTAS) TO SUPPORT THE INSTITUTIONALIZATION OF TRANSPARENT AND EVIDENCE-BASED DECISION MAKING IN ASIA REGIONAL COUNTRIES STRENGTHENED

PY3 Activity 1.1.1: Apply and disseminate the HTA roadmap guidance document in the region

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. This study aimed to identify and codify the facilitators and barriers to help implementing partners institutionalize HTA successfully and navigate complex systems for health-related policy making. This systematic review explored peer-reviewed and gray literature articles examining HTA programs globally 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.

A sub-activity added this year was to conduct the HTAsiaLink preconference event and develop a conference digest. 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 MTaPS 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 pre-conference event was attended by 220 people from Indonesia, the Philippines, Vietnam, Singapore, Taiwan, Malaysia, and other countries worldwide. The attendees included representatives from government agencies, MOHs, multilateral institutions, academic institutions, the private sector, NGOs, and others.

The MTaPS-organized pre-conference event featured opening remarks by the PPJK and USAID Asia Bureau, two technical presentations, two case studies, and country action planning sessions (presentations listed below):

- HTA roadmap: a stepwise approach and HTA in Asia - a balanced scorecard exercise by Dr. Christian Suharlim
- HTA in support for UHC: beyond benefits package design by Dr. Wija Oortwijn
- Case study: Institutionalization and legalization pathways for HTA (Ukraine) by Dr. Rabia Kahveci

- Case study: HTA institutionalization in India: journey, success, and challenges (India) by Dr. Shankar Prinja

At the MTaPS-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. Further, 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, should a future capacity building activity be focused on Indonesia and the Philippines, the topics of benefit package design and real-world evidence would be of interest for these countries' immediate needs for growth.

In the exploration of country-specific needs, participants indicated needs to strengthen HTA agencies (Indonesia and Philippines), standardize HTA processes and milestones (Indonesia and Malaysia), and improve transparency in HTA processes (Singapore, Malaysia, and Taiwan). These are in line with PY4 Activity 1.1.1 "Explore the feasibility of an HTA capacity building hub or collaborative institution in the region" to further cultivate the environment conducive to retaining talent and capacity, while improving connectivity among the various HTA agencies in the Asia region to enable the free exchange of information and best practices.

The draft HTAsiaLink pre-conference report was completed, and it received positive feedback from USAID as it continues through the editorial process. The draft HTAsiaLink conference digest was completed and is currently undergoing review by the HTAsiaLink organizing committee and partners. The Philippines and Indonesia were identified as the two countries to focus on for country-level capacity building. A second regional workshop is planned for PY4Q3 (April/May 2022).

PY3 Activity 1.1.2: Develop and disseminate HTA strategic briefs on lessons learned for HTA advancement in the region

In the HTAsiaLink regional workshop, MTaPS captured the discussion of the breakout group for The Philippines, Indonesia, and other Asia LMICs and high-income countries. The discussion explored countries' application of the HTA development categorization and advancement as outlined in the roadmap. Countries also discussed their needs for technical assistance, which were then charted to the needs identified in the roadmap. This exercise provided important insights as MTaPS is working on the strategy briefs and lessons learned.

In addition, MTaPS conducted interviews for consultants to support this activity following the departure of MSH staff members. A strong candidate was identified and is now in the hiring process. In the meantime, MTaPS engaged an intern to start a review of the Osterwalder Business Model Canvas and its application for HTA. The review will support the new consultant to expedite the process in completing the strategy brief document (due in September 2022).

PY4 Activity 1.1.1: Explore the feasibility of an HTA capacity building hub or collaborative institution in the region

Implementation of this activity will start in the next quarter based on the upcoming results of the previous activities.

The HTA activities will inform policy decision making in health care and contribute to uptake of new cost-effective technologies, strengthening pharmaceutical systems to ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable medical products in the Asia region and globally.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
PY3 2.1.1: Apply and disseminate the HTA roadmap guidance document in the region • Finalize and submit HTAsiaLink pre-congress report • Finalize and submit HTAsiaLink briefs • Develop first draft of paper/publication aimed at peer-reviewed journals, in collaboration with HTAsiaLink 2021 organizers and leadership • Develop concept note and preparation for the second regional workshop, aimed at supporting Indonesia and the Philippines, planned for April/May 2022	Jan-Mar 2022
PY3 2.2.1: Develop and disseminate HTA strategic briefs on lessons learned for HTA advancement in the region • Develop actionable strategy briefs based on country-level activities	Jan-Mar 2022
PY4 1.1.1: Explore the feasibility of an HTA capacity building hub or collaborative institution in the region • Conduct desk research for recent evidence; conduct key informant interviews; and convene virtual discussions on need, feasibility, and potential institutions in the region that could function as a capacity building hub in the region	Jan-Mar 2022

OBJECTIVE 2: CAPACITY TO DEFINE AND COST EVIDENCE-BASED PHARMACEUTICAL COVERAGE AND PROMOTE SHARING OF PHARMACEUTICAL PRICES TO IMPROVE VALUE IN PURCHASING IN THE ASIA REGIONAL COUNTRIES STRENGTHENED

PY4 Activity 2.1.1: Build capacities related to the use of the OneHealth Tool (OHT) to cost pharmaceutical benefit packages

In PY3, MTaPS developed and delivered two trainings for countries in the Asia region on how to use the OHT to cost pharmaceutical benefits packages. These trainings built upon the guidance MTaPS developed in PY2, which reviewed tools to cost pharmaceutical benefits packages and explained how to use OneHealth for such an exercise. In PY4 Q1, MTaPS completed and submitted the training report and the summary of discussions held with training participants on the utility of the OHT for future costing and planning needs related to pharmaceutical benefits packages.

MTaPS also continued conversations with the four countries involved in the regional trainings (Kyrgyzstan, Bangladesh, Nepal, and the Philippines) to understand each country's potential need for light-touch "help desk" support or more intensive support for one OHT application, based on the interest expressed.

PY4 Activity 2.2.1: Develop materials for standardization of pharmaceutical expenditure tracking in the Asia region

Under the Indonesia field support (FS) buy-in, MTaPS continued working with the PPJK on initial steps in the pharmaceutical expenditure tracking exercise. With the support of two local consultants in Jakarta, the team convened one meeting to secure buy-in from the relevant stakeholders and the second to begin collecting data from various sectors in Indonesia (public, private, and program data). The pharmaceutical expenditure tracking consultant will submit a landscaping report of data sources identified for the tracking exercise, along with the data collected from the second meeting early next quarter. Lessons from the experience in Indonesia will be considered alongside expenditure tracking work in Burkina Faso and Benin in compiling a knowledge product relevant for the Asia region.

Activities in this objective will contribute to a more value-based approach to pharmaceutical access that would help countries slow escalating health spending without sacrificing access to safe and reliable medicines that have the maximum health impact.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
2.1.1: Build capacities related to the use of OHT to cost pharmaceutical benefit packages • Confirm the country MTaPS will support with the application of OHT to cost pharmaceutical benefits, and begin the costing exercise • Provide light-touch, remote help desk-style technical assistance to other countries from PY3 trainings who choose to apply OHT in their context	Jan-Mar 2022
2.2.1: Develop materials for standardization of pharmaceutical expenditure tracking in the Asia region • Identify key lessons learned to highlight in knowledge product to be developed later in PY4	Jan-Mar 2022

OBJECTIVE 3: MEDICINES REGULATORY CAPACITY AND PHARMACEUTICAL-SECTOR GOVERNANCE IN ASIA REGIONAL COUNTRIES STRENGTHENED

PY3 Activity 3.2.1: Enhance pharmaceutical regulatory expertise among the region's workforce in product registration and pharmacovigilance

MTaPS completed data collection for the regional competency mapping for pharmaceutical regulation in Nepal. A draft report on the analysis and recommendations to address the gaps is being prepared and will be shared with the Nepal DDA for consideration and action next quarter. Data collection was initiated in the Philippines and is ongoing in Bangladesh. MTaPS set up a coordination point in Vietnam to

undertake the competency mapping exercise given the absence of a field office. This activity will inform the required support to enhance the expertise in product registration and PV in these countries and validate the processes that can be further applied to other countries in the region.

Joint review sessions serve as a mechanism to improve mutual reliance on information supplied by regulatory authorities within a regional network. Countries gain trust by cooperating during this process. Some countries in the region lack the technical expertise to evaluate registration of complicated products like vaccines and biologics. MTaPS facilitated a regional capacity building session for evaluation of vaccine dossiers for assessors in Bangladesh and Nepal. As members of the South-East Asian Regulatory Network (SEARN), both countries were able to exchange information, share experiences, and learn from each other with guidance from MTaPS experts. The virtual capacity building session that took place from December 13-17, 2021, focused on evaluation of the COVID-19 vaccine dossier and was attended by 25 assessors (8 female and 17 male).

During the session, participants were able to obtain scientific knowledge on the COVID-19 vaccine, understand the critical elements to look out for while performing evaluation of COVID-19 dossiers, and use the principles for assessment of other vaccines. Interactions among assessors from the two countries enabled sharing of local experiences and discussions on strategies to address challenges faced during the assessment of vaccine dossiers and medical products in general. The joint capacity building session helped solidify the association among the two SEARN member states facilitating convergence of approaches in assessment of medical products. The information gathered from the session will enable quality evaluation of vaccines and expedited access to essential products on the market in the region.

PY3 Activity 3.2.2: Facilitate policy convergence of regional technical requirements for medicines registration among Asian countries

The process of gathering information from countries to facilitate the preparation of the regional workshop on the convergence of technical requirements was completed for Bangladesh and Nepal and is pending for the Philippines and Vietnam. The information was analyzed for Bangladesh and Nepal and informed the virtual capacity building on medicines registration for specialized products for regulators in the Asia region reported above. Follow-up will be undertaken by MTaPS to obtain the information from the remaining countries and plan for the regional workshop on convergence of technical requirements for medicines registration in the ASEAN and SEARN member states in the next quarters.

PY4 Activity 3.1.1: Provide technical assistance to Asian countries to institutionalize regulatory processes and best practices in registration of medical products

To promote convergence of technical standards and guidelines for medicines registration in the Asia region, MTaPS facilitated the participation of regulatory assessors in a workshop conducted by the MTaPS partner Center of Regulatory Excellence (CORE), Singapore. MTaPS collaborated with CORE Singapore to conduct a second workshop on application of good reliance principles from September 27-29, 2021. Assessors from Bangladesh attended the workshop along with other Asian regulators. They were able to obtain more knowledge on the principles of good reliance practices and application while performing assessments of medicines dossiers before granting marketing authorization. Participants were able to assess the suitability of risk-based and regulatory reliance approaches for the local

regulatory environment; describe the various models and process requirements in regulatory reliance, including the use of datasets from innovative trials and for urgent public health situations; apply risk-benefit assessment in regulatory reliance approaches for product evaluations; and describe the utility of regulatory reliance for the product life cycle and the involvement on a regional level. Experiences from other continental settings were shared during the workshop. By using case studies and group activities, participants were also able to apply principles and approaches to real-life situations, discuss among each other, and present practical solutions to enhance reliance pathways. The first workshop organized by CORE without MTaPS' direct input was attended by assessors from the Philippines and Vietnam during Q3 PY21. Due to lengthy bureaucratic procedures, participants from Nepal were unable to attend this workshop. Efforts are underway to secure the workshop materials and share them with the Nepal team and other Asian countries for information and reference.

PY4 Activity 3.1.2: Create models for adoption of Global Standards to support the development of regulatory information management systems for electronic transmission of information in Asia

MTaPS and PQM+ developed a draft repository of regulatory IMS standards that countries could use as a reference and adopt to promote uniform capture of data and system interoperability across IMS platforms and regulatory functions within the NMRA across the region and globally. Under the cross bureau, the two programs organized two workshops for consultations with stakeholders on the draft regulatory standards for IMS, scope, and use case. Participants were drawn from the pharmaceutical regulatory sector, including regulators from ASEAN and SEARN as well as development partners. Participants provided input and comments on the scope of the regulatory standards for IMS along with the use case, thus refining the draft report on the regulatory standards for IMS.

Once the standards are agreed upon, a plan to conduct advocacy workshops will be implemented in the next quarters. Countries are expected to adopt the regulatory IMS common standards and incorporate them into the SRS. Countries are also expected to upgrade their regulatory IMS in the future, adopting the established common standards and ensuring that regulatory functions are digitalized in accordance with international norms to facilitate uniform data capture and interoperability.

PY4 Activity 3.2.1: Support ASEAN PPWG's joint assessment procedures by facilitating joint review sessions for assessment of medical products

Following up on the PY3 Activity 3.1.1 "Collaborate with Asian networks, such as ASEAN and SEARN, to adopt uniform medicine registration processes," MTaPS and PQM+ presented the plan to support the ASEAN PPWG with priority areas. The identified areas of support were aligned to the survey report compiled by ASEAN from the 10 member states, which focused on the preferred areas for training and capacity building to improve the regulatory workforce in the region. During the 32nd ASEAN PPWG meeting held on November 12, 2021, members consented to the presented areas of support and agreed on the mode of operation and the next steps for implementation. MTaPS provided the indication of countries and regions of operation and awaits official agreement from ASEAN to initiate the implementation.

PY4 Activity 3.2.2: Develop and continuously review regional training plans for NMRA staff to build their technical capacity on key aspects of registration and regulatory inspections

Development of regional training plans follows on the PY3 Activity 3.2.1 "Enhance pharmaceutical regulatory expertise among the region's workforce in product registration and pharmacovigilance" and will start in Q3 FY22.

PY4 Activity 3.3.1: Support the development of a risk communication plan

The proposal to develop a risk communication plan was presented during the 32nd ASEAN PPWG meeting held on November 12, 2021 and awaits formal agreement from the ASEAN secretariat to proceed with the implementation in the next quarters.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Finalize data collection for the competency mapping in the three remaining countries: Bangladesh, Vietnam, and the Philippines	Jan-Feb 2022
Follow up with ASEAN secretariat on implementation of the capacity building session on joint reviews for vaccine dossiers and development of risk communication plan	Jan 2022
Plan for the training on assessment of product dossiers focusing on biologics and vaccines for ASEAN member states and the virtual regional workshop to foster convergence of technical standards and requirements for registration of medicines in Asia	Feb 2022
Develop SOW for regional guidance to address gaps in competency based on the mapping conducted in the four countries	Mar 2022

OBJECTIVE 4: PHARMACEUTICAL-SECTOR GOVERNANCE IN ASIAN COUNTRIES STRENGTHENED

PY2 Activity 3.2.1: Develop a how-to manual on managing COIs

The report that summarized the findings of a study conducted by the WHO South-East Asia Regional Office (SEARO) Department of Health System Development, WHO Geneva's Department of Health Products Policy and Standards, and MTaPS in 11 countries in the south-east Asia region was finalized in this reporting period. The report of the study, which was conducted as a first step to develop a how-to manual on COI management, is expected to be posted on the WHO SEARO website in the next quarter. A manuscript entitled "Disclosure, transparency, and accountability: A qualitative survey of public sector pharmaceutical committee conflict of interest policies in the World Health Organization South-East Asia Region" that summarizes the results of the study was submitted to the Globalization and Health journal in November and will be under review in the next quarter.

The draft COI how-to manual developed by MtaPS with support from WHO Geneva's Department of Health Products Policy and Standards was revised to address the comments from WHO and MtaPS internal reviews. The Director of WHO's Health Products Policy and Standards Department then invited a group of external experts and WHO's six regional advisors on pharmaceuticals to review the draft manual. Seven invited reviewers—including experts in pharmaceutical systems, ethics, academics,

and lawyers working in the health area—have already provided comments, and two others have confirmed that they will respond in January 2022. Next quarter, the manual will be revised to address external reviewer comments after which it will be submitted for WHO editing and approval.

PY3 Activity 4.1.1: Support implementation and dissemination of the how-to manual on COIs

MtaPS held initial discussions with WHO on potential dissemination activities once the COI manual is completed—including a webinar organized by WHO—and initiated the planning process and design and curriculum outline to develop an e-learning course which will support implementation of the how-to manual on managing COIs.

PY4 Activity 4.1.1: Conduct a review/assessment on procurement policy, organizational capacity, and technical competency in one Asian country

MTaPS facilitated discussions with USAID Asia Bureau and USAID Philippines to select a relevant Asian country to conduct the procurement option analysis. The Philippines was selected for the analysis to complement the in-country FS procurement-related activities. MTaPS also drafted an SOW to engage an international procurement expert to conduct the analysis.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Activity PY2 (3.2.1) and PY3 (4.1.1): Share the WHO SEARO study report with USAID once posted; respond to peer-reviewed journal comments to finalize the related publication, if accepted; address external reviewer comments on the COI how-to manual and submit to WHO for editing and approval; work with WHO to identify a country to pilot the manual; plan webinars to support dissemination of the study results and manual; develop a concept note and begin development of content for the e-learning course based on the draft COI how-to manual	Jan-Mar 2022
Activity PY4 (4.1.1): Finalize the SOW and engage the international procurement expert, develop the study (option analysis) design, and commence the assessment	Jan-Mar 2022

INTERGOVERNMENTAL AUTHORITY ON DEVELOPMENT (IGAD) AND EAST AFRICAN COMMUNITY (EAC) - QUARTER PROGRESS FOR FY22Q1

IGAD countries

Djibouti
Eritrea
Ethiopia
Kenya
Somalia
South Sudan
Sudan
Uganda

EAC countries

Burundi
Kenya
Rwanda
South Sudan
Tanzania
Uganda

MTaPS engaged the (PPB, which is Kenya's NMRA and is a designated RCORE in Africa in PV and PMS, to boost its capacity to utilize PV data for decision making. MTaPS supported the development and implementation of TSR 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 the IGAD region and beyond 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

OBJECTIVE 1: IMPROVE PHARMACEUTICAL-SECTOR GOVERNANCE

IGAD Activity 1.1.1: Support IGAD in establishing and operationalizing governance structures for PV

Sub-activity 1.1.1a: Development of a costed work plan for the IGAD PV EWG for resource mobilization within the member states and other stakeholders

MTaPS continually engaged the IGAD Secretariat to discuss and review activity implementation and discuss modalities to finalize pending activities. Coordination meetings on October 7 and December 20, 2021, focused on prioritizing activities and timelines. These activities included the development of a costed work plan, development of an in-service training curriculum and training of regional trainers of trainers, building capacity of selected NMRAs to analyze PV data, and support for local manufacturers on adherence to good regulatory practices and PV.

In collaboration with the IGAD Secretariat and IGAD member states, MTaPS planned for the IGAD PV EWG meeting on October 7, 2021, to validate and ratify the baseline assessment of PV systems in IGAD member states. Members were able to finalize the report and discuss country-level PV implementation activities targeting safety monitoring for COVID-19 products. Participants also discussed the roadmap for the development of a costed work plan as an outcome of the baseline assessment findings to assist the Secretariat in mobilizing funds to address regional gaps. This meeting was attended by PV focal persons from the IGAD member states of Djibouti, Ethiopia, Kenya, and Uganda.

OBJECTIVE 2: STRENGTHEN INSTITUTIONAL AND HUMAN RESOURCE CAPACITY TO MANAGE PHARMACEUTICAL SYSTEMS

IGAD Activity 2.1.1: Build capacity of selected NMRAs and cross-border sites in IGAD and EAC to analyze and use PV data for regulatory decision making

Sub-activity 2.1.1c: Build capacity of selected NMRAs (the RCORE in PV) in EAC and IGAD to analyze and use PV data for regulatory decision making through training and provision of the appropriate tools and SOPs

MTaPS continued to engage the PPB as the RCORE on PV and PMS in Africa to build its capacity to review and use PV data for decision making.

Roll out of TSR in Turkana County October 26–27, 2021

MTaPS supported the PPB in the development and implementation of a TSR protocol in select sentinel sites to report COVID-19 vaccines-related AEFI. A training for the cross-border county of Turkana was held October 26–27, 2021, targeting Lodwar CRH in Turkana County and incorporating the county and subcounty health management teams through COVID-19 support. Fifteen (12 male, 3 female) participants were trained on conducting TSR and reporting of AEFI.

MTaPS offered technical assistance to the PPB as part of the national TWG on PV/PMS in the development of a two-year work plan for PV/PMS through a three-day workshop November 23–25, 2021. The work plan seeks to strengthen PV/PMS components, including stakeholder engagement, resource mobilization, regulatory capacity building, and policy guidelines. The TWG comprises various stakeholders, including the MOH; public health programs; National Quality Control Laboratory; Kenya Medical Supplies Authority; Kenya Medical Research Institute; county governments; and partners, including United States Pharmacopoeia-PQM+, the Ecumenical Pharmaceutical Network, and USAID.

MTaPS continued to offer technical support to the PPB as part of the TWG on PV and PMS by participating in the dissemination of a PV and PMS work plan, which was developed with assistance from USAID, on December 7, 2021. The PPB disseminated the work plan to the MOH; public health programs; pharmaceutical industry stakeholders (e.g., multinational companies, local manufacturers); and development partners, including USAID. MTaPS offered technical input during the dissemination and affirmed its continued support for regulatory systems strengthening.

Review of EUA and Compassionate Use Authorization guidelines workshop in Mombasa December 14–17, 2021.

MTaPS also engaged the PPB to plan for and hold a workshop December 14–17, 2021, to review the Guidelines for Emergency Use Authorization (EUA) and Compassionate Use Authorization of Health Products and Technologies in Kenya using separate COVID-19 funding. These guidelines are important to the PPB as it seeks to regulate the introduction of new experimental health products and technologies to address public emergencies, including COVID-19 products and other technologies. This engagement began with co-development meetings between MTaPS and the PPB on the need to update the guidelines and subsequent follow-up activities. The engagement culminated in a workshop to review these guidelines.

Dr. Ndinda Kusu, CPD, MTaPS Kenya, highlighting the system strengthening approach employed by MTaPS to the PPB team during the review of the EUA guidelines (Photo credit: Dr. Elias Onyango, MTaPS)

The PPB and MTaPS teams during the review of EUA guidelines (Photo credit: Dr. Elias Onyango, MTaPS)

IGAD/EAC Activity 2.1.2: Support local manufacturers in the IGAD/EAC regions to better comply with regional and national pharmaceutical regulatory standards and requirements

Sub-activity 2.1.2e: Support an IGAD-led regional local manufacturers stakeholders' forum/conference to enhance adherence to good regulatory and pharmacovigilance practices and requirements

MTaPS continually engaged the IGAD Secretariat to plan for a regional stakeholder forum for local manufacturers. Planning and coordination meetings with the Secretariat and PQM+ were held October 28 and November 1, 2021, to review the process as well as the program and agenda for the meeting.

MTaPS participated in the IGAD-led Pharmaceutical Manufacturing Conference November 3–4, 2021; presented on the support for local manufacturers in the IGAD and EAC regions; and highlighted findings from the baseline assessment on the regulatory compliance capacities of local manufacturers. Additionally, MTaPS was able to educate participants on the importance of PV and safety monitoring, specifically the requirements for and importance of a functional PV system in the industry.

MTaPS continues to engage industry stakeholders on the need for capacity building on PV and safety monitoring. MTaPS is working with Kenya's Dawa Pharmaceuticals to offer technical assistance aimed at capacity building of local manufacturers on adherence to good regulatory practices and PV.

IGAD Activity 2.2.1: Support PV activities along IGAD cross-border points to promote patient safety

No activities were held this quarter.

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

IGAD/EAC Activity 3.1.1: Strengthen and harmonize PV processes and tools in IGAD and EAC regions and support uptake by border sites and regional stakeholders

MTaPS continued to engage the IGAD secretariat to follow up on the implementation timelines for activities, including the development of a costed work plan and in-service PV training curriculum for health care workers. Meetings were held on October 7 and December 20, 2021, to discuss and review activity implementation with a focus on the roadmap to develop a harmonized PV training curriculum. The curriculum will be used to conduct trainings for regional trainers of trainers.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Support IGAD in establishing and operationalizing governance structures for PV • Support quarterly meetings of the PV EWG • Support the development of a costed work plan and monitoring and evaluation plan for IGAD	Jan-Mar 2022
Build capacity of selected NMRAs and cross-border sites in IGAD and EAC to analyze and use PV data for regulatory decision making • Support PPB to build capacity of the PV expert review and advisory committee to review and analyze safety data for regulatory decision making	Jan-Mar 2022
Support local manufacturers in the IGAD/EAC regions to better comply with regional and national pharmaceutical regulatory standards and requirements • Set up one or more regulatory compliance working groups with local pharmaceutical manufacturers in the IGAD/EAC regions • Engage the local pharmaceutical industry to improve its participation in PV activities	Jan-Mar 2022
Strengthen and harmonize PV processes and tools in the IGAD and EAC regions and support uptake by border sites and regional stakeholders • Support the development of a harmonized PV in-service training curriculum • Train regional and cross-border trainers of trainers on PV • Develop, adapt, and disseminate harmonized PV guidelines/compendium/curriculum	Jan-Mar 2022

PROGRESS BY COUNTRY

BANGLADESH - QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

MTaPS is committed to strengthening partner collaboration with the UNFPA, UNICEF, and MaMoni project of Save the Children in scaling up the DGHS eLMIS for priority MNCH medicines. This quarter, MTaPS provided technical assistance to UNFPA to organize a TOT on the DGHS eLMIS in six districts and cascade training in four sub-districts of Bagerhat district. A total of 199 participants (57 female and 142 male) attended the training. MTaPS facilitated the sessions on basic logistics management and demonstrated how to enter the monthly MNCH medicine data using the eLMIS system. Moving forward, MNCH medicine stock and consumption data of five additional districts will be available in the portal for decision making. National and district level health managers are using the system for program monitoring, planning, and procurement purposes.

MTaPS provided technical support for the modification of SOPs, including the roles and responsibilities of a few selected positions directly working in the store management. The CMSD organized a workshop on SOPs for storage of the CMSD. Based on these SOPs, MTaPs presented practices in the different components of the CMSD during the workshop. MTaPS is also developing an inventory management system as part of CMSD store automation. These Q2 meetings on the automation of CMSD store management were held and an architectural design on the proposed automation was presented. CMSD officials provided their feedback, which will be incorporated during system development. MTaPS is supporting the coordination between the CMSD and IT vendors. MTaPS also provides technical assistance to CMSD in finalizing the workflow of each individual and section related to the automation. The introduction of the automated inventory management system at CMSD stores will contribute to timely reporting with quality data on the stock, receives, distribution, and pipeline, which will be helpful for the managers to make decisions.

The DGFP organized a workshop on supply chain management and logistics management for all district and sub-district managers at Khulna division. MTaPS shared findings on the declining consumption trend of major contraceptives for the last seven years. If the declining trend continues, the procured contraceptives can be overstocked and might expire. The Secretary and DG acknowledged these findings and showed concern. The Secretary instructed all participants to increase monitoring and supervision in the field and take necessary action to improve the performance of FP field workers. Out of the 92 participants, nine were female and 83 were male. MTaPS shared a few other interventions that have been valued and will be implemented in program year 4, as follows:

- Interoperability between electronic management information system and eLMIS
- Transition of offline inventory management tools to online tools

- Introduction of e-learning courses on logistics and procurement

The Secretary and DG appreciated the above initiatives and expressed their gratitude to USAID and MTaPS for their continuous technical assistance for strengthening the existing system by building capacity of DGFP officials who will collaborate to strengthen program monitoring and planning.

The DG of FP delivers her speech. (Photo credit: Abu Shah Jamal)

DGFP, UNFPA, and MTaPS jointly organized two review workshops with the warehouse in-charge and district and sub-district managers for troubleshooting and follow-up on stock management of Misoprostol, MgSO4, Oxytocin, and other maternal and child health drugs and FP commodities based on the eLMIS and MIS in Gazipur and Tangail districts. A total of 81 participants (68 male and 13 female) participated in the workshops. MTaPS facilitated the technical session on distribution policy of Misoprostol, MgSO4, and other FP commodities and how to analyze the stock status and consumption trend. A demo on the DGFP eLMIS was conducted to assess the medicine stock situation with focus on the lower consumption of Oral Pill 3rd Gen and injectables, possible expiration of Misoprostol, and re-adjustment of stock among the service delivery points. The participants were requested to strengthen the monitoring system and conduct periodic physical inventory and cross-validate service data with logistics data.

The DG of DGFP instructed all managers of Tangail and Gazipur districts to carry on regular data analysis and practice making decisions based on the data.

The MOHFW organized a high-level workshop to review the implementation status of the eAMS and the way forward. MTaPS facilitated the technical sessions to inform the participants on the current status and challenges of eAMS implementation. The senior Secretary of the MOHFW instructed the DGHS high officials to take the necessary measures to complete the data entry by the health facilities as quickly as possible and to organize a follow-up meeting to assess progress and identify next steps.

With technical assistance from MTaPS, MOHFW organized orientation sessions on the eAMS. The objective was to orient hospital managers on eAMS importance, its functionalities, how they can make effective use of this system, how data can be used for decision making, and the role of the relevant stakeholders (i.e., data entry operator, data manager, and the supervisors). MTaPS facilitated the technical sessions on system functionality and data use for decision making. A total of 54 district

hospital managers out of 62 attended the workshop. The hospital managers showed interest in efficiently and effectively implementing the system in their facilities. The eAMS is helping to track medical equipment and their functional statuses from procurement to decommissioning (i.e., the life cycle of equipment can be tracked through this system, which is contributing to better health facility management as well as asset management, and ultimately contributes to better health care services).

With the technical assistance from MTaPS, the NTP completed quantification of first- and second-line TB medicines and submitted the order for the second-line medicines to the GDF and the GF considering the lower rate of DR-TB case detection and trend analysis. This will ensure optimum procurement planning and minimize the likelihood of overstocking. During the quantification exercise, the use of pediatric DR-TB formulations was analyzed in coordination with the clinicians at the DR-TB treatment centers. Consumption of different preparations of medicines, including many dispersible formulations (requiring more water for the dispersion), and nausea/vomiting were some of the reasons that have limited the use of pediatric presentations. NTP is considering ordering limited dosage and formulations of pediatric DR-TB medicines for the next year.

Findings of the peripheral TB storage assessment completed last quarter were shared with key stakeholders and a transition plan to integrate the storage into the government system was developed. The report will be finalized early next quarter. It is expected that the recommendation and the transition plan will help NTP and implementing partners effectively transition the storage system to government premises and ensure the sustainable availability of TB medicines at the peripheral level.

Given that the implementation of the procurement functions of DGHS has diversified from one entity of CMSD to multiple procuring entities, MTaPS facilitated a high-level training program on public procurement for DGHS and MOHFW senior officials aiming to improve the procurement efficiency of the entities. The former Secretary of Health and former DG facilitated the training that covered procurement planning, procurement process, contract management, and the public procurement rules and acts. The activity intended to improve the efficiency of DGHS managers to perform the procurement as well as the oversight functions, thereby ensuring cost-effective quality procurement and availability of lifesaving health commodities.

DGHS organized a committee workshop for updating the list of MSR to discuss the challenges of assigning prices to the updated items. Decisions were based on various strategic options, including addressing only the most common items in the groups of instruments and consumables; the DGHS finance unit examining the prevailing list on the DGHS website to identify capital items for exclusion from the list of MSR; MTaPS assisting the subject matter experts of the committee in the process of item price collection; and the committee reviewing and discussing the prices for finalization and notification. MTaPS will follow up on decisions implementation in the next quarter. The activity will contribute to the DGHS national and subnational procuring entities in planning and processing the procurement more cost-effectively.

OBJECTIVE 2: PHARMACEUTICAL REGULATORY SYSTEMS STRENGTHENED

MTaPS attended several meetings with DGDA and WHO experts, in which the CAPA plans of the recent WHO assessment were discussed and the feedback was addressed to finalize the CAPA plan in

marketing authorization, licensing establishment, regulatory inspection, PV, and QMS. The efforts made will increase scores towards attaining maturity level 3 of DGDA.

QMS was identified as one of the major challenging areas of DGDA as a regulator by WHO assessors during the GBT assessment held in July 2021. MTaPS assisted DGDA in drafting a roadmap for the QMS implementation plan in line with WHO guidelines and the latest manual for the National Regulatory Authority. The QMS implementation plan is going through a further DGDA review process. The approach will help establish an effective QMS and increase the score in the GBT for DGDA.

MTaPS assisted DGDA in addressing observations related to PV function in the recent WHO assessment towards attaining maturity level 3. The support included development of a master plan for meetings, an awareness program and visit with a monthly plan, formation of a working committee, facilitation of a meeting to update national PV guidelines and staff roles and responsibilities, review of the DGDA organization chart to fit a PV department and drafting the PV risk communication procedure. All these actions will contribute to increasing the scores towards attaining maturity level 3 for PV function at DGDA.

With Asia Bureau support, MTaPS facilitated a workshop on evaluation of common technical document dossiers focusing on vaccines for assessors of the DGDA. The workshop was inaugurated by the DG of DGDA, and 16 participants attended. The training was very interactive with several group discussions and presentations. As DGDA has been recently involved in vaccine evaluation, mostly with the COVID-19 vaccines, and striving to achieve maturity level 3 as per WHO GBT, the training was timely and gave confidence to the participants. The skills gained might be reflected in the future evaluation of dossiers to ensure good review practice in terms of quality, safety, and efficacy of vaccines. In addition, MTaPS started developing a competency framework of DGDA using a tool developed by WHO with the objective of supporting capacity building and professional development of regulatory staff. The results from the assessment will be used to further define and map specific capacity building needs and activities, such as training of regulatory personnel.

Training on dossier evaluation for vaccines. (Photo credit: DGDA)

OBJECTIVE 3: SYSTEMS FOR EVIDENCE-BASED DECISION MAKING INSTITUTIONALIZED

MTaPS organized a meeting with USAID to discuss the systems and tools developed by MTaPS (i.e., e-TB Manager, eAMS, DGHS eLMIS for MNCH commodities, COVID-19 eLMIS, DGHS eLMIS for TB, DGFP eLMIS, and supply chain management portal [SCMP]). Prior to the meeting, there were some misunderstandings during other stakeholder meetings concerning the capabilities/functionalities of the systems and tools that required additional clarification. Better understanding of these products leaves more time in the stakeholder meetings to discuss health outcomes and focus on the impact of the systems and tools.

On November 10, 2021, MTaPS met with the IT vendor to discuss the upcoming eLMIS UAT and with stakeholders for orientation on the eLMIS. The system is ready to be tested for management of TB commodities. Once the UAT is complete and the user feedback is incorporated, MTaPS will roll out the eLMIS for TB commodities as planned in program year 4. The system is expected to track the stock level, and promptly identify stock disruption (e.g., overstock and stockout) at the directly observed therapy points to ensure optimum use of the TB commodities.

MTaPS conducted an eLMIS workshop for the NTP stakeholders, NTP officials, and MIS officials. The objective was to orient the NTP and MIS decision makers and primary data entry users on the eLMIS and gather their feedback. The overall impression was very good, with active participation and constructive feedback. MTaPS is addressing the feedback and preparing for a UAT next quarter. Once the UAT is completed and the findings are addressed, MTaPS will pilot the system. Based on the results of the pilot, MTaPS will roll out the system to 250+ NTP sites in program year 4. The system will contribute to reducing the stockout of TB commodities, enabling effective procurement plans to ensure sustainable availability of products to the population and better TB health care service.

The MOHFW Climate Change Health Promotion Unit (CCHPU) organized a training on climate-related health risk commodities supply chain and eLMIS at Patuakhali district. MTaPS facilitated the session on the basic logistics management and eLMIS. A total of 15 (4 female and 11 male) participants from district hospitals and two Upazila Health Complexes attended. MTaPS will continue the collaboration with CCHPU to provide technical assistance for enhancement of the eLMIS by capturing data on climate change-related health risk commodities and all other logistics, data visualization, and analysis.

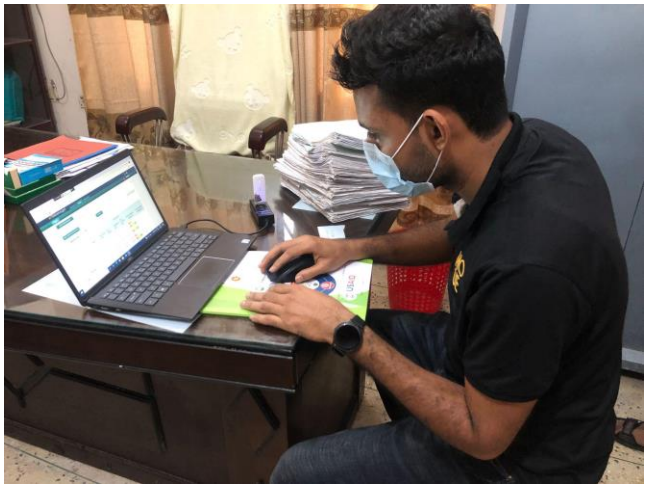
MTaPS met with USAID's TB team to demonstrate the e-TB Manager and its interoperability with the Janao App. A team from Alliance for Combating Tuberculosis was also present to demonstrate the functionality of the Janao App. The demonstration was followed by a detailed discussion with the USAID TB team on how e-TB Manager and the interoperability between e-TB Manager and Janao App improved the recording and reporting of individual TB patients. These two systems helped to reduce missing cases among those who visit private practitioners for TB care, thus increasing the overall TB case notification.

MTaPS organized an orientation workshop on electronic systems for e-health and health information systems. There was a short presentation followed by a detailed demonstration of the eLMIS, SCMP, eAMS, and e-TB Manager. The orientation allowed MIS employees to have a common understanding of the tools. The MIS director and senior system analyst emphasized the need to roll out these tools

countrywide with assistance from the MIS unit. MTaPS agreed to provide the necessary technical assistance to the MIS unit to scale up these electronic tools. Once the tools are rolled out countrywide and used as intended, they can contribute to optimized resource procurement, distribution, and usage and ultimately contribute to a better health care system in Bangladesh.

MTaPS participated in a stakeholders' workshop organized by the NTP to develop and update the SOP for active TB drug safety monitoring and management (aDSM). The activity will contribute to better implementation of the aDSM in the country to ensure more patient safety.

With MTaPS facilitation, NTP organized refresher training on e-TB Manager in Barishal and Mymensingh divisions for the TB leprosy control assistants (TLCAs) of NTP and representatives from the implementing partners supporting data entry and reporting. A total of 233 trainees (170 male and 63 female) participated in the refresher. Representatives from the NTP central office and the respective divisional and district health managers addressed the participants. The activity will contribute to improving the quality and timely reporting of TB cases for better programmatic management of TB.



A TLCA using e-TB Manager after receiving refresher training at a TB site. (Photo credit: Mst. Farhana Akter, MTaPS)

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

The result areas under this objective are being implemented using GHSA funds and described in that section accordingly.

OBJECTIVE 5: PHARMACEUTICAL FINANCIAL RESOURCE ALLOCATION AND USE OPTIMIZED

MTaPS organized a consultative workshop on "pharmaceutical expenditure tracking focusing on MNCH" with the MOHFW HEU and was attended by the concerned representatives of WHO and the Quality

Improvement Secretariat (QIS). HEU DG opened the workshop with the commitment of working with MTaPS for the pharmaceutical tracking of the commodity under discussion. It was followed by a presentation by MTaPS partner R4D on the expenditure tracking principles, processes, and expected results/impact. The workshop discussed the scope, necessity, and possible mode of implementation of the activity on pharmaceutical expenditure tracking and emphasized the collaboration among MTaPS, HEU, and WHO for its implementation.

After the capacity building on the OHT conducted in the previous quarter, MTaPS is discussing with HEU the possible implementation of the costing tool to plan and cost the country's pharmaceutical benefits package as part of overall national health-sector strategic planning. MTaPS has received positive preliminary feedback from the HEU in favor of the exercise with emphasis on further discussion of the subject.

Lessons learned and experiences gathered by the HEU with these exercises will help expand to other types of commodities of public health importance in the next year. The activity will help the country to implement the pharmaceutical-related components of the National Health Care Financing Strategy (2012–2032).

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

With technical support from MTaPS, the CDC of DGHS updated the existing structure, membership, and the TOR for the national steering committee, NTC, and core working group (CWG) and incorporated them into the NSP and NAP for ARC (2021–2026). The DGHS CDC will share the updated NSP and NAP for ARC with the NTC for effective use.

A four-corners virtual meeting among MTaPS, Fleming Fund Country Grant, CAPTURA, and DGHS CDC was held to discuss the joint establishment of a publicly available web-based platform for dissemination of AMR information, data, and other materials with the support of MTaPS and under the leadership of DGHS CDC. CAPTURA drafted and shared a template/outline of a separate integrated web-based portal for ARC program for knowledge-sharing and exchanging information on IPC, any kind of research activities on AMR, AMR newsletter, AMS, and laboratory-based AMR surveillance where different stakeholders would have controlled access. MTaPS, Fleming Fund, and CAPTURA came to a consensus to start the process of developing the common web-based platform under the leadership of DGHS CDC. The web-based platform is in the final stage of development and will contribute to increased sharing of information among stakeholders.

Rally of the WAAW 2021. (Photo credit: Dhaka Tribune)

MTaPS collaborated with the WHO Foreign, Commonwealth, and Development Office; Better Health in Bangladesh project; and Fleming Fund to facilitate the observance of WAAW. CDC, DGDA, and other government stakeholders such as the Department of Fisheries; Department of Livestock Services; IEDCR; Bangladesh Association of Pharmaceutical Industries; BCDS; Bangladesh Medical and Dental Council; Bangabandhu Sheikh Mujib Medical University; Evercare Hospital; North South University; WHO; and icddr,b participated in different activities to observe the week. The observance included advocacy workshops, rallies, and roundtable discussions. The events were attended by senior government officials including the Honorable Minister of the MOHFW, DGs of different directorates of human and animal health, eminent dignitaries, hospital administrators, and journalists representing electronic and print media. The advocacy emphasized the AMR stewardship highlighting public-private partnerships and clinical engagement for strengthening ARC, status of the ARC program, achievement, and ways forward in AMR surveillance in human and animal health sectors from both government and private laboratories.

MTaPS held a meeting with the infectious disease lead of the USAID Office of Population, Health, Nutrition, and Education (OPHNE) to update the status of activities being implemented under the GHSA portfolio. MTaPS also attended a virtual meeting with the FAO, Global Health Specialist, USAID OPHNE, USAID Mission Bangladesh, and a representative of USAID Washington to discuss the country's AMR activities. These meetings helped the different stakeholders of AMR to understand each other's scope and responsibilities for a more collaborative implementation.

RESULT AREA 2: INFECTION PREVENTION CONTROL

A workshop on lessons learned from the IPC assessment and implementation was attended by 19 (8 female and 11 male) representatives from DGHS; CDC/DGHS; IEDCR; Cumilla Medical College Hospital (COMCH); Shaheed Ziaur Rahman Medical College Hospital; Bogura; Bangladesh Medical College Hospital; Holy Family Red Crescent Medical College Hospital; icddr,b; US CDC, and MTaPS. The additional DG (administration) of DGHS chaired the meeting and the COMCH resident medical

officer/member secretary of the IPC committee presented the MTaPS-supported assessment findings (baseline and repeat) and the list of interventions to implement the IPC program at the COMCH. The following lessons learned were shared:

- Leadership in collaboration with CDC/DGHS is needed at the facilities so that hospital administration can prioritize IPC and AMS.
- Staff capacity building activities and supervision are lacking because of resource and logistics gaps.
- Regular IPC monitoring and feedback are being impacted by the overburn of COVID-19 patients at the hospitals.
- Behavior changes for controlling the spread of pathogens (e.g., cough etiquette and respiratory hygiene) and controlling visitors can further strengthen IPC activities.

The workshop emphasized prioritization of activities, implementation, and collaboration among stakeholders to work through coordinated mechanisms on IPC under the leadership of DGHS CDC.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

All feedback from the consultative workshop held in the last quarter for finalization of the STGs on common infectious diseases was incorporated and shared with CDC and DGHS for final endorsement. The development of the app version for the STGs in accordance with the guideline progressed in parallel and is in the final stage.

MTaPS facilitated issuance of a notification from the MOHFW QIS to COMCH to establish the AMS committee and to develop an AMS implementation plan. It was followed by a workshop organized by the COMCH for the implementation of AMS at the facility. The workshop constituted a committee with TORs and developed a time-bound plan to implement the same. This is a relevant step towards stewardship of AMR at the facility level and will accelerate the implementation of AMS activities in the hospital.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Field Support	
Activity 1.1.1: Update the price guide of medical equipment and align with the revised table of organization equipment (carried over from year 3)	Jan-Mar 2022
Activity 1.1.2: Map the organizational and governance structure of DGHS procurement functions (new)	Jan-Mar 2022
Activity 1.2.1: Continue to enhance the capacity of national- and sub-national-level managers to use data for decision making and compliance with monitoring the functionality of existing systems	Feb-Mar 2022
Activity 1.2.2: Assist DGFP in developing a mechanism on the service and logistics data validation process	Feb 2022

Activity and Description	Date
Activity 1.3.1: Assist NTP in progressing towards sustainability of quantification and early warning systems	Jan-Feb 2022
Activity 1.3.2: Strengthen the capacity of DGHS decision makers and health facility staff to use eAMS at selected districts	Feb-Mar 2022
Activity 2.1.1: Continue assisting DGDA to address and implement the WHO observations/Institutional Development Plan towards attaining maturity level 3 as per GBT	Jan-Mar 2022
Activity 2.1.2: Review existing strategic plan and the priority of DGDA to identify potential inclusions and prepare a draft	Feb-Mar 2022
Activity 2.2.1: Continue to support the assessment of adverse drug reactions (ADRs), introduce aDSM assessment as a member of the ADR monitoring cell, and facilitate expert committee meetings for evaluation	Jan-Feb 2022
Activity 2.2.2: Prepare SOW and engage an IT firm for strengthening existing online ADR reporting and monitoring system of DGDA	Jan-Mar 2022
Activity 2.2.4: Drafting of the national PV guidelines through periodic review of the existing ones by the recently formed working committee	Jan-Mar 2022
Activity 3.1.1: Enhancement and scaling up eLMIS previously developed for TB commodities in DGHS	Mar 2022
Activity 3.1.3: Customize and implement Pharmadex version 2 for vaccines registration in DGDA	Feb-Mar 2022
Activity 3.2.1: Enhancement and maintenance of e-TB Manager through national technology partner	Mar 2022
Activity 3.2.3: Collaborate with development partners, donors, and DGHS to update the priority MNCH live-saving commodities and incorporate to DHIS 2 as well as SCMP	Feb-Mar 2022
Activity 5.1.1: Continue to support the HEU to conduct pharmaceutical expenditure tracking for selected commodities other than MNCH	Jan-Mar 2022
GHSA	
1.1.1: Continue to support governance, functionality, and implementation capacity of the national multisectoral coordination mechanisms • One NTC CWG meeting will be held in collaboration with CDC, DGHS • Draft costed operational plan for the NAP-AMR 2021–2026	Mar 2022
2.5.1: Continue to strengthen IPC activities in the four current participating facilities, scale up similar initiatives to six additional facilities • Report preparation on IPCAF assessments in the participating hospitals • Reports preparation on IPC committees established in the participating hospitals	Mar 2022
3.1.1: Strengthen AMS governance structures at the national level • Report preparation on rapid assessment of stewardship policies, regulations, and practices conducted in the human and animal health sectors	Mar 2022

BURKINA FASO - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULTS AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1.1.1: Support the Technical Secretariat (TS) of the One Health Platform (TS-OHP)

In October 2021, the MTaPS Burkina Faso team met with the TS-OHP to express the need to proceed with the planned induction workshop for the TTCs. The goal of this workshop is to create an environment that would enable the TTCs' presidents and vice presidents to develop governance tools even though the Ministerial Order establishing the TTCs has not yet been signed. MTaPS and the TS-OHP ultimately decided to proceed with the induction workshop, which took place November 17–19, 2021, in Ziniaré. The purpose of this activity was to brief the presidents and vice presidents and enable them to develop TOR, SOPs, and rules and regulations for the functioning of their respective TTCs. The following actions took place during the workshop:

- Presented updates on the establishment of the TTCs of the OHP
- Briefed the presidents and vice presidents of the TTCs on their respective roles and responsibilities
- Developed roles and responsibilities of the presidents and vice presidents of the TTCs
- Developed SOPs and defined the rules and regulations of the TTCs of the OHP

MTaPS is supporting the ongoing review of the multisectoral action plan to control AMR, which has taken place in two phases:

- An assessment of the national multisectoral action plan to control AMR during a workshop April 21–23, 2021
- The review of the plan itself through two workshops in September and October 2021

RESULTS AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.2.2: Support the General Directorate of Veterinary Services (DGSV) to print and disseminate guidelines for the rational use of antibiotics in the animal sector

To prepare for the printing and dissemination of 500 copies of Burkina Faso's national AMS guidelines for the animal health sector, MTaPS shared the guidelines with the DGSV for final comments and the addition of a signed foreword written by the Minister. However, this process is still pending due to schedule conflicts on the part of the DGSV.

Activity 3.5.1: Support implementation of DTCs in five additional hospitals

The MTaPS team combined the establishment and training of DTCs when implementing this activity. During the first quarter of FY22, MTaPS, in collaboration with the Directorate of Hospital Pharmacy

(DPH), decided to focus on the CHR of Koudougou and the University Hospital Center (CHU) Sanou Souro of Bobo-Dioulasso for the combined establishment and training of DTCs. MTaPS carried out this activity November 15–19, 2021, at the CHR of Koudougou, and December 13–17, 2021 at the CHU Sanou Souro of Bobo-Dioulasso. Now that the initial establishment and training has been completed, MTaPS plans to support these DTCs, as well as those previously established and trained, to improve their AMS practices. Thirty health care professionals (18 female, 12 male) participated in the DTC training for the CHR of Koudougou, and 35 health care professionals (3 female, 32 male) participated in the DTC training at the Sanou Souro Hospital of Bobo-Dioulasso. The trainings included the following subject areas:

- The necessity of establishing DTCs in hospitals
- The mission, roles and responsibilities, organization, and functions of a DTC in accordance with the guidelines of the DPH
- An overview of AMR, the burden of infectious diseases, and the misuse of antibiotics in relation to AMR
- An overview of AMS in LMICs, including the definition of AMS and key interventions to slow AMR, such as IPC, immunization, waste management, sanitization, and the rational use of antimicrobials
- A discussion on the WHO AWaRe categorization of antibiotics and its application in AMS
- The development of a draft AMS action plan for the hospital

MISSION FUNDED ACTIVITIES

PHARMACOVIGILANCE

In October 2021, the medication Pyramax was officially adopted by Burkina Faso for the treatment of malaria. After this adoption, MTaPS held a meeting with the focal points of the NMRA and NMCP to discuss next steps, including the development of an official act to appoint members of the coordination or steering committee of the Pyramax PV active surveillance activity. This act will serve as an administrative contract for all necessary authorizations and administrative support. MTaPS worked with the DSIS to enable the installation of PViMS for use as the study tool. The MTaPS team reviewed the PV work plan during a meeting on December 13, 2021, to consider the procurement of Pyramax for two regions (Cascades and Sud-Ouest) due to news that Pyramax may first be made available there before being procured for use nationwide. MTaPS also sent an email to the NMCP, NMRA, and DSIS to arrange a presentation/demonstration of PViMS and the possibility of installing it on the DSIS platform. The agreement of all stakeholders will lay the foundation for the installation process and the use of PViMS for the study. MTaPS is currently awaiting a response from stakeholders.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1 Task 2: Validate the reviewed national multisectoral action plan for AMR control	Feb 2022
Activity 1.1.1 Task 3: Sign the Ministerial Order, which is still pending	Mar 2022
Activity 3.2.2a: Print the national guidelines, which will include the OIE categorization for antibiotics to promote the appropriate use of these antimicrobials	Feb 2022
Activity 3.2.2b: Disseminate the national guidelines, which will include the OIE categorization for antibiotics to promote the appropriate use of these antimicrobials	Mar 2022
Activity 3.5.1: Train the established DTCs in health care facilities and support them to carry out their respective action plans	Jan–Mar 2022

CAMEROON - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

To strengthen the coordination of AMR activities, MTaPS collaborated with other USAID implementing partners to support the national counterparts in the following:

Celebration of the WAAW

On November 11, 2021, MTaPS supported the Technical Secretariat of the AMR Multisectoral Coordination Committee (TS-MSC) to organize a meeting to prepare for the celebration of the WAAW scheduled for December 14-17, 2021. This meeting was held at the National Public Health Laboratory and brought together 25 participants (48% female) from the TS-MSC, relevant ministries of the OHP, and the following implementing partners:

- Ministry of Environment and Nature Protection
- Ministry of Agriculture and Rural Development
- Ministry of Animal Husbandry and Fisheries
- National Veterinary Reference Laboratory
- WHO
- IDDS
- MTaPS

During this meeting, participants reviewed and validated sensitization messages on the materials (flyers, banners, T-shirts, and caps) to be used during WAAW. Participants also agreed on activities to be carried out during the week, including a launching ceremony for WAAW, roundtable discussions, and a sensitization walk. MTaPS supported the TS-MSC to print 300 flyers, 145 T-shirts, and 80 hats. MTaPS also supported the organization of the launching ceremony that took place on December 14, 2021. This ceremony saw the participation of about 200 participants from different sectors of the OHP, the University of Bangangte, technical and financial partners, university students and members of the civil society. During this ceremony, the different sectors of the OHP (MOH, the Ministry of Fisheries and Animal Husbandry, and the Ministry of Environment and Nature Protection) gave presentations on AMR to increase participants' awareness of its devastating effects and the recommended strategies to control this growing threat.

The Deputy Director in charge of drugs at the DPML giving a presentation on AMS during the launching ceremony for WAAW. (Photo credit: MTaPS Cameroon)

Conference of the Society of Cameroonian Microbiologists

MTaPS supported the Society of Cameroonian Microbiologists to strengthen the technical capacity of key government stakeholders and healthcare providers on AMR during a conference of the Society of Cameroonian Microbiologists held from November 25-26, 2021 in Yaoundé. MTaPS paid for the hall rental during the event days and supported the printing of two banners. MTaPS also gave a presentation on AMR at the conference, focusing on MTaPS' efforts to foster the fight against AMR. MTaPS used this presentation as an opportunity to inform participants of the IPC and AMS e-learning courses previously developed with MTaPS support and shared the link so participants could access the courses.

The MTaPS Cameroon Country Project Director giving a presentation during the Conference of Microbiologists. (Photo credit: MTaPS Cameroon)

Participation in a workshop to develop a national One Health strategic plan

In 2012, Cameroon developed a national One Health strategic policy document showing the commitment of the human, animal, and environmental sectors to jointly manage public health threats while following the One Health approach. To operationalize this document, the NPPFERZ, which is the focal point for the OHP, organized a three-day workshop from October 20-22, 2021, bringing together all relevant stakeholders from the different sectors, as well as technical and financial partners, to draft a three-year (2022-2025) national One Health strategic plan for Cameroon. This plan will include specific activities, a budget, and a M&E framework. During this meeting, participants carried out a SWOT analysis of all 22 action areas of the OHP. For this, four groups were created, and each group was assigned to assess all 22 action areas. MTaPS actively contributed to assessing four action packages, namely: MR, national laboratory system, emergency preparedness, and coordination, communication, and promotion of One Health approach action packages. Following the SWOT analysis, participants identified priority activities and consolidated a draft plan. NPPFERZ will organize a second workshop in January to finalize the identification of priority activities and develop a budget and a M&E framework.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.1.1: Support the printing and dissemination of IPC guidelines and standards for the human sector

MTaPS had previously supported the MOH to draft (June 16-19, 2020) and validate (August 24-28, 2020) the national guidelines for IPC. In December 2021, the MOH officially endorsed the national IPC guidelines. The DPS has shared the final version of the national IPC guidelines in both English and French with MTaPS. MTaPS plans to support the printing of 500 copies of the guidelines, which will be disseminated at a workshop in January 2022.

Activity 2.1.2: Support the drafting of the national IPC action plan

In September and October 2021, MTaPS supported the DPS to develop the first draft of Cameroon's national IPC action plan. From November 23-26, 2021, MTaPS then supported the DPS to organize a four-day workshop for 26 participants (42.3% women) to review the draft national IPC action plan. Participants were from different technical departments of the MOH, other relevant Ministries (the Ministry of Fisheries and Animal Husbandry and the Ministry of Environment and Nature Protection), and implementing partners (UNICEF, US CDC-Atlanta, IFRC. This was followed by a review of the budget, and then a review of the M&E framework. The DPS subsequently shared the updated national IPC action plan with participants in advance of a validation workshop that MTaPS plans to support in January 2022.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.5.1: Support the establishment of effective and functional drug and therapeutics committees in 12 selected health facilities

During FY21, MTaPS supported the DPML to establish functional DTCs in 11 health facilities. During this quarter, MTaPS supported the DPML to carry out the onsite training of members of one additional

DTC at the Nkongsamba regional hospital. A total of 17 health personnel were trained in this health facility with females representing 47% (8) of the persons trained. These staff were physicians (5), pharmacists (2), and nurses (10). One facilitator from the central level (DPML) facilitated the training, along with the Regional Pharmacy Focal person from the Littoral Delegation of Public Health, and the DTC champion from the health facility.

As part of the CQI approach, MTaPS supported the health facility to develop an AMS action plan and to select process and result indicators to monitor implementation.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
MTaPS will support the TS-MSC to organize meetings to coordinate the updating of the AMR NAP.	Jan-Mar 2022
MTaPS will support the TS-MSC to evaluate the existing AMRNAP. MTaPS will thereafter support the organization of a five-day workshop to update the AMR NAP.	Jan-Mar 2022
MTaPS will support the DPS in printing 500 copies of the IPC guidelines. MTaPS will thereafter support the DPS in organizing a three-day workshop to disseminate the guidelines.	Jan-Mar 2022
MTaPS will support the DPS to organize a two-day workshop to finalize and validate the IPC action plan.	Jan-Mar 2022
MTaPS will support the DPS and DPML in carrying out field supervision of IPC committees and DTCs in health facilities.	Jan-Mar 2022

CÔTE D'IVOIRE - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON ANTIMICROBIAL RESISTANCE

Activity 1.1.1: Strengthen the functionality of the multisectoral coordination committee by organizing effective coordination through regular meetings of the AMR TWG

Organize effective coordination through regular meetings of the -AMR TWG

MTaPS supported the AMR-TWG in organizing two one-day workshops to finalize the national AMS plan and to review activities implemented during the first quarter of fiscal year 2022. The workshop to finalize the national AMS plan took place on October 12, 2021, with 12 participants. This workshop focused on updating the context, situational analysis, M&E plan, and budget for the AMS plan.

The workshop to review activities implemented between October and December 2021 took place virtually on December 29, 2021. The workshop focused on feedback from the assessments of the DTCs of the polyclinic of Indenie and the CHR) of Divo; the report on the dissemination of AMS communication materials to health facilities and private pharmacies; and feedback on the situational analysis of antimicrobial use and consumption. In addition, members of the AMR-TWG were informed of progress made on the AWaRe categorization of antibiotics. The meeting was also an opportunity for participants to discuss and plan activities for the second quarter of FY2022.

Support the OHP in organizing activities for One Health Day and WAAW

MTaPS supported the AMR-TWG in holding WAAW from November 18-24, 2021. MTaPS organized the WAAW launching ceremony on November 18, 2021. The minister of animal resources and fisheries chaired the launch ceremony, which was structured around the following agenda:

- A presentation on "AMR: the new threat" by Professor Dosso, President of the AMR Multisectoral Coordination Group
- A panel discussion on the theme "Let us raise awareness of and control AMR in the human, animal, and environmental health sectors in the context of COVID-19"; the panel was composed of a pharmacist, veterinarian, environment expert, and civil society representative
- Patient testimony on antibiotic use
- Official launch of the contest for best report/media production on AMR in Côte d'Ivoire; the prize will be awarded during the 2022 WAAW celebration

MTaPS also participated in a sensitization meeting of veterinarians and farmers on the rational use of antimicrobials in Agnibilekro on November 24, 2021.

Activity 1.1.2: Support the AMR TWG in setting up an M&E system to monitor implementation of the NAP-AMR and provide timely feedback

Continue to help the OHP in assessing the performance of the NAPHS, informing the REMAP, completing the SPARS tool, and developing the 2022 NAPHS operational action plan.

MTaPS technically supported a workshop to update the NAPHS capacities performance assessment on November 30, 2021, and on December 3, 2021. MTaPS provided the AMR data used to update the REMAP. The AMR score in the REMAP increased from 40% in 2020 to 53% in 2021.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.1.1: Support the AMR TWG in strengthening the infection prevention and control program at the national and facility levels

Conduct baseline assessments in 10 additional health facilities (regional hospitals of Korhogo, Odienné, Bondoukou, Bouaflé, Divo, Man, San Pedro, and Gagnoa, the Polyclinique International Indenie, and the Clinique Centrale d'Abobo) by using the WHO IPCAF tool

From November 30, 2021, through December 9, 2021, MTaPS supported the AMR-TWG and MTC4, in conducting IPC baseline assessments in four CHRs (San Pedro, Gagnoa, Divo, and Korhogo) by using the WHO IPCAF tool and WHO HH Self-Assessment Tool. Two teams each composed of two regional trainers in IPC (the IPC regional focal point and a master trainer) visited the respective facilities.

The tables below summarize the scores obtained by the four hospitals.

Table 14. IPCAF evaluations

Health facility	Score (/800)	IPC level
CHR San Pedro	317.5	Basic level
CHR Gagnoa	377.5	Basic level
CHR Divo	473	Intermediate level
CHR Korhogo	450	Intermediate level

Table 15. Hand hygiene self-assessments

Health facility	Score (/500)	IPC level
CHR San Pedro	185	Basic level
CHR Gagnoa	212.5	Basic level
CHR Divo	295	Intermediate level
CHR Korhogo	232.5	Basic level

The facilities used the results of the assessments to develop their respective IPC action plans to improve HH practices within facilities, strengthen the education and training of staff in IPC, and initiate the monitoring of health care-associated infections.

Activity 2.2.1: Support the AMR TWG in designing and deploying interactive e-learning courses on AMR/AMS/IPC for health professionals

Support the AMR-TWG in identifying and selecting additional universities to host the AMR course

MTaPS had an online meeting with Africa One Health University Network (AFROHUN) to plan a joint training for university faculty on One Health approaches. This multidisciplinary training, scheduled for January 2022 in Abidjan, will focus on One Health and will include university authorities (deans, heads of departments/units, etc.) involved in public health, animal health, environment, bioscience, the School of Breeding, the Management Center, as well as law, social sciences, etc. The planned format is a cascade training, first to orient the deans, then to train trainers by using both on-line and in person training. The training will use both AMR and IPC modules.

Activity 2.5.1: Strengthen the functionality of IPC committees in the human health sector and the capacity of health care providers to implement IPC

Conduct a rapid situational analysis of IPC committee capacity and functionality in the 10 additional health facilities using the Directorate of Hospital and Proximity Medicine tool

The rapid situational analysis of the capacity and functionality of IPC committees was conducted in conjunction with the IPC baseline assessments using the WHO IPCAF. The score for each facility is summarized in the table below.

Table 16. Capacity and Functionality of IPC Committees

Health facility	Score (/100)	IPC level
CHR San Pedro	53	Intermediate level
CHR Gagnoa	55	Intermediate level
CHR Divo	59	Intermediate level
CHR Korhogo	59	Intermediate level

To strengthen the IPC committees, members were oriented on their roles and responsibilities and were given IPC-related documents. The committees then developed their facility IPC action plans as part of continuous quality improvement of IPC practices.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Support the AMR-TWG in improving the national essential medicines list (NEML) by using WHO antibiotic AWaRe categorization.

MTaPS supported the AMR-TWG in organizing four one-day meetings to analyze the data collected for the AWaRe categorization of antibiotics. The members of the antibiotic categorization experts' group and the resource persons who collected the data attended the meetings to review the data and the related data sources. Out of 2,626 documents consulted, 286 were retained for data collection (9.18%). Participants noted that this was a low percentage and suggested an additional two days of data collection in nine additional facilities/structures to collect more data. They also reviewed the list of publications

collected on PubMed by the two observers to remove duplicates and any data not relevant to the analysis. The data collected will inform the AWaRe categorization of antibiotics workshop planned for January 2022.

Activity 3.1.3: Support the AMR-TWG in establishing SOPs and tools for monitoring antimicrobial use in humans and animals

Conduct a national-level assessment of systems to monitor antimicrobial use and consumption by using a multisectoral approach

MTaPS supported the AMS-TWG in organizing a workshop to assess existing systems used to monitor antimicrobial use and consumption. The workshop took place from November 30-December 1, 2021, with 27 participants. Representatives from MTaPS and the Ivorian Pharmaceutical Regulation Agency gave two presentations on the organization of the fight against AMR in Côte d'Ivoire and on WHO's orientations on integrated AMS activities. Participants then self-administered a questionnaire to assess the existing systems to monitor antimicrobial use and consumption. The assessment highlighted the lack of a national harmonized system for the surveillance of antimicrobial use and consumption. Very few facilities monitor antimicrobial use. Additionally, methods and tools were found to vary between institutions. In conclusion, a platform for routine data collection on antimicrobial use and consumption is needed. Further discussions on antimicrobial use monitoring are needed with the IT directorate and health information department. MTaPS will facilitate organization of a one-day meeting to validate the draft report and draft SOPs for antimicrobial monitoring.

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

Support the AMR TWG in conducting 2-day joint site visits to assess the existence and functionality of DTCs in the 10 facilities

MTaPS supported the AMS-TWG in organizing a two-day joint site visit to evaluate the capacities and functionality of DTCs in one private clinic (Polyclinique Indenie in Abidjan) and one regional hospital (Regional Hospital of Divo). The evaluation revealed:

- The lack of a DTC at the Polyclinic of Indenie, which contributed to the basic level status with a score of 8/55
- The existence of a DTC at the Regional Hospital of Divo; however, AMS activities are not implemented in that facility. The Regional Hospital of Divo is also at the basic level with a score of 24/55.

Both facilities need improvements on AMS practices. The evaluation team recommended the establishment of a DTC at the Polyclinic of Indenie and training on AMS for the DTC members of the two facilities. The AMS-TWG shared the AMS toolkit and other supporting documents with the two DTCs to improve their capacity to oversee AMS activities within their facilities.

Activity 3.5.3: Support the AMR TWG in disseminating communication materials to health facilities and private pharmacies

MTaPS supported the AMS-TWG in disseminating 1,010 posters to the national pharmacists' association for distribution to private pharmacies. Additionally, MTaPS, in collaboration with the AMR-Secretariat and the AMS-TWG, disseminated posters and AMS-related communications materials to 40 health facilities (CHUs, regional hospitals, private clinics, military health services, veterinary health facilities, and directorates of the Ministries of Health, Animal Resources, and the Environment). The AMS-TWG will monitor display of the posters and continue dissemination during field visits to MTaPS-supported facilities that have not received them yet (five regional hospitals, two veterinary clinics, and two private clinics).

EBOLA RESPONSE ACTIVITIES

No activities were held this quarter.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
GHSA	
Support the OHP, through the AMR-TWG, in assessing the performance of the NAPHS: Support a three-day assessment workshop for the REMAP and SPAR to support the AMR Secretariat in updating AMR data	Mar 2022
Take stock of actions in the benchmarking tool and develop and implement an M&E framework for the NAP-AMR: Organize a three-day workshop with the M&E team from the AMR Secretariat and M&E staff from the supported facilities	Mar 2022
Support the AMR-TWG for quarterly monitoring of NAP-AMR indicators at a one-day meeting in Abidjan: Organize one-day workshop in Abidjan	Feb 2002
Conduct baseline assessments in 10 additional health facilities (regional hospitals of Korhogo, Odienné, Bondoukou, Bouaflé, Divo, Man, San Pedro, and Gagnoa, the Polyclinique International Indenie, and the Clinique Centrale d'Abobo) by using the WHO IPCAF tool: Site visits to six health facilities to conduct IPC baseline assessments	Jan-Feb 2022
Conduct onsite competency-based training of frontline HCWs in the 10 additional intervention facilities, including using new guidelines, and sensitize providers on the risks of AMR: Three-day training workshop of health care professionals in 10 hospitals	Feb-Mar 2022
Support the AMR-TWG in identifying and selecting additional universities to host the AMR course: Organize, in collaboration with AFROHUN, five-day TOT for university faculty members on One Health approaches, including AMR	Jan 2022
Support the AMR-TWG in improving the NEML by using WHO antibiotic AWaRe categorization: Organize a three-day workshop to categorize antibiotics on the EML	Jan 2022

Support the AMR-TWG in training DTC members in eight additional health facilities in the human sector: Organize four-day, onsite, competency-based trainings for DTC members in one CHU (Angre)	Jan 2022
Support the AMR-TWG in training DTC members in two health facilities in the animal sector: Organize a two-day, competency-based training for members of the unit that manages veterinary medicines of two veterinary facilities (Centre antirabique of Cocody and veterinary clinic of the regional directorate of MIRAH - Bouake)	Feb 2022
Support the AMR-TWG in conducting two-day joint site visits to assess the existence and functionality of DTCs in the 10 facilities: Organize two-day joint visits in seven human health facilities to evaluate functionality and capacities of DTCs	Jan 2022
Support the AMR-TWG in establishing a pool of trainers, including 10 master trainers and 36 regional trainers: Organize a 5-day training the trainers session for 10 master trainers on AMS	Feb2022
Support the AMR-TWG in establishing a pool of trainers, including 10 master trainers and 36 regional trainers: Organize a 5-day training of regional trainers on AMS	Feb 2022
Support the AMR-TWG in extending the training to DTC members in 10 additional hospitals through a 3-day competency-based training workshop for selected staff from the facilities: Organize 3-day competency-based trainings for DTCs in 10 additional health facilities	Mar Apr 2022

DEMOCRATIC REPUBLIC OF CONGO - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

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

MTaPS supported the DPM and the NC-AMR in holding the quarterly NC-AMR sub-committee meetings. Participants discussed the recommendations made during the previous meetings, including the need to encourage other partners, such as the World Bank/REDISSE project, to support the AMS and IPC subcommittees' interventions. To this end, meeting participants recommended that the DPM collaborate with the REDISSE focal person to appropriately draft and submit a request to include AMR activities in the next year's REDISSE action plan. Meeting participants further discussed the relevance of DTCs in promoting the rational use of medicines at the HF level. Since the establishment of DTCs is not currently mandatory at the HF level, members prepared a technical note regarding the integration of DTCs in hospitals and sent it to the MOH general secretary through the DPM.

MTaPS collaborated with WHO to support the NC-AMR in holding its quarterly multisectoral coordination meeting. The meeting included representatives from MOH, the Ministry of Agriculture, Ministry of Fisheries and Livestock, Ministry of Higher Education, Ministry of the Environment, civil society, corporation of the nurses, pharmacists, and medical doctors. These representatives assessed implementation of the recommendations made during the Q3 2021 meeting. Out of 10 recommendations, three (30%) were completed, three were (30%) in progress, and four (40%) were not implemented. Meeting participants adopted and endorsed the technical note for integrating DTCs into hospitals, which will be sent through the DPM to the secretary general of health for signature. Then, they discussed progress on implementing the NC-AMR sub-committees' action plans. The representatives also presented the first draft of the operational plan to combat AMR, which was developed with MTaPS' technical assistance. FAO will provide funding for implementing this plan. The representatives recommended organizing a workshop to validate the developed operational plan.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

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

MTaPS collaborated with the National Pharmacovigilance Center and DPM to select five health institutions for establishing additional DTCs. To this end, one HF in Kinshasa (Centre Hospitalier Kinkole), two HFs (Cliniques Universitaires Lubumbashi [CUL] and Hôpital Kenya) in Lubumbashi, and two HFs (Mwengeji and Dilala hospitals) in Kolwezi were selected. MTaPS and the National Pharmacovigilance Center prepared for training DTC members at the five selected facilities.

Then, 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 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. This event coincided with WAAW. During the sensitization meeting, MTaPS presented and elaborated on the following topics:

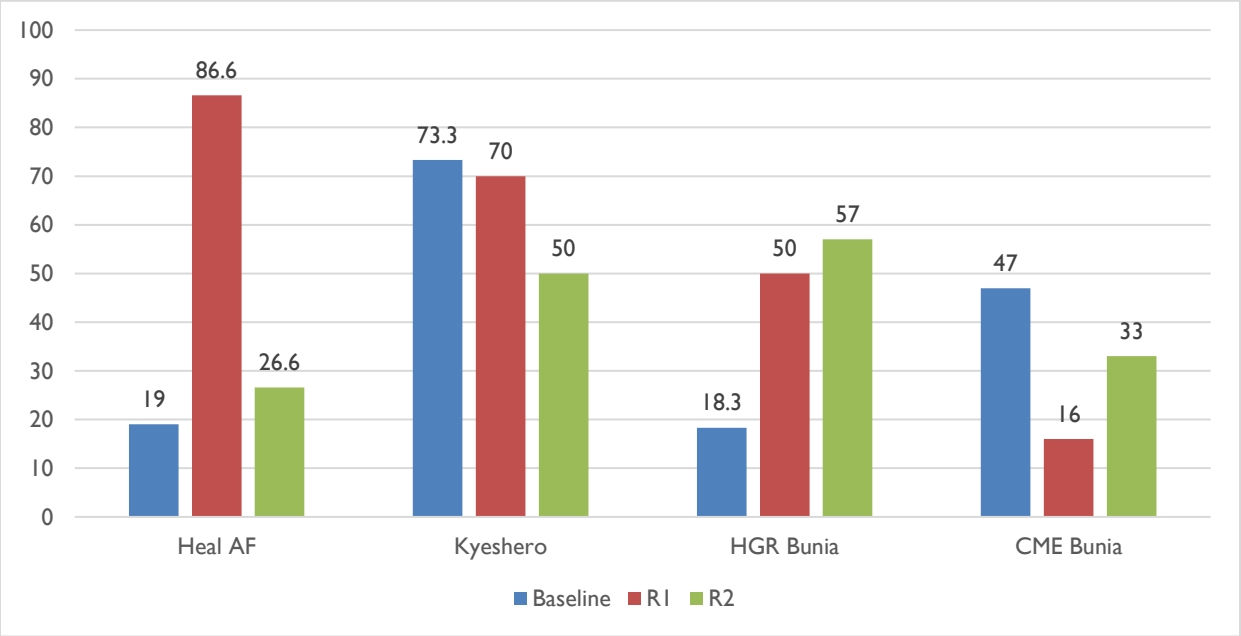
- GHSA program and International Health Regulations - WHO benchmarks
- DRC's JEE scores
- Drug discovery gap: Slow discovery of antimicrobials relative to the faster occurrence of AMR
- WHO AWaRe categorization of antimicrobials

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

In addition, four DTCs (two in Goma and two in Bunia) conducted their second CQI review. Participants assessed medicine-prescribing behaviors and patient knowledge indicators. The assessment revealed the following points:

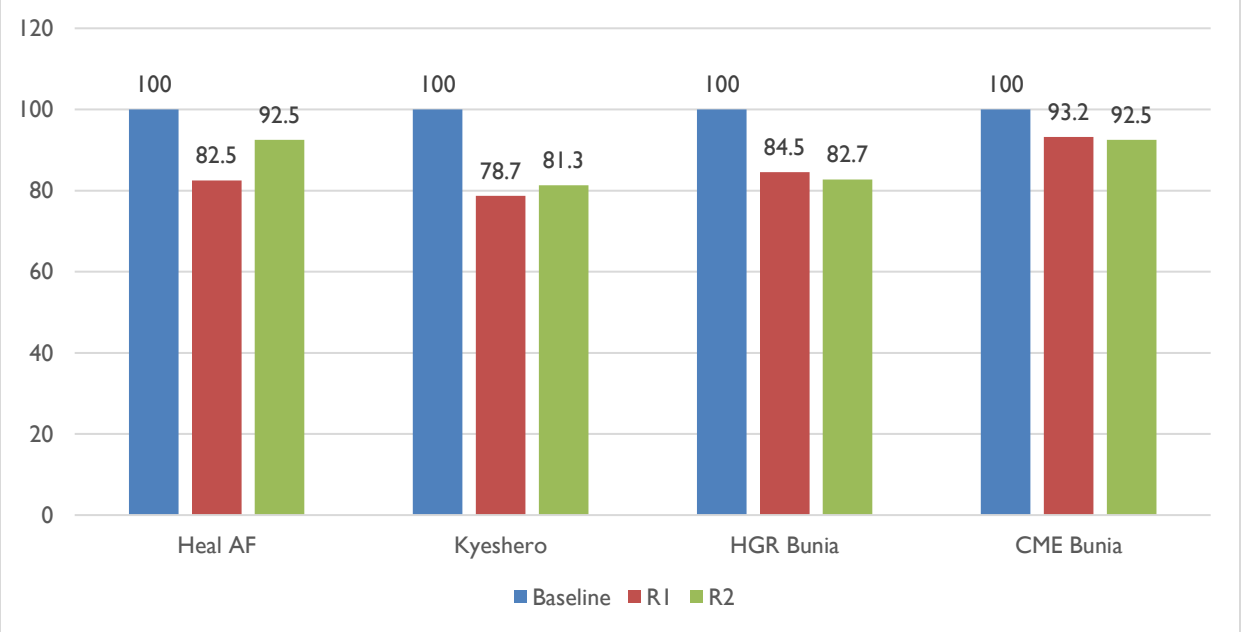
- There was a significant improvement in the rational use of antibiotics (in terms of the percentage of prescriptions with antibiotics) from August 2021 (R1) to December 2021 (R2) in two hospitals: Heal Africa - from 86% (R1) to 26% (R2) and Kyeshero – from 70% (R1) to 50% (R2). However, there was a slight increase in antibiotic misuse at HGR Bunia, from 50% (R1) to 57% (R2) and a significant increase in inappropriate use at CME Bunia, from 16% (R1) to 33% (R2) as shown in figure 3.

Figure 3. Antibiotics prescribing behaviors in USAID/MTaPS supported health institutions



- General patient knowledge (in terms of knowing the routes, doses, frequencies, and duration of the medication prescribed) showed a slight improvement in R2 as compared to R1 at Heal Africa, from 82.5% (R1) to 92.5% (R2) and at Kyeshero, from 78.7% (R1) to 81.3% (R2). However, the situation remained almost the same with a slight change at HGR Bunia – 84.5% (R1) to 82.7% (R2) and at CME Bunia – 93.2% (R1) to 92.5% (R2) as shown in figure 4.

Figure 4. Patients' knowledge of medicines prescribed in USAID/MTaPS supported health institutions



- The average dispensing time at the four facilities is shown in the table below.

Table 17. Average Dispensing Time

	Heal Africa	Kyeshero	HGR Bunia	CME Bunia
Average dispensing time (minutes)	2.4	2.1	2.2	2.6

FAMILY PLANNING, TB, AND MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

OBJECTIVE 1: PHARMACEUTICAL SECTOR GOVERNANCE STRENGTHENED

Activity 1.1.1: Assist the DPM in strengthening medicine registration procedures for essential medicines, especially MNCH, FP/RH, and TB medicines

MTaPS assisted DPM in holding a four-day training workshop on processing marketing authorization (MA) requests for new members of the registration committee. The workshop provided a 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

A total of 20 participants attended the training and received a brief orientation on GMP to better understand the content of technical dossiers submitted for registration.

Activity 1.1.2: Assist DPS, inspectors, and customs officers in accessing and using the updated Directory of Registered Medical Products for inspections and import control (cross-cutting activity: MNCH, FP/RH, and TB)

MTaPS supported the pharmacy inspectors of the IPS in conducting field visits to pharmaceutical wholesaler companies in Ituri 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 (Médecins Sans Frontières [MSF], Save the Children, and MEDAIR), given the considerable quantity of products managed by these international institutions. Similar field visits took place in Nord Kivu at 13 companies (Getraco, Shalina, Edinoki, Moon-Pharma, Unique Pharma, Noblesse, Bethel, Shikina, Gulf Africa, De l'Espoir, Prince-Pharma, BDOM, and Association Régionale d'Approvisionnement des Médicaments Essentiels [ASRAMES]).

The inspection visits focused on identifying unregistered medical products that are being imported by local companies and identifying products with MAs that will expire in the next six months and alerting the 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.
- The 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 plans to support all USAID implementing partners that manage significant quantities of health commodities in complying with the current MA requirements in DRC.

In Ituri, MTaPS also supported IPS in organizing a feedback meeting on the latest inspection visits carried out at NGOs' 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). The meeting was also an opportunity to raise awareness among wholesalers and implementing partners on the product registration process so that they select only registered and authorized products. MTaPS will support DPM in disseminating the most recent Directory of Registered Medicines.

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

To continue improving coordination among partners, MTaPS, in collaboration with Université Libre de Bruxelles-Cooperation, Santé Rurale (SANRU), MSF, Catholic Organization for Relief and Development (CORDAID), and ASRAMES, supported DPS in conducting a provincial TWG meeting in Nord Kivu. The objectives of the meeting were as follows:

- Present the mid-term evaluation of the distribution of pharmaceutical products for malaria, HIV/AIDS, TB, MNCH, and COVID-19 commodities at Centrales de Distribution Régionales (CDRs), covering the period January to September 2021
- Inform on pharmaceutical products expiring in the next six months in the CDRs
- Determine next steps in introducing the reduced package of FP products at the community level

A total of 23 participants attended the meeting, including representatives from Université Libre de Bruxelles-Cooperation, SANRU, MSF, CORDAID, ASRAMES, UNFPA, MTaPS, Heal Africa, Hope in Action, USAID/Momentum project, as well as representatives from DPS and specific programs. Participants decided to establish a commission to estimate the quantity of products at risk of expiration in the CDR to mitigate the risk of waste due to expiration. The MNCH and FP sub-group members also recommended that MTaPS and USAID/Momentum finalize the introduction of the reduced FP package at the community level by making the package available and briefing community members on its use.

MTaPS also collaborated with SANRU, MSF, CORDAID, and ASRAMES to support a similar TWG meeting in Nord Kivu. During this meeting, participants approved the distribution plans for malaria, HIV/AIDS, TB, and MNCH products, as well as COVID-19 personal protective equipment for the fourth quarter of calendar year 2021. They also reallocated a few antimalarial products that were in overstock and at risk of expiry in certain HZs.

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

Activity 2.2.1: Support DPS in strengthening technical and managerial capacities of HF staff in pharmaceutical management (cross-cutting activity: MNCH, FP/RH, and TB)

MTaPS supported DPS in conducting joint field-support supervision visits with HZs to monitor pharmaceutical management, availability of MNCH products, logistics data collection, and reporting at health centers in Ituri and Nord Kivu. These visits were also an opportunity to coach staff and to work with them to take appropriate actions to address issues. The supervision visits revealed the following:

- Data collection and reporting tools were available in all HFs visited.
- Tools are printed with HFs' own funds, which is a significant step toward MOH ownership.
- Good storage conditions for oxytocin (where it was available) were observed.
- Low availability of MNCH products observed in most HFs visited in Nord Kivu, especially for amoxicillin DT, magnesium sulfate, calcium gluconate, ceftriaxone, and oxytocin.
- Oral rehydration salt-zinc and chlorhexidine digluconate were stocked out.

Supervisors requested that HZs submit emergency orders to CDR and UNFPA for resupply.

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

Activity 3.2.1: Assist DPS and HZs in strengthening the data collection system to improve availability, quality, visibility, and use of logistics data

MTAPS supported DPS in organizing a logistics data analysis meeting. The meeting focused on the InfoMED platform's functionality. Participants included the DPS executive team; representatives of the Goma, Nyiragongo, and Karisimbi HZs; and representatives of partners, including the GF_SANRU/Programme de Promotion de Soins de Santé Primaires (PPSSP). A total of 19 participants attended the meeting. They noted low levels of timeliness in data reporting in InfoMED (only 6/34 HZs or 17.6% reported in a timely manner), compared to high levels of timeliness (93.5%) in the DHIS2 platform. This low performance was due to faulty data migration from DHIS2 to InfoMED, which makes it difficult to submit, publish, and generate expected reports in InfoMED.

The table below shows the level of timeliness by HZ (classified into four categories):

Table 18. Timeliness of Data

Indicator: Timeliness of data		Observation
Performance level	**HZs**	
High-performing HZs with over 80% of data published	Kyondo, Vughovi, Manguredjipa, Butembo, Birambizo and Biena	6 HZ out of 34, or 17.6 %
Performing HZs with 50% to 70% of data published	Kalunguta, Kibua and Lubero	Only 3 HZs, or 8.8%
Low-performing HZs with less than 50% of data published	Katua, Binza, Kibirizi, Masisi, Walikale and Rutshuru	6 HZs out of 34, or 17.6 %
Nonperforming HZs with 0% of data published	Alimbongo, Bambo, Beni, Goma, Itebero, Kamango, Karisimbi, Katoyi, Kayina, Kirotshe, Mabalako, Masereka, Musienene, Mutwanga, Mweso, Nyiragongo, Oicha, Pinga, Rwanguba	56% of HZ (all HZs supported by MTaPS fall in this category)

During the meeting, DPS developed improvement plans for HZs. The plans will be implemented in collaboration with other partners, and they will be reassessed in January 2022.

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

Activity 5.1.1: Assist DPS in establishing and increasing the technical capacity of provincial medical product quantification committees (cross-cutting activity: MNCH, FP/RH, and TB)

MTaPS, in collaboration with and with financial support from the GF, supported DPS Ituri in organizing a five-day training on quantifying medicines and other health products for the management teams in 24 HZs. This training aimed to build the capacity of HZ management teams in forecasting needs 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 Programme National d'Approvisionnement en Médicaments (PNAM) and the GF, 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 all these categories of products for fiscal year 2022.

In addition, per the USAID/DRC Mission's request, MTaPS, in collaboration with USAID Momentum Integrated Health Resilience (MIHR) and the GHSC-Technical Assistance projects, quantified MNCH products for the 10 HZs supported by USAID MIHR in Nord Kivu, which resulted in the estimate of MNCH commodities to be procured by USAID for fiscal year 2022. The quantification report was submitted to the USAID/DRC Mission through GHSC-Technical Assistance to launch the procurement process through the USAID GHSC-PSM mechanism.

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

MTaPS organized the preparatory phase of the survey on the use of contraceptives in the private sector in Ituri and Nord Kivu provinces. This preparatory phase consisted of:

- Defining the target population for the study: The study will target outlets/pharmacies likely to sell modern contraceptives.
- Determining the type of study: The survey will be a descriptive survey, and data collection will focus on sales data from targeted outlets/pharmacies.
- Determining sample size: The criterion required for sampling is an estimate of 50% availability of three or more modern contraceptive methods at the outlet/pharmacy.
- Determining the sampling technique: The study will use a multi-degree sampling technique.

The survey will start in January 2022 in Ituri and Nord Kivu.

Activity 5.2.1: Support DPS in strengthening MNCH health care capability by disseminating updated MNCH treatment protocols and job aids to HFs and training health care providers on their use

MTaPS supported the Direction de la Santé de la Famille et de Groupes Spécifiques (DSFGS/D10) in organizing a validation meeting on the newly developed protocols and job aids for using heat-stable carbetocin, tranexamic acid, and folic acid.

The president of MOH's Services, Implementation, Monitoring, and Evaluation Commission (CPMSE) chaired the meeting. Thirty experts representing the Direction Générale d'Organisation et de Gestion des Soins de Santé (DGOGSS), Secretariat of CPMSE, DSFGS, DSSP, Direction d'Etudes et Planification (DEP), DPM, Programme Elargi de Vaccination (PEV), Programme national de lutte contre les maladies respiratoires aiguës (PNIRA), Programme National de Santé de la Reproduction (PNSR), Programme National de Santé de l'Adolescent (PNSA), Programme National de Nutrition (PRONANUT), Programme National de Réadaptation à Base Communautaire (PNRBC), PNAM, Société Congolaise de Gynécologie et d'Obstétrique (SCOGO), La Société des Techniciens Anesthésistes- Réanimateurs du Congo (SARDC), Société Congolaise de la Pratique Sage-femme (SCOSAF), and Société de Pédiatrie du Congo Démocratique (SOPECOD) and representatives from MTaPS, PATH, WHO, UNICEF, UNFPA, USAID IHP, Save the Children, IPAS, PATHFINDER, SANRU, Jhpiego, Latter Day Saints Church, Embassy of Sweden, Japan International Cooperation Agency, and PDSS attended the meeting.

Following the meeting, the CPMSE validated the protocols and job aids for using heat-stable carbetocin, tranexamic acid, and folic acid. The validated protocols and job aids will be submitted to MOH's Central Technical Coordination Committee for its adoption. The protocols and job aids will be printed and disseminated to HFs.

Activity 5.2.4: Support DPS, in collaboration with Action Damien, to organize mini-awareness campaigns for active screening of TB and adherence to TB treatment in Ituri province (TB-specific activity)

MTaPS collaborated with Action Damien to support DPS and provincial TB coordination in Ituri to organize a four-day awareness-raising campaign for active detection of TB and adherence to TB treatment in Bunia and Nizi HZs, from November 20-25 and December 6-12, respectively. During these campaigns, 41 sputums tested TB-positive out of 248 sputums 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 co-infection. 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 additional partners to support awareness-raising and TB detection activities.

SUPPLY CHAIN GOVERNANCE, CAPACITY BUILDING, AND FINANCING

ACTIVITY 1: COLLABORATE WITH MOH (THROUGH DPM AND PNAM) AND THE MINISTRY OF THE ECONOMY TO ASSIST THE HEALTH ECONOMICS TECHNICAL COMMISSION IN RATIONALIZING THE PRICES OF HEALTH PRODUCTS TO INCREASE ACCESS FOR VULNERABLE POPULATIONS

MTaPS supported the Ministry of the Economy in organizing a workshop on the cost rationalization of health commodities and services. Eighty participants from the Office of the President, MOH, Ministry of Finance, Ministry of Budget, civil society, and medical-pharmacy and nursing corporations attended the workshop. This workshop, which followed the previous workshop organized by WHO and SANRU, focused on reviewing existing regulatory texts, adapting them, or developing new texts and making recommendations to rationalize the cost of health products and services to reduce prices and improve the populations' access to health products and services.

Three sub-groups, a health product group, a health services group, and a mutualization group, addressed thematic-specific issues and reported back to the plenary group. Participants from the plenary sessions recommended that the sub-groups' work should be carefully reviewed by a select committee within the cabinet of the Ministry of the Economy to finalize the new texts recommended by participants.

Health products sub-group in breakout session during the health products price rationalization workshop. (Photo credit: MTaPS DRC)

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
GHSA	
Activity 1.3.1: Support the AMR-TWG in developing a monitoring framework that ensures regular monitoring and tracking of AMR activity implementation.	Feb 2022
Provide technical and logistical support to the NC-AMR and related TWGs (AMS and IPC) for effective monitoring and planning of AMR interventions.	Mar 2022
Establish/strengthen DTCs to oversee implementation of AMS interventions and conduct stewardship practices at designated health care facilities.	Feb 2022
Support the NC-AMR in strengthening the oversight of compliance with AMS policies and regulations in the human, animal, and environmental health sectors.	Feb-Mar 2022
Family Planning, TB, and Maternal, Newborn, and Child Health	
Support DPM in completing the update of the Directory of Registered Medicines.	Jan 2022
Support MOH in developing, printing, and disseminating selected materials on pharmaceutical management, such as job aids and supervision checklists.	Feb 2022
Support the national MNCH program (DGFGS/D10) in printing and disseminating protocols and job aids for using and administering heat-stable carbetocin, tranexamic acid, and folic acid, as well as amoxicillin DT job aids.	Feb 2022
Support DPS in collecting contraceptive consumption information from the private sector to determine contraceptive information gaps.	Jan 2022

INDONESIA - QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

In FY22Q1, MTaPS Indonesia achieved two key results in the approved work plan—supporting the implementation of the 9th HTAsialink Conference October 11–13, 2021, and developing pharmaceutical expenditure data sources.

OBJECTIVE 1: STRENGTHEN THE INSTITUTIONALIZATION OF MORE SYSTEMATIC, TRANSPARENT, AND EVIDENCE-INFORMED DECISION MAKING IN INDONESIA

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

The Indonesian MOH requested that MTaPS Indonesia review the HTA topic selection guidance and provide recommendations for improvement. MTaPS convened a face-to-face and online (hybrid) workshop on strengthening guidelines for the selection of HTA involving PPJK, the InaHTAC, and other stakeholders. A total of 64 people (42 female, 22 male) attended the focus group discussion (FGD). Participants came from the MOH, the HTA Committee, universities, and health professional organizations.

MTaPS submitted a report on the results of the FGD at the end of December 2021; the main findings related to the process of selecting HTA topics that needed major changes to the publication mechanism. The topic selection process needed minor revisions, especially in the submission procedure, and the assessment of criteria and mechanisms for selecting priority topics required major revisions. As a next step, MTaPS will conduct interviews with FGD participants on policy questions to further elaborate and explore strategies to strengthen the Indonesian topic selection process and the institutionalization of HTA in general. Once recommendations are made, MTaPS Indonesia will support the MOH to revise the HTA topic selection guidance for 2023.

Activity 1.1.2: Build capacity of key stakeholders on HTA methods

During the HTAsialink Pre-Conference (see activity 1.1.3), MTaPS conducted a demand survey and found that the main interests of the Indonesian Government are HTA and real-world evidence (45%), HTA and benefit package design (18%), HTA and valued-based purchasing (18%), HTA and multicriteria decision analysis (9%), and HTA and pricing of commodities (9%). Participants from Indonesia were represented by government, academia, and NGO stakeholders. Based on the results of the survey and discussions during the conference, MTaPS will follow up on the capacity building needs mentioned above in the next quarter.

Activity 1.1.3: Support HTAsialink 2021

MTaPS supported the MOH in implementing the 9th HTAsialink Conference October 11–13, 2021, in Indonesia. Engagement in international HTA conferences is an opportunity for MTaPS to expose participants to its work on recent HTA research/methods and to build connections with the international HTA network. These connections can create opportunities for capacity-building

collaboration or joint projects with MTaPS counterparts. MTaPS organized and facilitated a workshop with the theme "Health Technology Assessment Pathways in LMICs: Scaling up for Sustainability of UHC in Asia" at the HTAsialink Pre-Conference on October 11, 2021; provided language interpreters for each session of the main conference; and supported the collection of information and data during the conference to prepare the digest book and publish selected topics in academic journals. Through this activity, MTaPS Indonesia became well recognized by stakeholders, and the president of HTAsialink expressed his appreciation for MTaPS' support in his opening and closing remarks at the conference. By creating the digest and publishing in academic journals, MTaPS will also have a literature footprint in the Asia region, especially in Indonesia.

Of the 428 people who had preregistered for the pre-conference workshop, 220 attended. Participants came from Indonesia, the Philippines, Vietnam, Singapore, Taiwan, Malaysia, and other countries and included representatives from government agencies, MOHs, academic institutions, the private sector, NGOs, and others. The results of this activity are available at https://www.mtapsprogram.org/news-blog/advancing-health-technology-assessment-in-asia-for-sustainable-uhc/.

Finally, MTaPS supported the local committee of the 9th HTAsialink Conference in compiling the digest of the conference and publication of selected topics. The first draft of the conference digest was submitted to PPJK at the end of December 2021.

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

Activity 2.1.1: Landscaping of pharmaceutical expenditure tracking data sources

A socialization meeting on identification of data sources to support drug expenditure tracking in Indonesia was held November 12, 2021. The objective of the meeting was to consolidate the process between PPJK and the MOH's Director General of Pharmacy and Medical Devices (Farmalkes) to have the same framework regarding pharmaceutical expenditure. The workshop was also attended by the NHA team and the Minister's Special Staff, Prihastuti Soewondo, PhD. A total of 37 participants (10 male, 27 female) attended the workshop.

As a result of the meeting, MTaPS obtained information on sources of data related to pharmaceutical spending from the information systems of four units at the Directorate General of Farmalkes—the Secretary General, Directorate of Production and Distribution of Pharmacy, Directorate of Public Medicines and Medical Devices, and Directorate of Pharmacy Services. MTaPS also received input and endorsement to conduct a meeting on identification of data sources to support drug expenditure tracking in Indonesia with stakeholders from the public and private sectors.

On December 16, 2021, MTaPS organized a data source identification meeting with 40 participants (9 male, 31 female) from the public and private sectors to support drug expenditure tracking in Indonesia. MTaPS compiled sources on pharmaceutical expenditure from the MOH; *Badan Pengawas Obat dan Makanan* (national agency of drug and food control); *Badan Penyelenggara Jaminan Sosial* (national body for social security implementation); *Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah* (national public procurement agency); IQVIA; and P*erkumpulan organisasi perusahaan alat-alat kesehatan dan laboratorium* (association of medical and laboratory equipment company organizations). Although the International

Pharmaceutical Manufacturers Group, GP Pharmacy, and the Ministry of Industry have not provided information, available pharmaceutical expenditure information, information systems, data availability formats, pharmaceutical procurement and distribution flows, data limitations, procedures for data collection, and contact persons from public and private institutions can be collected. The pharmacy spending data source report was submitted to PPJK at the end of December 2021. This data source is needed by the MOH to access pharmaceutical expenditure data from related institutions to complete the NHA report (up to this point, the Government has not had a comprehensive pharmaceutical expenditure report).

Activity 2.1.2: Support the NHA team's capacity to compile pharmaceutical expenditure data in one focal district

MTaPS supported the PPJK and Indonesian NHA team to strengthen their capacity on pharmaceutical expenditure data tracking. As a first step, this activity will be implemented in one district. MTaPS submitted draft criteria and workflow process for tracking pharmaceutical expenditures to PPJK. On December 23, 2021, MTaPS conducted a coordination meeting with PPJK and other stakeholders to discuss pharmaceutical expenditure tracking in one district. Based on input from participants, the acting head of PPJK selected Depok district for the pharmaceutical expenditure tracking. The lessons learned and experience gained by the national team might be extrapolated to other districts in the country and eventually used to complete pharmaceutical expenditure information on the NHA.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Objective 1	
Complete the desk review and interviews	Jan-Feb 2022
Recommendation report for strengthening topic selection process developed	Feb 2022
Finalize the HTAsiaLink digest	Mar-Apr 2022
First draft of peer-reviewed journal article based on HTAsiaLink digest completed	May 2022
Objective 2	
Finalize the landscaping of pharmaceutical expenditure tracking data sources report	Jan-Feb 2022
Complete the district data collectors' consultants	Jan-Feb 2022
Complete the district pharmaceutical expenditure data collection	Mar 2022
Complete the district pharmaceutical expenditure data mapping and policy brief development	May 2022

ETHIOPIA - QUARTER PROGRESS FOR FY22Q1

Ethiopia's GHSA-related goal is to build the capacity of government stakeholders to effectively combat the development and spread of AMR. MTaPS will provide technical support to Ethiopian stakeholder institutions in the three result areas: appropriate use of AMR, strengthening (IPC practices, and consolidating MSC to help move the country to higher JEE scores.

YEAR 4 WORK PLAN DEVELOPMENT:

The MTaPS Ethiopia FY21 GHSA work plan was tentatively approved on December 20, 2021, pending discussions of activities with the MOH. This discussion did not take place as planned because there were no staff at the field office level.

RECRUITMENT OF IN-COUNTRY USAID MTAPS STAFF:

MTaPS has recruited two senior technical advisors, Tewodros Fantahun Terefe and Workineh Getahun Ambelu, who started on the team on December 1, 2021, and December 27, 2021, respectively. They have gone through MSH's orientation and onboarding. The team will be joined by a country project director and two finance and operations staff. Interviews were held and MTaPSis awaiting final recruitment. The office has been set up and the startup procurement of computer equipment and furniture has been completed. MTaPS Ethiopia will operate from an office in the same building as other MSH in-country projects and will share key finance and administrative staff to support the MTaPS program implementation.

PLANNED GLOBAL HEALTH SECURITY AGENDA ACTIVITES

RESULT AREA 1: EFFECTIVE MSC ON AMR

Activity 1.1.1: Support the MOH and national AMR MSC stakeholders to revise the national AMR prevention and containment strategy, including M&E framework

MTaPS, in collaboration with other stakeholders on the OHP, will provide technical support to Pharmaceuticals and Medical Equipment Directorate (PMED) and National AMR Advisory Committee (NAMRAC) to revise the national AMR prevention and containment strategy and plan of action for implementation at various levels.

MTaPS will support the NAMRAC and partners to:

- Conduct a rapid situational analysis to identify major risks for AMR. Facilitate a rapid review of the implementation status of the existing NAP and use outputs of this review to inform the revision process; to provide additional evidence, MTaPS will help analyze data from the IPC Assessment Tool 2 and (IPCAF assessments of core components of IPC programs and assess the core elements of AMS programs at both the national and facility level. MTaPS will also support a consensual evaluation of the country's level of completion of benchmark actions in each International Health Regulation Benchmarks component of the AMR action packages.

- Undertake a rapid assessment of stewardship policies and regulatory framework for antimicrobials, including the supply chain management of antimicrobials in the country, using a multisectoral approach. This assessment will identify regulatory, policy, and implementation gaps that need to be filled to enhance AMS, AMR containment, and MSC in the AMS area. In addition, the assessment will establish whether the policy and legislative framework covers all aspects of antimicrobial regulation. MTaPS will provide technical support to the NAMRAC Secretariat to develop data collection tools and collect and analyze data. This assessment will cover both private and public human health sectors as well as animal health sectors. The assessment will inform the development of the AMS sections of the national AMR plan during revision.

- Organize stakeholder dialogues, roundtables, and other relevant forums to map out partners and their roles in implementation of the plan, including funding sources and highlighting, discussing, and sharing visibility of women leaders and role models in their work with MSC committees and its IPC and AMS TWGs

- Develop an M&E framework for implementing and following up on the AMR prevention and containment strategy and action plan

Activity 1.1.2: Continue to support PMED to organize effective MSC through regular meetings of AMR stakeholders, including animal health and environmental protection

MTaPS will continue providing technical support to strengthen the NAMRAC and the AMS and IPC TWGs to enhance its coordinating and leadership capacity to combat the threat of AMR. This includes conducting quarterly meetings of the NAMRAC and regular meetings of its TWGs. MTaPS will also support PMED by holding annual plan review meetings of NAMRAC. As appropriate, MTaPS will provide technical support to the MOH/PMED to strengthen the capacity of the six regional health bureaus (RHBs) through review of their action plans. RHB staff will be offered coaching and mentoring to ensure that their activities will incorporate interventions at the woreda and community health level.

RESULT AREA 2: IPC

Activity 2.2.1: Update and finalize IPC training materials for HCWs and support staff based on revised IPC guidelines

MTaPS will provide guidance to the Clinical Services Directorate (CSD), PMED, RHBs, and targeted facilities to provide IPC training to HCWs and support staff to improve compliance with the revised IPC guidelines through the following sub-activities:

- Finalize the IPC facilitators' guide and participant's manual for HCWs and revision of IPC training materials

- Revise IPC training guide and participants' manual for support staff and other lower-level cadres, including information on outbreak preparedness and transmission-based precautions; tailor the training materials for health facilities at the woreda level

- Explore supporting the revision/updating of policies/guidelines or strategies/approaches to include a requirement for gender equity in selecting trainees and trainers; creating or utilizing an existing working group on gender equity with key stakeholders from professional councils and associations; and performing a gender analysis of recruiting, training, and educational opportunities to identify discrepancies

- Provide technical support to MOH and RHBs to expand training to additional health workers who cannot be trained using face-to-face methods by using remote training approaches, including webinars and e-learning solutions initiated with the advent of the COVID-19 pandemic; identify opportunities to leverage or build upon existing e-learning platforms in the country

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

MTaPS will provide technical assistance to the NAMRAC Secretariat, CSD, PMED, and RHBs to carry out the following sub-activities to monitor IPC implementation in the 30 health facilities that were previously trained:

- Develop an IPC activity monitoring strategy based on IPCAF in collaboration with the facility committees using WHO multimodal strategy blended with a continuous quality improvement approach based on the Plan-Do-Study-Act cycle

- Capacitate MOH and RHB facilitators to conduct supportive supervision of targeted health facilities (at least 5 of 30) to monitor and support implementation of facility action plans

- Monitor IPC and WASH implementation in selected health care facilities (at least 5 of 30) using IPCAF; HH self-assessment framework; HH compliance observation tools; WASH facility improvement tool; and other national tools as appropriate - monitoring will include self-assessments and quarterly supervision and monitoring visits from RHBs (external assessment)

- Update and implement action plans, informed by assessment results and following the five-step cycle described in the practical manuals, that progressively covers all recommended IPC priority core components at the national and facility levels according to WHO requirements/action checklists for the priority core components identified

- Build the capacity of IPC teams/committees and focal persons at designated health facilities to adapt experience and behavior change approaches developed and used during COVID-19 to become sustainable and widely applicable to preventing health care-associated infections and AMR

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Support the finalization and dissemination of the revised STG) and EML

MTaPS will collaborate with PMED and Ethiopian FDA to have a quick and final review of these documents, especially because a new 2021 version of the WHO model EML has just been released. The

STGs will be an important component of the proposed AMS SOPs to ensure this document continues to receive full priority during AMS implementation and monitoring.

MTaPS will implement the following sub-activities:

- Technical and language review of the final drafts of the STGs and EML
- Organize launching workshops to familiarize stakeholders with the revised STGs and EML
- Support dissemination of guidelines, accompanied by briefing sessions for end-users

Activity 3.2.1: Continue to support training of health care providers on AMS at public and private health facilities

In collaboration with the facility AMS committee, the facility champions will be supported by MTaPS to organize training in their respective facilities with technical support from the PMED and RHBs.

MTaPS will support PMED and the RHBs to:

- Provide TOT and basic training on AMS core components for AMS team members and program managers at MOH and RHBs
- Provide technical assistance to PMED and RHBs to conduct supportive supervision, monitoring, and mentoring to ensure that knowledge and skills are translated into practice
- Facilitate development and reviews of AMS improvement plans as a result of this activity and in correspondence with activity 3.5.1 on stewardship practices

Activity 3.5.1: Strengthen AMS implementation in targeted health facilities

MTaPS will build on the capacity of DTCs to facilitate ownership of AMS programs and enhance performance of the AMS team. MTaPS will provide technical support in adapting and developing job aids, such as SOP on AMS, data collection tools for drug use evaluation, and training on AMS core components (activity 3.2.1) to capacitate DTCs and AMS teams. MTaPS will also promote the implementation of STGs once they're finalized. DTCs and AMS teams will also be supported to develop/update hospital-specific action plans, conduct drug use evaluations, and customize access, watch, and reserve categorization of antibiotics to guide implementation of AMS activities in their respective hospitals in line with the revised STGs and EML (activity 3.1.1).

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Discuss the work plan with the MOH and start implementation of activities	TBD

JORDAN - QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

OBJECTIVE 1: STRENGTHEN PHARMACEUTICAL-SECTOR GOVERNANCE

MTaPS continued advocacy and follow-up with the NVPMC) and the relevant stakeholders including MOH, the LOB, and the JFDA to ensure the fulfillment of the conditions precedent (CP). Efforts paid off when a letter dated September 29, 2021, was issued from the LOB to the MOH confirming the adoption of the suggested amendments on the procurement by-law draft. According to the letter, the amendments—which are to be submitted to the Government of Jordan's Prime Ministry for approval—include the addition of an article that permits price negotiation after the initial award in the procurement process (Article #41/F in the procurement by-law draft) and the extension of the framework agreement from two to five years (Article #57 in the procurement by-law draft).

Regarding the CP related to expediting the registration of the WHO-prequalified vaccines, the National Gazette published on October 17, 2021, outlined the JFDA's modified registration principals which included the acceptance of and priority for WHO-prequalified vaccines registration.

Moreover, vaccine reference prices to be used in the procurement processes were communicated through an official letter from the JFDA to the Government Procurement Department (GPD) on November 24, 2021. The vaccine pricing was the last pending CP intervention and, by completing it, USAID announced that all CPs are considered met.

MTaPS held a meeting with the NVPMC to present its approved FY22 work plan, developed with the committee, and outline next steps for implementation of the seven key interventions which build on the legislative and policy reform achieved thus far. The committee reviewed the implementation steps, provided feedback, and prioritized the program's activity 1.3.2 related to monitoring of fair competition and training of relevant stakeholders on the subject matter.

Finally, two comprehensive reports titled "Required Amendments in the Jordanian Government Procurement By-Law to Modernize Jordan's Vaccine Procurement Policies and Processes" and "Legal Mechanisms Available to Accelerate the Registration of Vaccines" are under finalization and will be submitted to USAID in the next quarter.

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

In FY22, MTaPS will work directly with the MOH's PSD and relevant stakeholders to conduct an assessment of the supply chain in all its stages—from planning through distributions and returns—to identify weaknesses and outline comprehensive technical and administrative implementation recommendations to strengthen performance and optimize supply chain processes. The assessment will build on the initial work conducted through the LHSS Project, which focused only on the inventory management of the polymerase chain reaction test for COVID-19.

In addition, MTaPS will review and update the PSD policies and procedures to ensure an effective and efficient SCMS that involves instituting good supply chain governance with clear structures; strategically planning, designing, and implementing all functions and related processes; investing in human resources and institutional capacity to properly manage the supply chain systems; and reflecting updated policies and procedures into the information systems. In Q1, MTaPS finalized two SOWs for consultants needed to complete the above-mentioned activities and initiated the recruitment process.

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

In FY22, MTaPS will provide technical support to the NVPMC and national counterparts in producing a comprehensive assessment report and recommendations of potential sustainable funding mechanisms for vaccines. The report will include an implementable action plan. During this quarter, MTaPS finalized the SOW for its core partner, R4D, to cover activities under this objective in alignment with Objective 1. Interventions are expected to commence next quarter.

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

During WAAW, celebrated every year from November 18-24, MTaPS supported Jordan's MOH to raise community awareness on AMR. Under the 2021 theme "Spread Awareness, Stop Resistance," MTaPS collaborated with the MOH PCPD, Infection Prevention and Control Department (IPCD), and Communicable Diseases Directorate (CDD) to support the MOH Health Communication and Awareness Directorate (HCAD) in developing a set of health communication messages targeted at the community to improve understanding and awareness of AMR, in line with the NAP-AMR. The activities included creating social media awareness posts on AMR and engagement with health care providers in select health facilities, where MTaPS will work on the rational use of antimicrobials program, as well as an AMR awareness day for general physicians and pharmacists coordinated by the PCPD.

MTaPS worked closely with all counterparts to produce relevant community health messages on AMR. Once all counterparts reviewed and approved these, MTaPS proceeded to procure vendors to design social media posts and create an animation video to deliver the health messages to the general public via the MOH's official social media platforms. The MOH disseminated the posts throughout the duration of WAAW.

Moreover, MTaPS supported the MOH to hold a series of events at selected MOH hospitals to encourage health care providers to take a pledge to "handle antimicrobials with care" and become "AMR awareness champions," in line with the WAAW 2021 theme. MTaPS conducted a field visit to MOH Prince Hamza Hospital to meet with the AMS team and carry on the above-mentioned activities.

These awareness activities are supporting the MOH to achieve the first objective of the NAP-AMR to improve awareness and understanding of AMR through effective communication, education, and training. The health messages disseminated via social media posts and shared on the MOH social media platforms focused on explaining the concept of AMR and the dangers of its impact, using resistant bacteria as an

example. Other health messages pertained to the safe use of antibiotics to help tackle antibiotic-resistant bacteria and infection prevention practices.

MTaPS will continue to support the MOH in its implementation of the NAP-AMR and collaborate with relevant stakeholders to develop a comprehensive program to optimize the rational use of antimicrobials at MOH facilities. Moreover, MTaPS will continue to support the MOH to improve awareness and understanding of AMR among the community and health care providers.

In November, MTaPS met with the PCPD to discuss the AMS program activities according to the FY22 work plan. MTaPS suggested an approach similar to the one implemented for improving antibiotic prophylaxis in cesarean section in Jordanian hospitals under MSH's Systems for Improved Access to Pharmaceuticals and Services Program. Following the meeting, MTaPS prepared a presentation on the AMS program design and implementation plan to present to the National AMS Committee (NAMSC).

In December, the PCPD organized a meeting for the NAMSC, during which MTaPS presented their suggested AMS program design and implementation plan. Members of the committee were highly engaged and provided useful feedback for further consideration. Members of the committee agreed to form a smaller TWG to set the criteria for selecting priority clinical areas for interventions. Moreover, the Royal Medical Services representative requested to meet with MTaPS to discuss the possibility of expanding the program to include its hospitals, and a meeting was scheduled for early next quarter.

In light of these activities, MTaPS also engaged the MOH national AMR focal point who is keen on re-activating the AMR steering committee and scheduled a meeting to discuss next steps in January. MTaPS will also meet with key stakeholders from the Medical Specialties Directorate, Laboratories Directorate, and Institutional Development and Quality Directorate to ensure full engagement of all relevant stakeholders and a collaborative approach in implementing the facility-based programs.

To understand whether the COVID-19 pandemic has had an impact on antimicrobial consumption, MTaPS continued to support the MOH PCPD by analyzing antimicrobial dispensary records across four hospitals (Prince Hamza, Al-Bashir, AL-Karak, and Jordan University) from 2019 and 2020 for the retrospective descriptive observational study. The study is using antimicrobial dispensing as a proxy for antimicrobial use. This quarter, MTaPS supported the PCPD to resolve queries regarding the collected data. MTaPS also discussed the new MOH medicines delivery service with the PCPD. MTaPS can potentially support awareness campaigns for the public to promote the service and/or to update the service policy. MTaPS is currently waiting on feedback from PCPD to determine the necessary next steps for support.

MTaPS continued working closely with PCPD members on strengthening the technical and systematic functions of the COVID-19 vaccines safety surveillance efforts. In October, MTaPS collaborated with the PCPD to coordinate a high-level meeting with the MOH Secretary General, the Director of the Project Management and International Cooperation Directorate, and the USAID/Jordan Project Management Specialist to present and discuss the AEFI data collected in August. The group provided feedback regarding the presentation of the data. MTaPS discussed the challenges faced during analysis with the PCPD Director who committed to communicating these to the Electronic Transformation and Health Information Directorate and data collectors to improve the quality of collected data.

In November, MTaPS conducted a hands-on training session for PCPD members on how to clean the raw AEFI data extracted from the electronic system used to store the primary data sets collected through the calls to vaccinated individuals. MTaPS assisted PCPD members with the data cleaning and processing step for subsequent aggregation and analysis. It was agreed that MTaPS will clean, process, and analyze the AEFI data collected in September and that the PCPD would carry out these steps for subsequent months. MTaPS received the September data at the end of October and expended a significant amount of effort cleaning, validating, and processing it. MTaPS then conducted a thorough analysis of the data and presented it to the PCPD for their feedback.

At the end of December, the National Pharmacovigilance and COVID-19 Vaccines Adverse Events Monitoring Committee convened to discuss the data analysis for August and September and next steps for the MOH's COVID-19 vaccines safety surveillance efforts. Committee members from the JFDA and WHO were in attendance, but the Expanded Program on Immunization Manager did not attend, and the CDD was not invited. During the meeting, the committee chairperson informed members that the committee would be reformed. MTaPS presented data analysis for August and the PCPD presented data analysis for September. Members of the committee discussed referring to reports from neighboring countries to produce similar reports for Jordan. MTaPS expressed their full support to the committee in producing a thorough analysis of the collected data so far and producing a comprehensive report to be shared with key decision makers. Following the meeting, the committee chairperson issued an official letter signed by His Excellency the Minister of Health with new committee members.

MTaPS conducted several meetings with the head of the IPCD to initiate IPC activities according to the approved FY22 work plan. The head of the IPCD officially requested His Excellency the Minister of Health to include MTaPS as a member of the Advisory Committee for IPC (ACIPC). Moreover, she requested MTaPS' support in developing a draft TOR for IPC focal points. She also requested MTaPS' technical, logistic, and administrative support during the committee's second meeting held in December. During the meeting, MTaPS presented the draft TOR for IPC focal points and facilitated a discussion session among members to obtain their feedback. The Secretary General's assistant discussed the importance of COVID-19 vaccines safety surveillance data to support decision making and encourage vaccination uptake amidst media misinformation and asked for three recommendations from the committee:

- Make the first and third doses of the vaccine mandatory for health care workers
- Manage media misinformation
- Reinforce the mandatory use of personal protective equipment

Following the meeting, MTaPS updated the TOR and shared them with committee members for final review. MTaPS will follow up on the official approval of the TOR in the next quarter.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Coordinate meeting(s) with the NVPMC to initiate the implementation of the prioritized activities in the National Vaccine Procurement Modernization Operational Plan	Jan-Mar 2022
Initiate the desk review for the study on the best modality to fund vaccine procurement in Jordan	Jan-Mar 2022
In coordination with the GPD, initiate drafting the negotiation instruction and framework agreement guidelines	Jan-Mar 2022
Initiate coordination with the competition department in the Ministry of Industry, Trade, and Supply to develop manual and training materials for fair competition	Jan-Mar 2022
Start the supply chain assessment in coordination with the PSD	Jan-Mar 2022
Meet with the HCAD to work on COVID-19 vaccines IEC materials	Jan-Mar 2022
Meet with the PCPD and Jordan Pharmacists Association (JPA) to develop a PV best practice training curriculum	Jan-Mar 2022
Meet with the PCPD and JPA to start developing the content of the AMS training curriculum	Jan-Mar 2022
Meet with the IPCD and ACIPC to start developing the national IPC program	Jan-Mar 2022
Provide technical, logistic, and administrative support to the ACIPC	Jan-Mar 2022
Meet with the PCPD and AMS committee to select priority antimicrobial prophylaxis and treatment guidelines for review and update	Jan-Mar 2022
Meet with the AMS committee to review and update the TOR for hospital-level AMS teams	Jan-Mar 2022

KENYA - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

Activity 1.1.1: Continue strengthening the National Antimicrobial Stewardship Interagency Committee (NASIC) for coordination, policy direction, review, and M&E of the national AMR plan and help to move toward sustainable capacity

Technical support to MTaPS focus counties on preparation and commemoration of WAAW 2021 activities

MTaPS provided technical assistance to its focus counties and at the national level in the planning and implementation of both national and county WAAW activities November 18–24, 2021. The consistent planning with other stakeholders led to the successful launch of WAAW 2021. WAAW started with a two-day activity that included a symposium on AMR under the One Health approach on November 18, 2021, followed by the actual launch on November 19. During the launch event, various AMR documents were launched or relaunched including the AMR M&E Framework, Kenya National IPC Policy (2021), Kenya National IPC Strategic Plan (2021–2025), Diagnostic Stewardship Guidelines, and national integrated Antimicrobial Stewardship Plan (2021–2026). The first three of these documents had been supported through MTaPS technical assistance.

Several counties also commemorated WAAW 2021 by conducting activities such as CME sessions for health workers and patient sensitization on AMR. The activities aimed to increase awareness of AMR in Kenya and to encourage best practices among the public, health workers, and policy makers with the objective to curb AMR.

PPB sensitization meeting on AMR/ AMS

MTaPS participated in and provided technical input to a one-day sensitization meeting on October 18, 2021, on AMR, antimicrobial use, and consumption targeting regulators of both human and animal health antimicrobial agents in the context of One Health collaboration. The meeting was held by the PPB, which is the Kenyan national medicines regulatory agency, and aimed at sensitizing PPB staff on issues of AMR and how to improve the interventions by the medicines regulator on AMS activities.

AMR-related One Health publications: AMR bulletin or newsletters

MTaPS supported the dissemination of the NASIC AMR bulletin, which had been compiled and printed with MTaPS' support over the previous quarter. Dissemination of the bulletin leveraged other activities at the national level and within the focus counties. Electronic copies were circulated through various channels to stakeholders.

Dissemination of Government of Kenya AMR-related documents

MTaPS participated in the successful launch of the WAAW symposium in Nairobi, where various AMR documents were launched. Among the documents supported with MTaPS technical assistance were the NAP M&E framework, the National IPC Policy, and the National IPC Strategic Plan 2021–2025.

MTaPS; WHO; FAO; the World Organization for Animal Health, formerly the Office International des Epizooties; the MOH; and animal health and environment representatives launching key AMR documents at the Kenya WAAW 2021 Symposium November 19, 2021 (Photo credit: AMR secretariat)

Continued technical support in institutionalizing CASICs in target counties

MTaPS continued to support the strengthening of governance and coordination structures at the county level. This saw the launch of the Murang'a and Kilifi CASIC work plans as part of the extended WAAW activities. The Murang'a CASIC work plan was launched November 26, 2021, and the Kilifi CASIC work plan was launched November 30, 2021. Both launches had representation from One Health stakeholders within the county and were officiated by the respective County Executive Committee Member for Health. Prior to the launch of these work plans, MTaPS had provided technical assistance to the establishment of the CASICs, including their constitution, orientation on their work, and work plan development.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

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

National level

In collaboration with the MOH Division of Patient and Health Workers' Safety and other stakeholders, MTaPS completed a five-day IPC M&E framework development workshop September27–October 1, 2021. A draft copy of the IPC M&E framework and draft reporting tools were developed. A follow-on meeting was conducted with the consultant to complete the draft framework and reporting tool. MTaPS supported the finalization of an advanced draft of the IPC M&E framework at a workshop in Naivasha October 19–22, 2021.

MTaPS supported and participated in the sensitization of 39 county IPC coordinators, MOH stakeholders at a meeting on October 29, 2021. The draft IPC M&E framework was used during the sensitization, and feedback from county coordinators will be incorporated into the final draft.

Additionally, MTaPS supported the MOH in reviewing the national COVID-19 recommendations on IPC at a workshop October 25–29, 2021. The current COVID-19 IPC guidelines were being revised in accordance with global trends in and emerging science of COVID-19.

MTaPS started an initiative with the OSH division of the MOH in Q4 of year 3 to integrate OSH and IPC activities to avoid duplication of efforts. The teams held planning meetings October 28 and November 3, 2021, to build consensus on some of the MOH priorities and plans. An OSH orientation package had been drafted and updated, and a sensitization program has been developed for the county management teams.

The MOH and implementing partners embarked on the process of developing the National Patient and Health Worker Safety policy in August 2021. MTaPS continues to provide technical support and guidance in this activity. MTaPS participated in the development of the National Patient and Health Worker Safety and Quality of Care M&E Framework in collaboration with the MOH and other implementing partners November 29–December 3, 2021. This document was further reviewed with comments from stakeholders and underwent validation December 7–10, 2021. The document is aimed at tracking patient and HCW safety issues and provision of quality of care across all levels of health care provision.

To align the newly revised National IPC Policy and Strategic Plan, MTaPS supported the MOH in the revision of the 2015 National IPC Guidelines for Health Care Services in Kenya. The four-day workshop was held in Naivasha December 14–17, 2021. The revisions are aimed at updating the national guidelines to the current health status and aligning them with new guidelines addressing infectious diseases, including COVID-19. Workshop participants were able to draft an IPC high-level communique and an outline for the IPC dissemination package for the M&E framework and other related IPC documents.

Participants during the review of the 2015 National IPC Guidelines for Health Care Services in Kenya in Naivasha December 14–17, 2021. (Photo credit: E Kitangala)

County level

To strengthen IPC governance in Nyeri county, a meeting was held with members of the County Health Management Team (CHMT) October 13, 2021, to discuss the operations of the CIPCAC and monitor the implementation of the action plan. It was observed that several CIPCAC members had retired, meetings were not being held, and implementation of the IPC action plan had been hampered. Revival of the CIPCAC was recommended. On November 5, 2021, an eight-member CIPCAC was formally appointed, and MTaPS conducted a two-day sensitization and work planning workshop for the committee December 20–21, 2021.

In Kisumu County, MTaPS initiated the process of establishing the Kisumu CIPCAC, sensitized the team, and supported the development of a zero draft of the action plan. On October 14, 2021, the MTaPS team held a virtual meeting with the Kisumu CIPCAC to review and finalize the action plan. The meeting was attended by 11 members, and the activity was undertaken successfully. The action plan is complete and pending launch.

In Kilifi county, MTaPS held a meeting November 15, 2021, with Kilifi CHMT members to discuss the establishment of the CIPCAC, Members had been identified and appointment letters had been drafted. A two-day CIPCAC orientation and action planning workshop was conducted November 16–17, 2021, with 16 participants (10 male, 6 female). The CIPCAC members were also sensitized on OSH. The County Director of Health formally appointed 16 members to the committee.

Health facility level

In Murang'a county, meetings with members of hospital IPC committees were held November 11–12, 2021, at Murang'a CRH and Maragua Subcounty Hospital during the two-day supportive supervision in the facilities. The aim of the supervision was to provide technical assistance and guidance on resource mobilization to implement the IPC CQI action plans and review the progress in the implementation of planned activities. SOPs and IEC materials on HH were supplied by the MTaPS team during the visits.

In Kilifi county, MTaPS held meetings with members of the Kilifi CRH and Malindi Subcounty Hospital IPC committees. This activity was aimed at strengthening governance and coordination of the IPC program in both hospitals, which had been hampered by the lack of a coordinating structure and an IPC focal person at the county level. The newly appointed IPC focal person for Kilifi county and the county nursing officer also attended the meeting.

Activity 2.2.1: Provide technical assistance to implement a CPD-and relicensure-linked in-service IPC training course for delivery through relevant professional associations

MTaPS continued engagements with professional associations in supporting online learning and training of HCWs in IPC. On November 25, 2021, MTaPS facilitated an Extension for Community Healthcare Outcomes session on AMR with the topic "Kenya National Policy and Action Plan on the Prevention and Containment of Antimicrobial Resistance" with more than 80 participants from the across the country. This was a collaboration between the MOH and the Infection Prevention Network (IPNET) with technical support from MTaPS and other partners. This platform is being used to educate HCWs and build their capacity in IPC and AMR.

To share best IPC practices and promote CPD, MTaPS participated in and presented on IPC at a symposium organized by the Morticians and Allied Professionals of Kenya on December 4, 2021. A total of 57 participants attended the symposium at the University of Nairobi. The knowledge gained will help in the application of IPC precautions as part of participants' daily duties.

MTaPS' Erick Kitangala presents a certificate to a participant at a symposium organized by the Morticians and Allied Professionals of Kenya on December 4, 2021. (Photo credit: MTaPS)

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

MTaPS continued engagement with focus counties in monitoring implementation of CQI action plans and provided technical advice and mentorship to HCWs on writing scientific papers.

In Nyeri county, a quarterly supportive supervision was carried out in the eight focus health facilities (Karatina, Tumutumu, Mt. Kenya, Mukurweini, Othaya, and Outspan hospitals; Nyeri CRH; and Naromoru Health Center) October 12–13, 2021. Technical advice, mentorship, on-the-job training, and onsite feedback were shared during the visits to address implementation gaps.

In Murang'a county, MTaPS and the county IPC team conducted a two-day supportive supervision visit in two targeted facilities to monitor the status of implementation of the IPC CQI action plans November 11–12, 2021. During the support supervision, marked improvement was observed in the areas of HCWM and final waste treatment following the installation and operationalization of a shredder and a microwave in Murang'a CRH and stoppage of transport of health care waste to Maragwa Subcounty Hospital. Maragwa Hospital had been overwhelmed by the huge load of waste from Murang'a CRH and was working around the clock to incinerate the health care waste that had accumulated. In both hospitals, IPC committees are functional. They meet monthly; have written minutes and weekly supervision and CME schedules; and have reports for all committee activities, which indicates ownership and commitment by members and is key for sustainability.

In collaboration with the Kilifi CHMT, the MTaPS team conducted supportive supervision in Kilifi CRH and the Malindi Subcounty Hospital November 18–19, 2021. The objective of the facility visits was to assess the status of implementation of the IPC CQI plans on HH, HCWM, and surgical site infection surveillance. The MTaPS team provided onsite feedback, mentorship, and technical support to address identified implementation gaps. The implementation of the IPC CQI action plans has commenced at a slower pace than anticipated. Improvement was, however, observed in the treatment of health care waste in Malindi Subcounty Hospital, where a shredder and microwave have been operationalized to complement the incinerator that has been used previously. These facilities are assisting in the treatment of health care waste from neighboring health facilities. A special van has been allocated to transport the waste to the treatment site.

The MTaPS team continued with follow-up visits to health facilities to assess implementation of recommendations made during supportive supervisory visits. Such follow-up visits were made in Kisumu county (Kisumu CRH and Ahero and Kombewa hospitals) on November 24, 2021. Mentorship was done in the use of IPC CQI tools in all three facilities. The MTaPS team recommended a CQI refresher training targeting health care workers who haven't been trained in the focus facilities.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Continue to strengthen national and county AMS governance structures at national and county levels

Developing national antimicrobial consumption and use tools

MTaPS initiated discussions with the PPB on the development of national tools for antimicrobial consumption and use. Actual development of the tools will be scheduled in the next quarter.

Establishing and operationalizing county AMS committees

MTaPS collaborated with the now-operationalized Murang'a and Kilifi CASICs to launch their work plans. The work plans aim to sharpen the focus on and strengthen AMS/AMR activities in both Murang'a and Kilifi counties in line with the One Health approach, which seeks to holistically tackle AMR through a multisector approach that brings together the human health, agriculture, and environmental sectors.

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

Development of Kenya National Medicines Formulary (KNMF)

MTaPS and the MOH Division of Health Products and Technologies supported the development and validation of the first KNMF document, which incorporated the AWaRe categorization of antibiotics. Subsequently, the team met for a follow-on review meeting that included reaching consensus on the next steps to finalize the process of the KNMF document development. The KNMF will help guide HCWs on the appropriate prescribing of antimicrobials in the management of infections.

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

No activities were held this quarter.

Activity 3.5.1: Support to county, subcounty, and facility-level AMS activities

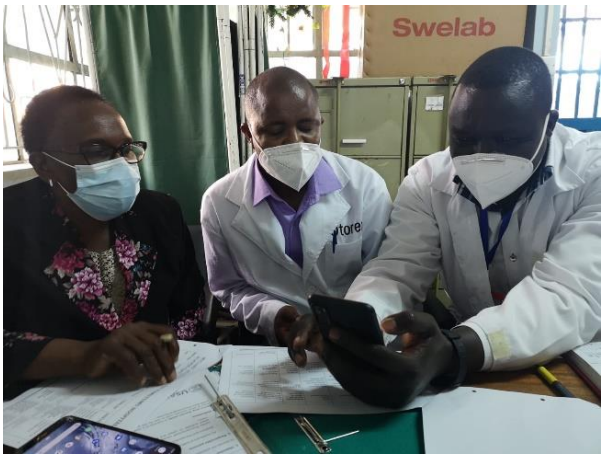
MTaPS continued monitoring implementation of county and facility CQI action plans on AMS and MTC interventions. The interventions are geared toward optimizing antimicrobial use to contain AMR. MTaPS also conducted two AMS/MTC team meetings in Murang'a and Nyeri counties to update the status of implementation of the AMS action plans. The teams have actively engaged in capacity building, CME, auditing, and monitoring antimicrobial use in the focus health facilities.

In Kisumu county, MTaPS and the County Health Department carried out supportive supervision and mentorship in three health facilities to monitor implementation of AMS CQI action plans. These activities aimed at strengthening AMS programs to play a key role in preventing and containing AMR. MTaPS also supported and facilitated an AMS CME in collaboration with the JOOTRH AMS committee for 50 participants. The AMS committee shared preliminary findings of a JOOTRH antibiogram that has been under development since last year. The purpose of the antibiogram is to guide antimicrobial prescribing through various AMS clinical interventions. The development of this antibiogram will enable improvements with implementation of interventions such as restriction of antimicrobial use and strengthened microbiology diagnostic capacity of the hospital laboratory.

MTaPS also supported AMS CME sessions in other counties and trained 22 participants from Murang'a CRH; 33 from Kilifi CRH; and 56 from Nyeri county (30 from Karatina Subcounty Hospital and 26 from Othaya Subcounty Hospital).

MTaPS continued to offer technical support to JOOTRH in the development of a hospital formulary which is at an advanced stage of completion and expected to be launched in January 2022. The formulary will play a key role in guiding appropriate prescribing of antimicrobials to manage infections.

In Nyeri county, MTaPS and the County Health Department carried out supportive supervision and mentorship in eight health facilities to monitor implementation of AMS CQI action plans. These activities aimed at strengthening AMS programs to play a key role in preventing and containing AMR. Onsite mentorship was undertaken on use of the CQI tools.



MTaPS staff holding a mentorship session with AMS committee members during a supportive supervision at Mt. Kenya Subcounty Hospital in Nyeri county. (Photo credit: Irene Muchoki, MTaPS)

In Murang'a and Kilifi counties, MTaPS and the County Health Departments carried out supportive supervision and mentorship in two health facilities per county to monitor implementation of AMS CQI action plans. These supervision and mentorship activities are aimed at strengthening AMS programs in facilities to play a key role in preventing and containing AMR.

AMS publications

In collaboration with IPNET Kenya, the MTaPS team supported four technical staff from the focus counties to attend a scientific writing workshop. The workshop aimed at building capacity of technical officers from various counties on scientific abstract writing. The initial cohort of trained officers will provide a useful platform for documentation of AMS success stories and abstracts using their own data and experiences.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Continue strengthening NASIC's capacity for coordination, policy direction, and M&E of the national AMR plan • Implement AMR national action plan M&E framework • Provide technical support for CASIC review meetings • Disseminate AMR documents • Produce quarterly or biannual AMR bulletin or newsletter	Jan-Mar 2022
Activity 2.1.1: Continue strengthening governance for IPC at the national, county, and facility levels • Finalize and disseminate IPC M&E framework • Finalize review of national IPC guidelines • Develop dissemination package for IPC policy and IPC strategic plan • Produce high-level flyer/communique/brief on IPC • Strengthen CIPCAC operations in target counties (Kilifi, Murang'a, Nyeri, Kisumu)	Jan-Mar 2022
Activity 2.2.1: Provide technical assistance to implement a CPD- and relicensure-linked in-service IPC training course for delivery through professional associations • Strengthen IPC CPD implementation through professional associations	Jan-Mar 2022
Activity 2.5.1: Support county-, sub-county-, and facility-level IPC/OSH/WASH activities • Implement OSH, including OSH training and sensitization • Strengthen CQI implementation for IPC at facilities	Jan-Mar 2022
Activity 3.1.1: Strengthen national and county AMS governance structures • Conduct MTC/AMS trainings for target AMS teams in counties (Murang'a, Kilifi)	Jan-Mar 2022
Activity 3.1.2: Support the national MTC in institutionalizing and implementing AWaRe categorization of antibiotics • Finalize, launch, and disseminate a national medicines formulary incorporating the AWaRe concept • Initiate development of a practical guide for AWaRe implementation in target facilities	Jan-Mar 2022
Activity 3.2.1: Develop health care human resource capacity to manage AMS through pre- and in-service trainings • Implement AMS CPD activities for Pharmaceutical Society of Kenya and Kenya Pharmaceutical Association	Jan-Mar 2022
Activity 3.5.1: Support county, sub-county, and facility-level AMS activities • Implement AMS CQI action plans (Nyeri, Kisumu, Murang'a, Kilifi) • Implement AMS guidelines in health care facilities (Nyeri, Kisumu, Murang'a, Kilifi)	Jan-Mar 2022

MALI - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

Activity 1.1.1: Provide technical and operational support to the GCMN-RAM and its two subcommittees (IPC and AMS)

MTaPS held three meetings with the (SDHPS-DGSHP, the Faculty of Medicine, and the National AMR Focal Point respectively. The main objective of these meetings was to present the project year 4 work plan and approaches for its implementation. During these meetings, participants addressed the following major points:

- The approach to develop the national IPC strategic plan
- The approach to increase access to the eLearning courses by students at the faculty of medicine
- The reallocation of funding sources to activities

Participants agreed to carry out the following actions:

- The SDHPS-DGSHP will approve the recruitment of consultant to develop the national IPC strategic plan
- The dean of the university recommended holding a meeting to discuss the establishment of a committee of lecturers to increase students' access to the eLearning IPC courses and respond to any questions from students
- WHO will organize a workshop to prioritize activities in the NAP-AMR and MTaPS will fund the review of the NAP-AMR and its M&E plan

RESULT AREA 2: INFECTION PREVENTION CONTROL

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

MTaPS supported the IPC TWG through the DGSHP to conduct supervision visits of IPC activities in 15 health facilities. The supervisory visits found that the IPC committees at 11 of the 15 facilities meet at least once every six months and take meeting minutes, and seven of the 15 facilities have implemented at least 50% of activities of their respective action plans. They also found that there are inadequacies in the sorting of waste in some facilities, and facilities had relaxed measures to triage visitors at the entrance. Recommendations were made to the facilities to triage visitors at their entrances and raise awareness among health personnel about waste sorting.

The scorecard assessment results are summarized in the table below:

Table 19. Scorecard Assessment Results

Facility	Assessment 1	Assessment 2	Assessment 3
Hospital of Point G	57%	60%	86%
Hospital Luxembourg	74%	81%	83%
Hospital of Kati	83%	88%	95%
Hospital of Mali Gavardo	69%	83%	
Kangaba district healthcare facility	50%	69%	83%
Bougouni district healthcare facility	64%	71%	76%
Hospital Fousseyni Daou of Kayes	71%	79%	79%
Kalabancoro district healthcare facility	74%	79%,	81%
Hospital of Sikasso	90%	90%	83%
Koutiala district healthcare facility	81%	83%	79%
Hospital of Ségou	86%	86%	
Hospital of Mali	90%	93%	90%
Dermatologic hospital of Bamako	83%	71%	
Gabriel Touré university teaching hospital	93%	90%	
Kenieba district healthcare facility	76%	81%	67%

The data from the HH Self-Assessment Framework showed that 12 of the 15 facilities have reached the intermediate level, compared to just three facilities at the first assessment. Additionally, three facilities reached the advanced level.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.5.1 (FY21): Support the GCMN-RAM, DPM, and ANEH to establish DTCs in 11 new sites

As part of its support to the GCMN-RAM, DPM, and the National Hospital Evaluation Agency (ANEH) to establish DTCs in 11 new sites, MTaPS supported training sessions for DTC members from the remaining four facilities. This included two training sessions in Bamako (Gabriel Touré University Teaching Hospital and Hospital of Mali) and two at the peripheral level (Kalabancoro and Kangaba). During these sessions, 49 DTC members (including nine female members) were trained to implement the AMS activities in their respective DTCs. During the training sessions, each facility developed a CQI plan to implement AMS practices.

After training sessions held from October 25-29, 2021, MTaPS recorded and analyzed data on antibiotics prescriptions. This analysis found that only two facilities out of four (Mali Hospital and Gabriel Touré Teaching Hospital) met the goal of 60% of prescribed antibiotics classified under access according to the WHO AWaRe classification of antibiotics. The other two facilities are each at 30%. Additionally, only Gabriel Touré Teaching Hospital met the goal of more than 50% of patients who can correctly state the instructions and dosage for antimicrobial prescriptions. To address these weaknesses, MTaPS recommended that the facilities implement their respective action plans as part of CQI of AMS.

EBOLA RESPONSE ACTIVITIES

HUMAN RESOURCES FOR HEALTH, TRAINING, SUPERVISION

Support coordination mechanisms, working groups, stakeholders

On October 22, 2021, MTaPS supported the IPC subcommittee to hold a virtual meeting to review the implementation of the IPC sub-committee's activities, review the implementation of the Ebola virus disease (EVD) response activities, and carry out the mapping of IPC interventions. A total of 19 participants from the SDHPS-DGSHP, ANEH, Regional Health Directorate (DRS) Kayes, CSRéf Kenieba, DRS Koulikoro, CSRéf Kati, Terre des Hommes, World Vision, International Medical Corps (IMC), UNICEF, WHO, and MTaPS participated in the meeting. In addition to the presentation of MTaPS' support to the SDHPS-DGSHP to organize the workshop and to update and develop the SOPs, training modules, and procedure manual on biomedical waste management, Terre des Hommes, IMC, UNICEF, DRS Kayes, and CSRéf Kenieba presented on their accomplishments. MTaPS, Terre des Hommes, IMC, and World Vision also presented their IPC activities for the next quarter.

Regarding EVD response activities, MTaPS, UNICEF, CSRéf Kenieba, DRS Koulikoro, and CSRéf Kati presented on their accomplishments. MTaPS presented on its support to organize a virtual coordination meeting of the IPC subcommittee in September 2021. MTaPS and DRS Koulikoro also presented on their planned activities for the next quarter.

The mapping of activities could not be completed because the preliminary working session initially planned at the SDHPS-DGSHP could not take place. In addition to the presentations made, participants also addressed the following issues:

- The scorecard tool is routinely used in few health facilities in Mali
- There is a lack of mapping of IPC activities in Mali
- Failure of both the community and health workers to observe COVID-19 prevention measures

To address these issues, participants recommended the following actions:

- Enforce the use of the scorecard tool in health facilities nationwide
- Organize a meeting at the SDHPS-DGSHP to work on the mapping of interventions

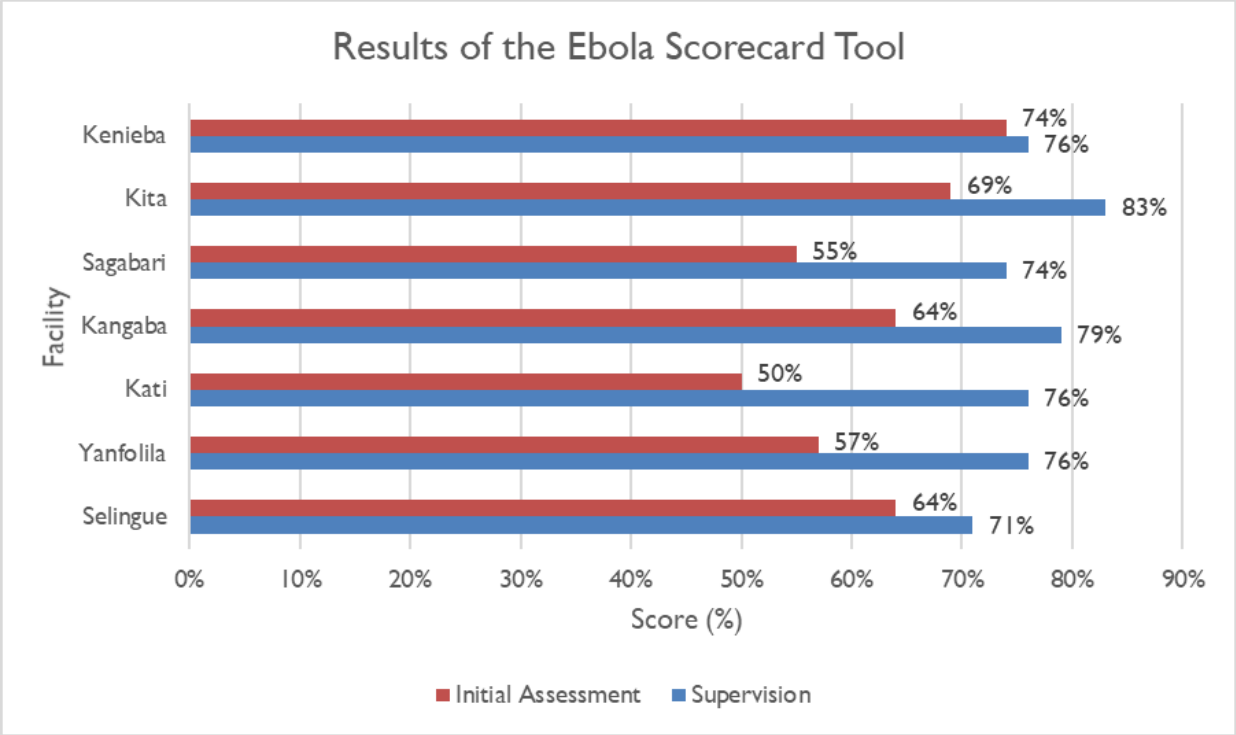
- Continue to sensitize the population and health workers on compliance with COVID-19 prevention measures

Monitoring and Supervision

MTaPS supported the SDHPS-DGSHP to organize and conduct Ebola supervision visits to the seven health facilities (Kenieba, Kita, Sagabari, Kati, Kangaba, Sélingue and Yanfolila) in target health districts using the Ebola scorecard tool. The results of these supervision visits (see figure 5 below) show that:

- Five out of seven CSRéfs have improved their IPC practices, with scores higher than 75%
- All of the seven supervised CSRéfs have started the implementation of their action plans with completion rates ranging from 12% to 56%

Figure 5. Results of the Ebola Scorecard Tool



Following the shortcomings observed, the supervisors made the following recommendations:

- Continue the implementation of the IPC/Ebola action plan of the CSRéfs
- Increase awareness of waste sorting among healthcare staff in the CSRéfs
- Perform the self-assessment with the IPC Ebola Scorecard tool as recommended by the supervisors based on the scores obtained
- Set up a functional triage system for users at entry points in the five CSRéfs (Kéniéba, Kita, Sagabari, Sélingue and Yanfolila) that did not have a system in place

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
GHSA	
Activity 1.1.1: Provide technical and operational support to GCMN-RAM and its two subcommittees (IPC and AMS).	Jan-Mar 2022
Activity 1.1.2: Review the NAP-AMR and its M&E plan: Recruitment of consultant	Jan-Mar 2022
Activity 2.1.1: Support GCMN-RAM in developing a national IPC action plan for the human health sector: Recruitment of a consultant for the development of the national IPC strategic plan	Jan-Mar 2022
Activity 2.5.1: Support GCMN-RAM and SDHPS-DGSHP in monitoring implementation of IPC practices at health facilities	Jan-Mar 2022
Activity 2.5.2: Strengthen capacity of three local training institutions to manage eLearning on IPC and AMS for pre-and in-service health care workers: Purchase UPS for the SDHPS-DGSHP server hosting the eLearning platform	Jan-Mar 2022
Activity 3.5.1: Support DPM in developing and disseminating DTC training toolkit: Reproduce the treatment guidelines for infectious diseases	Jan-Mar 2022
Activity 3.5.2: Support GCMN-RAM, DPM, and ANEH in monitoring the functionality of DTCs in 16 facilities	Jan-Mar 2022

MOZAMBIQUE - QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

In Mozambique, MTaPS is facing a challenge of lack of funding for non-PEPFAR activities for program year 4. This will negatively affect MTaPS' support for regulatory systems strengthening (RSS) in Mozambique and will stop continuation of the following RSS and MIS activities in Y4, hence affecting the goal of providing assistance to the regulatory authority ANARME, PI to achieve maturity level 3 according to the WHO GBT:

- Activity 1.1.1: Support transformation of the DNF to an autonomous authority, ANARME, PI, through establishment of an effective regulatory framework
- Activity 2.1.1: Enhance DNF MIS by modifying Pharmadex to improve medicines registration and regulatory inspection processes

MTaPS is working with the Mission to explore opportunities for additional funding under the FP/MNCH area; communicate this funding change to the main beneficiary, the ANARME, PI; and develop a joint transition plan to wrap up RSS and MIS activities with adequate handover of tools and capacity by MTaPS to the ANARME, PI. MTaPS and the Mission are organizing a meeting with the Mission's MNCH leads to discuss the issues mentioned above. MTaPS has prepared detailed information for the transition plan, including the key findings from the 2020 mapping of registration of MNCH medical products in Mozambique, MTaPS' support in RSS to date in Mozambique, current status of supported activities, achievements and their alignment with WHO GBT maturity level requirements, the activities' contributions to MNCH goals/priorities, the impact of ending MTaPS' support, and proposed next steps for the transition. MTaPS has drafted a presentation to the Mission to clarify the support provided by MTaPS and results accomplished to advance health outcomes for MNCH and other disease areas such as TB, malaria, and FP services. Without MTaPS' support to the regulatory system in Mozambique, the ANARME, PI, may not readily achieve maturity level 3 and may face the following gaps:

- The planned score according to the WHO GBT for some of the regulatory functions of the ANARME, PI, will not be achieved
- Important regulations and guidelines required to meet the GBT indicators will not be developed and will delay the establishment of an efficient regulatory framework for effective delivery of regulatory services
- Incomplete implementation of a quality management system required for efficiency and consistency in delivery of regulatory services, which is a critical component for achieving a score of 100% for regulatory system functions

- Incomplete digitalization of regulatory functions using Pharmadex to secure sizable gains in information management for efficiency and transparency

These gaps will affect the ability of the ANARME, PI, to improve assurance of the safety, efficacy, and quality of medicines and other health products, as well as the provision of available accurate and appropriate drug information to the public.

Activity 1.1.1: Support transformation of the National Directorate of Pharmacy (DNF) to an autonomous authority, ANARME, through establishment of an effective regulatory framework

During this quarter, MTaPS finalized the regulation on the distribution, import, and export of medical products as requested by the ANARME, PI. This regulation covers GDP; provisions for import and export processes for medical products, vaccines, and biological products; and provisions for transportation and cold chain. This regulation expands on Law 12/2017, allowing the ANARME, PI, to further regulate the pharmaceutical sector by securing the pharmaceutical supply chain to ensure the quality and safety of medical products from manufacture through distribution channels to the end user. The regulation will also assist in regulating the pharmaceutical sector, primarily wholesalers and distributors, on the minimum standards to ensure the quality and integrity of medicines throughout the supply chain. It includes a GDP guideline annex to ensure compliance with regulatory provisions and reinforce the establishment of an effective regulatory framework to control the medical product distribution chain and ensure drug quality.

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

Activity 2.1.1: Enhance DNF management information systems by modifying Pharmadex to improve medicines registration and regulatory inspections processes

In the previous quarter, MTaPS configured the import module in Pharmadex and installed it on the Amazon web server to be tested and deployed. During this quarter, MTaPS worked on finalizing reports on approval and final deployment of the import certification and functionality to allow the ANARME, PI, to issue import licenses via Pharmadex; the system requirements specifications document and source code for the premises licensing module in Pharmadex; the modified MA module in line with WHO and SADC guidelines; and operation of Pharmadex, including its updated source code, user manual, and training materials. The reports are undergoing editorial review prior to submission to the Mission. The modified registration module meets requirements for enhancing Pharmadex to follow the common technical document format for evaluating MA dossiers to ensure that product registration conducted by the ANARME, PI, using Pharmadex will be in line with WHO/SADC guidelines.

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

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

Support to ANARME, PI, for improvement of capture of enrolled patient follow-up visits

During this quarter, MTaPS continued to provide technical assistance to implement an active surveillance system for the ART regimen TLD. MTaPS is working with the ANARME, PI, to increase patient follow-up visits and AEreporting. MTaPS supported the ANARME, PI, to make calls and onsite visits to provide guidance to the study's nine implementing HFs to increase the number of follow-up visits. With these interventions, the number of patient follow-ups increased from 4,920 to 7,447.

MTaPS also supported the ANARME, PI, to develop and review an improvement action plan to improve the follow-up of enrolled patients. The plan indicates the number of patient follow-ups yet to be concluded by the staff of the implementing HFs and proposes using existing HR, who can be oriented by the HF PV focal persons, to support patient follow-up through phone calls. The HF focal persons will report to the ANARME, PI, focal persons. This plan includes a discussion with the staff of implementing HFs to collect information on existing and additional needed HR who can be trained to support the implementation of the improvement plan, such as exploring the possibility of using data clerks to support the HFs in this regard. This will enable the collected data to be cleaned and analyzed in a timely manner. The plan includes daily checks for control and monitoring of implementation and keeping a daily record of the progress of follow-up calls and visits. The plan was presented and discussed with the ANARME, PI. MTaPS will support the ANARME, PI, to review the action plan implementation progress report with a focus on follow-up of enrolled patients.

Plan implementation to date has included:

- Through phone calls, information has been collected relating to existing human resources at the HF who can support enrolled patient follow-up and completion of physical follow-up forms, such as counselors who could be trained to support patient follow-up through phone calls
- Collection of information on the number of physical follow-up forms already completed per enrolled patient
- Identification of the number of completed online follow-up forms per patient in the PViMS and planning with the HF for the best approach for entry of missing forms into PViMS

The improvement in capturing follow-up visits will allow better data collection on the occurrence of AEs; occurrence of new or worsening AEs, including any treatment for managing the AE; and the use of other medicines since the patient started on TLD.

Support to ANARME, PI, and the HIV program to conduct supervisory exercises

MTaPS supported the ANARME, PI, and HIV program to undertake supervisory phone calls to the nine participating HFs—Carmelo HCand Macia HC in Gaza province; Namacurra HC in Zambezia province; Machava II HC and Ndlavela HC in Maputo province; Mavalane HC in Maputo City; Cuamba HC in Niassa province; Gondola district hospital in Manica province; and Marrere hospital in Nampula province—to increase usage of PViMS (entry of missing data/forms) and evaluate the HFs' progress on ensuring patient follow-ups and completion of the follow-up form. As a result of the supervisory calls, problems with the organization of forms were identified in some HFs, such as Macia HC, Machava II HC,

Ndlavela HC, and Carmelo HC. These problems contributed to the differences between the data found in PViMS and the reported number of completed hard copy data collection forms previously indicated by the focal persons. Therefore, an effort was made by the central level core team to support the teams of these HFs to improve the organization, recount the forms, and provide refresher training sessions to improve the use of PViMS by the focal persons. The supervisory phone calls complement the onsite supervisory visits and allow follow-up with the focal points of the HFs regarding improved patient follow-ups and completion of the data collection forms. The supervisory phone calls also allow identification and resolution of problems with data entry into PViMS.

Also during this quarter, MTaPS supported the ANARME, PI, and HIV program to undertake a second round of onsite supportive supervisory visits at three HFs—Ndlavela HC and Machava II HC in Maputo province and Mavalane HC in Maputo City. The activity was coordinated with the Provincial Directorate of Health and Maputo City Health Directorate. The supervision team comprised an ANARME, PI, PV focal person and provincial HIV and PV focal persons. The supervision visits allowed the ANARME, PI, and HIV program to support the staff of the implementing HFs to refresh their knowledge of the study protocol and discuss implementation status, improve physical archiving and data entry into PViMS, undertake progress reviews, and develop an action plan with ways to improve data quality and overcome challenges.

Patient enrollment and follow-up status

Table 20 provides a breakdown of enrolled patients, follow-up visits, and AEs through December 2021.

There were 3,169 patients enrolled in the active safety monitoring program; 7,447 follow-up visits had been recorded; and 88 AEs were reported, all of which were mild.

Table 20: Patients enrolled since start of active surveillance system through December 2021

Health Facility	Month enrollment commenced	No. of enrolled patients as of Dec 2021 (Form A)	No. of follow-ups as of Dec 2021 (Form B)	No. of enrolled patients as of Dec 2021 (Form C - birth outcome and newborn screening)	No. of AEs reported as of Dec 2021
Carmelo	March	310	1,000	1	6
Cuamba	April	319	295	42	23
Machava II	April	342	1,197	3	8
Macia	April	412	780	31	8
Mavalane	April	364	1,231	23	0
Namacurra	March	434	402	6	12
Ndlavela	May	300	227	1	13
Gondola	March	338	1,195	20	6
Marrere	March	350	1,120	21	12
Grand Total		**3,169**	**7,447**	**148**	**88**

Activity 3.1.2: Develop and implement an active pharmacovigilance program for safety monitoring of TB Preventative Treatment (TPT) scale-up in Mozambique

MTaPS continued to provide technical assistance to establish an active surveillance system for) TPT implementation. During this quarter, an approval letter from the Bioethics committee was translated into English by an official translator and shared with USAID and the CDC. MTaPS has received and reviewed comments on the TPT study protocol from US CDC HQ and addressed the comments on the protocol and SOPs. A validation exercise with USAID and CDC Mozambique colleagues was conducted to review the proposed adjustments to the protocol in response to the queries from the CDC HQ reviewers, and a comprehensive response was submitted to the reviewers.

MTaPS also worked with the ANARME, PI, in coordination with the Maputo City Health Directorate to select Mavalane HC in Maputo City as the pilot site for the TPT study data collection forms.

The review of the protocol in response to CDC HQ reviewers and the piloting of the data collection forms will increase the validity of the scientific and analytical rigor of the study and guide the implementation of the study and study procedures.

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

Activity 1.1.1: Support the governance and organizational capacity of the AMR MCC

Contribution to the organization of and participation in a symposium for WAAW

During this quarter, MTaPS worked with the Government of Mozambique and other partners to contribute to the organization and conduct of the 2021 symposium for WAAW November 18–24, 2021. The November 24, 2021, symposium showcased the AMR multisectoral MCC's accomplishments. It was organized and conducted by several organizations, including the National Institute of Health; ANARME, PI; National Directorate of Public Health; Hospital Therapeutics Department; National Directorate of Agricultural Health and Biosafety; National Directorate of Livestock Development; Faculty of Veterinary Medicine; Eduardo Mondlane University; WHO; FAO; and MTaPS.

The aim of this symposium was to inform, debate on, and increase understanding and awareness of AMR at the national level and to encourage the adoption of best practices among the general public, human and animal health professionals, policy makers, and decision makers to prevent the emergence and spread of drug-resistant infections. Given the meeting restrictions resulting from the COVID-19 pandemic, the symposium was a hybrid format, with some presenters and participants physically present at the venue and others attending virtually.

The NAP-AMR and advances and challenges in implementing the One Health approach to surveillance and control of AMR in Mozambique were presented during this symposium. The main message was the need to coordinate and perform the activities across the various sectors of human, animal, and environmental health, given that the One Health approach is on paper, but in reality, different players are working in isolation. Investigators from human and animal health presented their work on the

epidemiology of bacterial AMR and on antimicrobial consumption and the need for concerted efforts to fight AMR.

MTaPS provided technical assistance and capacity building during the symposium, presenting on "Implications of Antibiotic Use during the COVID-19 Pandemic". After the MTaPS presentation, panelists from three supported provincial hospitals for AMS activities—Inhambane, Tete, and Lichinga—described their hospital AMS activities during the COVID-19 pandemic. In plenary, a key issue discussed was the overuse of antimicrobials reported in the hospitals managing COVID-19 patients. The plenary discussion produced the following conclusions:

- There is a lot of good research data produced in the human and animal sectors in Mozambique on AMS/AMR, but institutions are working in isolation rather than following the One Health approach
- There is a need to design guidelines in alignment with international recommendations considering the current context in Mozambique
- To comply with the One Health approach, there is a need to work collaboratively on AMS

MTaPS also provided logistics support, including production of a banner and a TV spot for publicity about this event to attract as many participants as possible. MTaPS' support for WAAW aimed at improving coordination among stakeholders and contributed to building capacity for a functional governance system for the national response to combat AMR with a One Health approach in line with implementation of the NAP-AMR.

Figure 6. WAAW 2021 banner developed with MTaPS' support

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.2.1: Support the national IPC TWG in IPC oversight and management

Build the capacity of provincial health authorities to deliver IPC trainings to health facilities

During this quarter, MTaPS worked on a plan to implement TOT workshops. The goal of these workshops is to build the capacity of provincial health authorities to deliver IPC training to HFs that

have never been trained on IPC or that need refresher training. MTaPS developed a presentation on the approach for the TOT, the TOR, the agenda, and a logistics plan for the activity. MTaPS led discussions to ensure consensus and adoption of these approaches and plans in collaboration with the IPC TWG and National Directorate of Medical Assistance. During a meeting on December 22, 2021, this group also agreed on the proposed participants, facilitators, and MOH authorization of the activity. The National Directorate of Medical Assistance's authorization letter for the activity has been submitted and is awaiting signature. The aim of this activity is to train 60 provincial health professionals as trainers on general and COVID-19-related IPC standards, strengthen the capacity of provincial IPC teams, and develop a plan for the provincial focal persons and other trained personnel to cascade the training to HFs.

The TOT will take place in three locations and will cover all 11 provinces across three regions: South (Xai-Xai City February 7–12, 2022), Central (Beira City January 24–28, 2022), and North (Nampula City February 14–18, 2022). For each region, two facilitators will come from the central level and one—the IPC focal point—from the local level. The five-day TOT will provide information about the IPC Framework tool and five modules of the HH Self-Assessment Framework tool: basic precautions during procedures, basic precautions applied to the HF environment, basic precautions applied to instruments, additional precautions, and support for IPC implementation.

MTaPS' technical support to build the capacity of provincial health authorities to deliver IPC training to HFs will contribute to reducing health care-associated infections in the HFs and the spread of AMR in the country.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZE

Activity 3.5.1: Support the design and implementation of AMS interventions in priority health facilities

Coordination meetings with the MOH for implementation of AMS activities

Technical assistance visits to hospitals for AMS activities were undertaken virtually because of the pandemic. Five provincial hospitals (Xai-xai, Inhambane, Chimoio, Lichinga, and Tete) were visited virtually to assess the status of the AMS/AMR committees. An anonymous AMS knowledge, attitude, and practice survey was disseminated in three hospitals as part of MTaPS' ongoing technical assistance to better understand the specific context in each hospital. One survey was designed for physicians and another was intended for pharmacists, nurses, and other hospital staff. Despite three reminders and follow-up phone calls with hospital authorities, only 14 of 39 and 12 of 47 responses were received, respectively. MTaPS intends to follow-up with the three hospitals to encourage invited health workers to complete the survey. Antibiotic consumption data for a one-year period were obtained from these hospitals, with initial analysis of the consumption data being undertaken for Xai-xai Hospital.

Given the delays in activity implementation, MTaPS requested a coordination meeting with the MOH to discuss how to undertake AMS activities in a timely way. This meeting was held on November 18, 2021, with the objective to find a solution to the delays in HF visits, identify those responsible for conducting hospital activities, and developing a coordination plan with timelines. During the presentation on the background of AMS activities, it was clarified that these activities should be carried out at the central

level and in HFs, working at central level with the ANARME, PI, and the AMS TWG. As the Hospital Pharmacy Department oversees AMS activities in HFs, it was agreed that it is one of the institutions to work with in implementing AMS activities in hospitals. The meeting proposed further discussion with various stakeholders dealing with AMS activities in Mozambique. As such, this will be an agenda item for the next coordination meeting.

During the meeting, participants discussed the implementation of FY22 AMS activities and concluded that there is a critical need to finalize the rapid assessment of stewardship policies and the draft national AMS action plan. On the topics of AMS TWG functionality and the need for regular meetings and reporting to the AMR MCC secretariat, MTaPS explained that the ANARME, PI, AMS TWG, and MCC secretariat all act at the national level with roles in strategic policy and leadership. As such, these entities need to delegate responsibility for implementation of lower-level AMS activities and provide national-level oversight of hospital-based AMS activities. MTaPS highlighted the importance of involvement and leadership of the ANARME, PI, on the AMR MCC, especially in organization of meetings; mapping of AMR stakeholders, activities, and domestic funding gaps; and the NAP monitoring framework. The ANARME, PI's involvement will be required for successful implementation of the WHO-recommended AWaRe classification of antibiotics; facilitating the process of inclusion of a provision on the use of antimicrobials in existing regulations; and overseeing implementation of AMS interventions in priority HFs.

At the national level, MTaPS supported a review of policies and regulations for AMS, the report of which has undergone validation by the ANARME, PI, and INS, and the development of a draft national AMS action plan. The AMS rapid assessment of legislation, policy, and regulation was completed and validated. An AMS NAP is under development.

MTaPS' support for AMS at the national and HF levels will contribute to reducing AMR through the prudent use of antimicrobials.

Core MNCH-Funded Activities

During this quarter, MTaPS conducted capacity building for assessment of BE studies for the ANARME, PI. Assessment of BE studies is crucial for the registration of oral generic medicines, many of which are for MNCH conditions, to ensure that they are comparable to the branded innovator product. This virtual training took place in Maputo City October 20–22, 2021, and was facilitated by a consultant from Uganda with simultaneous translation from English to Portuguese and moderated by a consultant from Maputo. A total of 13 participants (9 female, 4 male) attended.

The training method was participatory, practical, and scenario-centered and focused on capacity building for assessment of BE studies as a part of the evaluation of MNCH generic oral medicine dossiers. It relied on exercises and group discussions after an overview and brief introduction led by the consultant and included recaps and daily assessments for improvement of subsequent sessions.

As evidenced by the discussions and post-test evaluation results (from an average score of about 40% to over 80%), the capacity building session increased skills and knowledge of ANARME, PI, medicines registration personnel to review, write a scientific assessment report, and analyze and draw conclusions on data submitted on applications for registration on assessment of BE studies. There is also evidence of

absorption of training aimed at increasing capacity to utilize regulatory decisions made by other reference national or international regulatory authorities. All participants agreed that the training would be useful in their work and that the materials used were helpful. In addition, the ANARME, PI, was satisfied with the training. Capacity building for ANARME, PI, personnel in specialized areas and optimization of the registration process, such as the capacity building for assessment of BE studies, will facilitate efficiency and transparency in the registration system, thus increasing access to MNCH medicines in the country.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Mission Funded Activities	
Activity 1.1.1: Support transformation of DNF to an autonomous authority, ANARME, through establishment of an effective regulatory framework • Undertake workshop to disseminate and implement approved law, regulations, and guidelines on medical products • Develop technical report summarizing key processes and lessons learned while supporting the transformation of DNF into ANARME, PI • Build capacity of DNF regulators on GRP guidelines, including leadership and communication • Conduct quality management system quality audit to determine readiness for ISO 9001:2015 certification	Jan–Mar 2022
Activity 2.1.1: Enhance DNF management information systems by modifying Pharmadex to improve medicines registration and regulatory inspections processes • Follow up with ANARME, PI, regarding the promised optimal internet, which will enable transition and handover of Pharmadex to ANARME, PI • Finalize configuration of the workflows in the new version for medicines registration and import licenses • Develop handover plan for Pharmadex to ANARME, PI	Jan–Mar 2022
Activity 3.1.1: Provide technical assistance to establish an active surveillance system for newly introduced medicines in HIV and TB programs • Support ANARME, PI, and implementing HFs to complete the one-year follow-up of all enrolled patients using the ongoing improvement implementation plan • Support ANARME, PI, to conduct monthly supervisory calls and third-round supportive supervision visits • Continue to provide guidance to ANARME, PI, and HIV team to manage the data on PViMS, including periodic review, cleaning, and analysis of all collected data	Jan–Mar 2022
3.1.2: Develop and implement an active pharmacovigilance program for safety monitoring of TPT scale-up in Mozambique (New Activity) • Pilot the data collection forms at the five selected sites	Jan–Mar 2022

Activity and Description	Date
• Train ANARME, PI, and TB and HIV program staff on the protocol, SOPs, and checklists • Support ANARME, PI, and TB and HIV program staff to cascade the training to health care providers at the five selected sites that will be implementing the active surveillance • Start enrolling patients and collecting data at the five selected sites	
GHSA	
Activity 1.1.1: Support the governance and organizational capacity of the AMR multisectoral coordination committee (MCC) • Support AMR MCC secretariat in organizing regular meetings • Facilitate updated mapping of AMR stakeholders and activities • Advocate for budgeting of all AMR MCC activities in ministries to ensure that AMR MCC meets its mandate • Provide advice to the AMR MCC secretariat on oversight of the TWGs on IPC; AMS; and knowledge, attitude, and practice	Jan–Mar 2022
Activity 2.2.1: Support the national IPC committee in IPC oversight and management • Build the capacity of provincial health authorities to deliver IPC trainings to health facilities • Support the IPC TWG in organizing routine meetings and providing suitable updates to the AMR MCC secretariat • Review implementation status of the national IPC action plan developed by the IPC TWG in Y3	Jan–Mar 2022
Activity 2.5.1: Support implementation of prioritized IPC interventions in selected health facilities • Provide support to conduct HH self-assessments and design suitable interventions • Build on IPC training efforts implemented during response to COVID-19 and design a capacity-building program • Ensure that the IPC committee repeats the IPC Assessment Framework health assessment	Jan–Mar 2022
Activity 3.1.1: Support development of AMS policies at the national level *Undertake AWaRe classification:* • Under the aegis of the AMS TWG and the EML committee, establish a committee responsible for initiating the process of AWaRe classification • Implement the methodology as outlined in the WHO AWaRe classification approach and in the MTaPS-developed mini-guide on the AWaRe classification approach • Integrate the AWaRe classification with the EML, which is currently being revised by the ANARME, PI	Jan–Mar 2022

Activity and Description	Date
• Develop templates for health facility reporting of antimicrobial use based on the AWaRe classification to enable hospital AMS committees and national authorities to monitor progress *Include a provision on appropriate use of antimicrobials in existing regulatory framework for medicines:* • Review existing national regulatory framework on appropriate use of medicines supported by the MTaPS FS work plan to strengthen the medicine regulatory system *Draft regulation on prescription-only sales of key antibiotics:* • Assess existing legislation on pharmaceuticals, building on efforts supported by the MTaPS FS work plan, which aims to strengthen the medicine regulatory system; identify a provision for inserting a regulation on prescription-only sales of key antibiotics	
Activity 3.5.1: Support design and implementation of AMS interventions in priority health facilities • Provide on-site technical support for AMS and IPC interventions • Conduct antibiotic use studies to identify targets for stewardship • Support implementation of the AWaRe classification in HFs	Jan–Mar 2022

NEPAL - QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

MTaPS worked on the following key activities and deliverables during the reporting quarter:

- Finalized the job description format and draft job descriptions for key positions
- Updated the drug law to ensure inclusion of all legal recommendations from the GBT's assessment and increase DDA's roles and responsibilities
- Listed all regulations, codes, and guidelines that need to be updated in line with the legislative revision and initiated updating the Codes on Sales and Distribution
- Initiated the development of the policy option analysis, targeting the updating of the Nepal Medicines Policy (NMP)

Activity 1.1.1: Assist DDA in organizational restructuring

MTaPS finalized the year 3 deliverable of preparing job descriptions for seven key positions in the reorganized structure of DDA. MTaPS developed the job descriptions in collaboration with DDA and shared these documents with USAID. Additional job descriptions are being drafted, following the agreed format to cover all positions in the present-day DDA.

Activity 1.2.1: Update drug act, regulations, rules, and guidelines

This quarter, MTaPS continued to support the update of the drug law for increased DDA roles and responsibilities and to increase DDA's maturity level. MTaPS organized several consultation meetings with the legal core group to finalize the updated drug law and ensure that all legal recommendations from WHO's GBT assessment are included in the amended drug law. To prepare the updated law for submission to MOHP, DDA formed a committee under the chairmanship of the director general, along with a representative from the Ministry of Law and Parliamentary Affairs, the chief of MOHP's Legal Section, others from DDA, and MTaPS' national and international legal experts. The aim is to have the new law finalized by mid-January for submission to the Council of Ministers along with MTaPS' drafted concept note.

Moreover, MTaPS drafted a list of rules and guidelines that will need to be updated as soon as the new drug law is promulgated. The updating work has started, focusing on regulations, guidelines, and codes that can be updated under the existing drug act. The Codes on Sale and Distribution of drugs has been updated to include mandatory requirements, GPP, and GDP for pharmacies, wholesalers, and importers. Implementation of the new codes will bring clarity, and the new drug law will help streamline regulation of health products under DDA's mandate while also improving their safety, quality, and efficacy.

Activity 1.2.2: Revise and update the NMP

After the concept note on the update of the NMP was approved, an international and a local consultant were hired to support a policy options analysis. A virtual meeting was organized on December 14, 2021, between international and local consultants and the MTaPS team to discuss development of the NMP and prepare a stepwise plan. TOR for the TWG were drafted and a list of thematic areas, potential members, and templates for the thematic reports were proposed. Thematic discussion and development of the policy option analysis will be continued in the upcoming quarter to update the NMP and bring it in line with the proposed new drug law and the updated health policy.

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY TO REGULATE MEDICINES, FAMILY PLANNING COMMODITIES, AND HEALTH TECHNOLOGIES INCREASED

MTaPS worked on the following key activities and deliverables during the reporting quarter:

- Developed and updated the MALAP based on the WHO GBT assessment
- Finalized the GPP guidelines and inspection tool for public and private sector pharmacies and adapted them as electronic tools; drafted an implementation strategy
- Piloted the draft, new GDP guidelines and inspection tool for wholesalers and importers; developed an implementation strategy
- Drafted the DDA QMS manual and SOP for DDA functions toward ISO 9001:2015 certification

Activity 2.2.1: Strengthening regulatory capacity and maturity

MTaPS led a discussion on and finalized the DDA MALAP with the DG of DDA, WHO, and senior managers from DDA, the National Medicines Laboratory, and Promoting the Quality of Medicines Plus program. The MALAP covers two years; the first year (July 2021-July 2022) targets maturity level 2 and the second year (August 2022-July 2023) targets maturity level 3. The MALAP was put on a shared folder for easy access and update by involved organizations. MTaPS shared the TOR for the proposed TWG on regulation strengthening with the DDA and WHO. MALAP is updated regularly, with the latest update on December 17, 2021. These updates will assist DDA in achieving the target on increasing the regulatory maturity level.

Activity 2.2.2: Strengthen regulatory systems for medical product registration

Evaluating vaccine dossier review training was organized as part of Asia Bureau activities, and three DDA staff took part in the training.

Activity 2.2.3: Strengthen regulatory system for medical device registration

MTaPS' technical adviser for medical devices completed a five-day training on assessing medical devices and in-vitro diagnostics organized in collaboration with MTaPS Rwanda and Tanzania. MTaPS drafted the situational analysis of medical device regulation and registration and developed an implementation

strategy for strengthening medical device regulation and registration in Nepal. MTaPS will support the stakeholder discussion of both the situational analysis and registration strategy. The development of standard specifications of selected products is in progress. Over the next quarter, MTaPS will finalize the registration guidelines and standard specifications. After approval of these documents, registration and regulation of medical devices and health technology products can be initiated.

Activity 2.2.4: Strengthen pharmacovigilance at national and provincial level

MTaPS supported DDA in reviewing safety studies of new molecules and budgeted for post-marketing surveillance sample collection. MTaPS assisted in cleaning data on the AEFI reports of the COVISHIELD vaccine and supported reporting AEFI into Vigiflow. MTaPS prepared a PV situation analysis and a detailed implementation and risk-based communication plan for strengthening PV in Nepal. MTaPS facilitated a discussion with DDA on the draft SRS for PV, and the home office technical team started customizing the PViMS tool to the Nepalese context. MTaPS has drafted and shared regulations for PV with International Law Institute African Center for Legal Excellence for their inputs. MTaPS also drafted the guidelines and SOP, which are awaiting discussion with DDA. These documents will help increase the maturity level of DDA. MTaPS shared the detailed PV work plan, which is based on the GBT/Institutional Development Plan, with DDA to prioritize activities. MTaPS shared draft regulations on e-pharmacy and the Indian Pharmacopoeia as reference material with the DDA.

Activity 2.2.5: Strengthen GPP

MTaPS presented the final draft of GPP guidelines and the electronic GPP inspection tools to the stakeholder meeting organized on December 3-4 along with the updated Codes on Sale and Distribution. The meeting was attended by representatives from a pharmacy professionals' organization, pharmacy business professional organization, consumer association, and other stakeholders related to pharmacy practice. The concept of the accredited drug dispensing outlets (ADDO) was presented and its feasibility in Nepal was explored. However, response to the concept was mixed and the need to ensure that pharmacists-managed pharmacies was stronger, in spite of the limited number of available pharmacists. Talks with the professional bodies will continue. The feedback from the workshop was incorporated into the GPP guidelines and GPP electronic tool. The guideline and tools have been finalized and forwarded to DDA as final documents. A draft GPP implementation plan has been prepared. An RFP for developing an e-learning course for GPP has been advertised and the selection process is ongoing. Implementation of the electronic tool will increase the quality of DDA inspections and will help in managing inspection data.

Activity 2.2.6: Strengthen GDP

MTaPS shared the draft GDP guidelines with DDA and USAID. The GDP guidelines are being aligned with WHO Good Storage and Distribution Guidelines. The draft GDP guideline and tool was updated in line with the draft Codes on Sales and Distribution of drugs. All the indictors from the codes are included in the GDP tool, but it is more comprehensive than the codes. A GDP guideline implementation plan has also been prepared that includes the piloting of the GDP tool and identifying the mandatory, critical, major, and minor indicators. The developed inspection tool was piloted, and the GDP inspection tool updated according to Nepalese context and to understand the current situation of

practices among wholesalers, distributors, and importers. The electronic tool will strengthen the quality and uniformity of inspections by DDA and support inspection data management. MTaPS Nepal plans to hire an international consultant for the GDP training.

Activity 2.2.7: Strengthen Good Hospital Pharmacy Practices

MTaPS surveyed hospital pharmacies to assess implementation of Good Hospital Pharmacy Practices (GHPP) and identify gaps in existing hospital pharmacy guidelines. MTaPS will lead a discussion on the findings from the survey with stakeholders, including DDA and MOHP, and a strategy to strengthen GHPP will be developed. MTaPS developed the SOW for the consultant to support GHPP. MTaPS will support revision of the current hospital pharmacy practice guidelines. Similarly, a guideline on GHPP will also be developed. The revised hospital pharmacy directives will improve the hospital pharmacy situation in Nepal. Applying GHPP will improve the quality of care and the revised guidelines will improve the efficient operation of hospital pharmacies.

Activity 2.2.8: Assist DDA in developing a QMS

MTaPS has drafted the quality manual and expects it to be finalized within the next quarter. MTaPS organized several ad hoc meetings with DDA staff to finalize the SOPs needed for the QMS. SOPs and related forms were developed for review of clinical trial (CT) applications. The inspection SOP is under review by DDA's Inspection Division for finalizing.

The implementation plan for QMS is updated regularly, targeting ISO certification.

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

MTaPS worked on the following key activity during the reporting quarter:

- For Pharmadex implementation, several pieces of equipment (computers, tablets, printers, and furniture) were handed over to DDA in November 2021.
- Pharmadex was updated, incorporating feedback and inputs from DDA.

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

Previously developed SRS were updated and converted to a system design plan. Requirements of the pharmacy registration module were updated. Draft SRS of the inspection module was prepared and is in the process of revision. A pre-demo workshop was organized at MTaPS' office to present the pharmacy registration module and finalize workflow. The Pharmadex developer team is working to address the feedback and change requests provided by DDA staff from the pre-demo workshop. Among three (personal, private limited, and wholesaler) pharmacy registration workflows, the personal-owned pharmacy registration workflow was finalized along with the training manual for pharmacy registration.

To boost data quality and reliability while transferring data from the Drug Administration and Management System to Pharmadex, it was agreed with DDA that the respective owner would input the information into Pharmadex.

An RFP for developing an e-learning course for Pharmadex has been advertised and the selection process is ongoing. Determining the horizontal and vertical requirements for Pharmadex server installation is in process.

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

No activities planned or implemented under this objective

OBJECTIVE 5: PATIENT-CENTERED CARE TO IMPROVE HEALTH OUTCOMES IMPROVED

MTaPS worked on the following key activities during the reporting quarter:

- SPARS with implementation plan finalized
- SPARS pilot study detailed for implementation in selected districts
- SPARS assessment tool developed

Activity 5.1.1: Strengthen medicine management in government sector health facilities

MTaPS finalized the detailed work plan for the SPARS piloting program. The program was explained to the acting secretary of MOHP and the DG of the Department of Health Services (DOHS). DOHS has officially appointed the Curative Service Division/DOHS as the focal point. The intervention districts were finalized based on the predefined parameters. The districts that qualified under the criteria are Rupandehi, Arghakhachi, and Pyuthan in the Lumbini Province. The selected districts in Bagmati Province were Chiwan, Ramechhap, and Sindhuli. MTaPS organized orientation on SPARS in the selected districts and municipalities in the provincial HQ to provide a brief introduction on SPARS, SPARS tools, and the roles of medicine management supervisors (MMSs) in this activity. High-level provincial officials from both provinces, including the health minister and the director of the Curative Service Division in Bagmati Province and the secretary in Lumbini Province, participated in the introduction meetings along with the chief of the district health offices and health coordinators from all municipalities. Focal points from both provinces were present. Procurement of IT equipment for MMSs is ongoing and has been submitted to USAID for approval.

Kathmandu University (KU) was selected for the development of MMS training material and tools. KU was advised to refer to the material from Uganda and the countries where SPARS has been implemented. KU has customized the training materials and assessment tool for SPARS implementation in Nepalese context. The training of MMSs is planned for January 2022.

MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

This quarter, MTaPS finalized the implementation and reporting of the decentralized and subnational procurement study that aimed to clarify implementation of appropriate regulations, procedures, and practices for procurement, especially for MNCH medicines and supplies. The findings are to be presented at a conference planned for January 17-18, 2022, with support from local and international consultants.

ASIA BUREAU ACTIVITIES

MTaPS Nepal conducted the competency mapping activity by using the updated WHO Global Competency Mapping Tool at the DDA, and the preliminary report has been prepared. Detailed assessment of workforce competencies, recommendations, and training materials, along with a training plan, will be finalized in the next quarter.

MTaPS supported DDA in harmonization efforts and implemented training on evaluating vaccine dossiers on December 13-17 with participation of three DDA staff. The same training for additional participants has been planned for April 2022.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Finalize competency mapping recommendation and develop training plan	Mar 2022
Finalize draft of new law	Jan 2022
Finalize situational analysis report and registration guidelines for medical devices	Mar 2022
Develop standard specifications of selected medical devices	Mar 2022
Finalize draft regulations, guidelines, and SOP for PV	Mar 2022
Finalize risk communication plan with risk management measures for PV	Mar 2022
Finalize GPP implementation plan/strategy	Mar 2022
Finalize GDP tool and implementation plan	Mar 2022
Finalize report on survey findings of the hospital pharmacy situation	Mar 2022
Finalize QMS manual and share with USAID	Jan 2022
Complete process review of Inspection Division	Jan 2022
Install Pharmadex server in Nepal Government Integrated Data Center	Mar 2022
Implement all the workflows for pharmacy registration	Mar 2022
Finalize SRS for inspection module	Jan 2022
Conduct training for MMS - SPARS	Jan 2022
Data collection and survey initiated for SPARS	Feb 2022

NIGERIA - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

Activity 1.1.2: Strengthening MSC and functionality of the AMR-TWG and its subcommittees

Regular subcommittee meetings ensure that members are kept abreast with developments at the AMR-TWG secretariat, track progress of activities/implementation by the partners supporting the AMS program in the country and reinforce the One Health approach to addressing AMR issues in the country at the national level.

There were no formal meetings of the sub committees in Q1 FY22. This was due to the non-availability of the AMR-TWG secretariat staff as a result of their engagement in the COVID-19 containment efforts and other public health issues of national priority. However, the members of the AMS and IPC subcommittees met informally as participants at the national IPC strategic plan development workshop organized by MTaPS while the AMS subcommittee members participated at the national AMS surveillance training workshop organized by the Nigeria Center for Disease Control (NCDC). Though the quarterly AMR-TWG subcommittee meetings are statutory, the meetings are usually convened to discuss ongoing program activities and activity plans in line with the subcommittees' action plans.

The inauguration of state-level AMR-TWG committee in Enugu State which was scheduled for Q1 FY22 did not take place due to the inability of the state government to agree on the membership composition of the committee. MTaPS is working with NCDC and the State Commissioner for Health on the ratification of the multisectoral membership by the state government and their subsequent inauguration and training through MTaPS' support.

Deliverable:

- MTaPS submitted the Q3 FY21 meeting report to the USAID Mission in Q1 FY22.

Next Steps:

- MTaPS will continue to support quarterly meetings of the subcommittees in FY22 by ensuring that all critical stakeholders across the relevant sectors are invited to the meeting and assisting the AMR-TWG with agenda setting for the meetings.
- MTaPS will support the quarterly meetings of the sub committees to have multisectoral representation to improve the quality of participation in all activities and programs of the AMR-TWG's IPC and AMS subcommittees.
- MTaPS and NCDC will work with Kebbi State MOH leadership to establish a state-level AMR-TWG to replicate the national committee and provide guidance and direction to all AMR containment activities in the state. An agreement by the Commissioner for Health in Kebbi to establish a state-level AMR-TWG will be a precondition for MTaPS engagement with the state on AMR program support.

RESULT AREA 2: INFECTION PREVENTION CONTROL

Activity 2.1.1: Support infection prevention and control governance at the national and state levels

National IPC Strategic Plan Development

MTaPS supported the AMR-TWG secretariat to organize two, two-day stakeholder workshops in Q1 FY22 to review the draft plan developed by the consultant engaged by MTaPS to lead the development of the national IPC document. The first and second stakeholder workshops took place November 3-4 and November 9-10 respectively. Following the two workshops, the consultant will present an updated draft of the strategic plan with inputs from the stakeholders for final approval at a forum to be organized by MTaPS in Q2 FY22.

Due to scheduling conflicts with the NCDC, the delivery date for the document has been rescheduled to the end of Q2 FY22. When completed, the national IPC strategic document will provide clarity on the strategies for IPC implementation and programs in the country.

Development of State IPC Strategic Plan

The Enugu State IPC strategic plan is nearly complete. MTaPS has shared this document with NCDC and Enugu State MOH and is awaiting their feedback in populating the non-technical components of the plan.

Activity 2.2.1: Strengthen capacity of health care providers to implement IPC guidelines (National Action Plan [NAP] activity 3.1.3)

In the absence of an e-learning platform, face-to-face training sessions were held to provide the needed capacity strengthening to members of the IPC teams and committees in MTaPS-supported facilities. Following the training sessions, which took place on October 12-14 for the IPC team members and October 28-29 for the IPC committee members, the facility IPC teams have all organized step-down training sessions for healthcare personnel in their respective facilities. About 200 healthcare personnel have benefited from the step-down training carried out by the members of the IPC teams from the three supported facilities.

Activity 2.5.1: Strengthening IPC core components and the functionality of IPC committees in select hospitals (NAP activity 3.1.2)

Facility IPC Action Plan Development

MTaPS provided technical support to the facility IPC team in developing their action plans to address specific IPC gaps and prioritized needs for the IPC program in each facility. The facility IPC teams in all three supported facilities have commenced the implementation of their IPC action plans.

Visit to MTaPS-Supported Facility by USAID Team, MTaPS, NCDC and State IPC Focal Person

The USAID team, joined by MTaPS Nigeria, the AMR-TWG secretariat and the state IPC focal person, visited two supported facilities, ESUTH and GH Agbani, and returned to the state MOH to provide feedback to the Honorable Commissioner for Health. Key observations from the visit include the establishment of facility AMS/IPC committees and teams in both facilities, commencement of advocacy/step-down training for facility staff, and implementation of household practices and compliance. Challenges identified include poor waste management and an abysmally poor admission rate in one of the facilities.

USAID visit to MTaPS support Enugu State University Teaching Hospital, Parklane Enugu, Nigeria. (Photo credit: Kabir Abdullahi)

Deliverables:

- The finalized baseline IPCAF report of the core components of the IPC program in the three facilities was submitted to the USAID Mission in Q1 FY22.
- The facility IPC action plans developed by the IPC teams in the supported facilities have been submitted to USAID Mission.
- The state IPC plan will be submitted to the USAID Mission once the State MOH and NCDC provide the necessary inputs.

Next Steps:

- The two secondary facilities supported by MTaPS in the state with low patient attendance rates and inadequate infrastructure to support an effective AMR intervention will be replaced with two faith-based healthcare facilities in Enugu state to serve as models for IPC and AMS programs in the country.
- A baseline assessment of the core components of the IPC and AMS programs will be carried out at the new facilities in Enugu using the WHO IPCAF Tool & HH Tool. This will provide the basis for assessment of the impact of the MTaPS intervention at a later date.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

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

Rapid Assessment of Stewardship Policies and Activities Covering Both the Human and Animal Sectors, Including the Methodology and Tools Used to Conduct the Assessment

MTaPS provided technical support and tools used for the rapid assessments of stewardship policies and activities covering both the human and animal health sectors. The reports were finalized in Q1 FY22 with the editorial reviews concluded. The consultants engaged by MTaPS presented the reports to the

AMR-TWG secretariat and members of the AMS subcommittee for review and adoption. The assessment reports principally provided data to support the development of an AMS strategic plan that accounts for the policy environment, practices, and supply chain management-related issues that may impact stewardship functions in the human and animal health sectors.

Development of National AMS Strategy/Plan That Covers the Human and Animal Health Sectors

During this quarter, MTaPS undertook stakeholder engagement to get buy-in for and acceptance of the policy and its implementation plan across the human, animal, and environmental sectors. The first draft of the national AMS plan developed from the report of the rapid assessment of stewardship policies and activities has been reviewed by key stakeholders in the human and animal health sectors including the FAO country team. The two consultants engaged to lead the development of the NSP are expected to present an updated version at a larger stakeholder workshop in the second quarter of FY22 following which it will be adopted as a reference document for AMS intervention in the country.

Development of AWaRe Classification of Antibiotics

MTaPS, in collaboration with WHO, supported the Department of Food and Drug Services of the Federal MOH to organize the statutory meeting of the national STG committee on December 1-2, 2021, in Abuja. This committee is responsible for the development of the EML and the development and review of STGs for disease conditions in Nigeria. MTaPS made a presentation on the process for accomplishing the categorization of antibiotics into the AWaRe categories while WHO made a second presentation on the need for AWaRe categorization of antibiotic in Nigeria.

Following the presentations, the FMOH approved the constitution of an ad hoc committee and its membership to oversee the AWaRe categorization of antibiotics in Nigeria. The AWaRe categorization process is scheduled to commence in Q2 FY22 with clearly defined TOR for the committee.

Activity 3.5.1: Support implementation of AMS programs in the three targeted intervention facilities

Establishment/Strengthening/Training of Facility AMS Teams

A joint AMS/IPC hybrid committee was constituted in the three MTaPS-supported facilities. MTaPS provided a two-day training for some of the members of the joint committee at a training workshop in November 2021.

The members of the AMS team from the supported facilities were trained at a three-day workshop on AMS interventions at the facility level. Relevant resources such as the national STGs and the EML were provided to the teams to aid their AMS program implementation at the facilities. Members of the AMS team from the secondary facilities were matched with team members from the tertiary facility to serve as mentors to the team members from the secondary healthcare facilities. At the AMS training workshop, the AMS-trained personnel volunteered to provide continuous support to the teams to ensure that they are able to get started with AMS activities in their respective facility AMS plans.

2021 WAAW Celebration

With MTaPS technical and funding support, all three MTaPS-supported facilities in Enugu State organized awareness programs targeting hospital personnel and members of the public within their areas of geographical presence on November 24-25, 2021. The awareness program was listed as a priority activity in the facilities' AMS plans. The goal of the program was 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. The awareness program covered road campaigns, media campaigns on AMS, and a visit to policymakers in the state to advocate for proper legislation and appropriate funding of AMR containment programs at the hospitals in the state.

Road Walk at WAAW Celebration. (Photo credit: GH Agnabi AMS Team)

Deliverables:

- The finalized reports of the rapid assessment of AMS policies and activities in the human and animal health sectors are ready for submission to USAID Mission as a deliverable.
- The report of the establishment, strengthening, and training of the AMS teams in all supported facilities has been sent for editorial review and then will be ready for submission to the USAID Mission.

Next Steps:

- MTaPS will follow up with the department of food and drug services of the FMOH to schedule the maiden meeting of the AWaRe Categorization Ad hoc Committee.
- MTaPS will provide technical assistance to the AMS experts to follow up with the supported AMS facility teams on the implementation of the facility AMS plan.
- MTaPS, in collaboration with the NCDC, will organize two large stakeholder workshops to ensure wider stakeholder buy-in, review and update of the draft national AMS plan with inputs from the stakeholders and to ratify the national AMS strategic plan.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Conclude the development of the national IPC strategic plan by organizing a stakeholder meeting to finalize the document.	Jan 2022
Organize a wider stakeholder workshop on the national AMS plan and adoption of the plan	Jan 2022
Conduct baseline assessment of IPC and AMS at the two additional facilities in Enugu State and training of IPC and AMS teams and committees at the facilities	Jan 2022
Engage with USAID partners (Integrated Health Program and Momentum Safe Surgery) in Kebbi State on MTaPS program implementation	Jan 2022
Commence IPC and AMS engagement in Kebbi State to initiate AMR program implementation	Feb 2022
Engage with the government of Kebbi State through USAID to introduce MTaPS GHSA support to the state	Feb 2022
Conclude the development of the national IPC strategic plan by organizing a stakeholder meeting to finalize the document.	Jan 2022

THE PHILIPPINES - QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

MTaPS worked with the DOH DPCB, as one of the four DOH bureau contributors, with inputs from PS and SCMS to include the key elements of the PSCM Roadmap/Reforms in the DTP of the DOH for 2022-2024. In compliance with the Department of Budget and Management (DBM) issuance to the National Government Agencies to develop a plan on how to gradually and fully re-devolve functions and services to LGUs, the DOH submitted the DTP to the DBM for evaluation and approval. Some elements of the PSCM Roadmap included in the DTP are the development of technical guidelines and SOPs for key PSCM processes, collaboration with DOH central office for support, technical assistance, and trainings, and fully integrated, interoperable eLMIS in place up to the final point of care. In the DTP of the DOH, the PSCM will continue to be a shared function between the DOH and LGUs in the medium term.

MTaPS also worked with DPCB to develop an AO on "Governing Policy on Procurement and Supply Chain and Logistics Management System Design and Implementation Reform" to institutionalize the identified PSCM reforms based on the PSCM roadmap. These PSCM reforms are the envisioned improvements for each of the PSCM functions in place to address the PSCM fragmentation gaps that affect the continuous supply of health commodities in health facilities. To support the development of this AO, MTaPS shared with DPCB the mapping matrix of PSCM roles and responsibilities of key DOH offices based on the existing policies and the desired PSCM system. The DPCB incorporated the contents of this mapping matrix in the AO, which aims to define and establish the roles and responsibilities of key DOH units in support of the UHC implementation. The DPCB aims to finalize the PSCM system reforms policy by January 15, 2022 and disseminate it to other offices by January 30 for further comments. The PSCM reform and governance policy will set clear direction on further strengthening of PSCM functions, role delineations, and implementation of PSCM roadmap in the context of decentralized health system and UHC law implementation in the Philippines.

Pharmacovigilance Governance

In October, MTaPS discussed with the FDA about strengthening the national PV governance structure by revisiting the existing national PV AO to ensure that both spontaneous reporting and active surveillance are incorporated in the updated policy. With the goal of establishing the National Medicine Safety Advisory Committee, MTaPS developed the TOR for the committee that will provide oversight on national medicine safety. Considering the suggestion of the FDA not to duplicate efforts in creating another group since there is an existing National Drug Advisory Committee, the TOR ensures alignment of the functions and responsibilities of the technical members who are tapped to provide expert advice on the safety, quality, and efficacy of medicines. The draft TOR will be shared with the FDA and MTaPS will organize a meeting to address clarifications and discuss steps on how the

committee can contribute to the greater goal of strengthening national PV governance. Alongside this activity, MTaPS is also reviewing the national PV AO to incorporate active surveillance as part of the overall PV regulation.

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

MTaPS worked with the DOH to revisit the health PSCM workforce development plan in support of the recent organizational and policy changes within the DOH including the restructuring of the DPCB in the context of the implementation of the UHC law, development of a DTP, and development of a roadmap for PSCM reform calls. The PSCM workforce development plan is currently being aligned with the recent changes in the public health and PSM context to be incorporated in the health HR master plan of the Philippines. MTaPS is coordinating with different DOH offices in the revision of PSCM workforce development plans and job descriptions to support the hiring, and capacity building of health workforce at different levels to effectively and efficiently carry out PSCM functions.

MTaPS obtained technical clearance from DOH on four e-learning modules developed along with the DOH. These e-learning modules are related to PSS (two modules), WOM, and PSCM and were presented earlier through webinars to participants from the DOH, CHD), and LGUs. MTaPS developed storyboards and presenter notes and is working on converting these modules into e-learning courses to be uploaded to the DOH Academy – the eLearning Platform of DOH. These courses will help DOH, CHDs and LGUs to further develop the capacity of PSCM workforces to increase efficiency and effectiveness of PSCM functions.

PV eLearning

MTaPS started developing the contents of an e-learning course on PV and planning to organize a pilot webinar in Q2 FY22. As part of the series of webinars under SCM for Public Health Programs, the course aims to equip the public health practitioners with the basic knowledge of PV, highlight the importance of reporting AEs, differentiate the methods of PV reporting (active vs. spontaneous), and emphasize the significance of ensuring medicine safety in the implementation of the national programs. The course will also provide an overview of PV in the Philippines, discuss the tools for PV data management (Vigiflow and PViMS), and emphasize the roles of the key PV stakeholders. After receiving feedback from the FDA and DOH PD, DPCB, CHDs, and public health pharmacists, the course will be converted into an e-learning module to be uploaded to DOH's e-Learning Platform.

Product Registration

MTaPS provided updates to the FP program on the registration status of Levoplant and Sayana Press– two FP commodities which were pending registration approval by FDA. The application for certificate of product registration of Levoplant is still being evaluated while the Sayana Press was registered in the country in January 2021. Representatives of the FP program noted that they are still waiting for the decision of the expert panel on whether to include these two products in the program medicines list. After a positive recommendation has been made, the FP program will proceed with the application for a

HTA for these products, which is a prerequisite for their inclusion in the Philippine National Formulary. As requested by DOH, MTaPS will guide the FP program in the process of complying with the HTA requirements.

MTaPS followed up with the market authorization holder applicant of Levoplant (DKT Phils) to facilitate the registration process of the WHO pre-qualified product. As agreed with DOH, MTaPS will continue to follow up with FDA on the registration status of Levoplant and facilitate communication between FDA and the applicant to address any pending issues or bottlenecks. Since only one FP implant is currently registered in the country, registration of Levoplant as an additional implant product will increase the availability of this FP method and reduce the risk of stock out. Currently, around 40% of facilities often experience stock out of implants due to lack of supply of this commodity.

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

Electronic Logistic Management Information System

MTaPS selected the vendor for a commercial off-the-shelf eLMIS solution (Entuition Vesta of Bileeta Pvt. Ltd.) and kicked off the implementation of eLMIS by conducting a co-development workshop on September 30-October 1, 2021, with DOH, MTaPS, Bileeta, and development partners. A total of 60 participants from the SCMS, DPCB, PD, KMITS, PS, Health Emergency Management Bureau, Epidemiological Bureau (EB), Field Implementation Coordination Team, Bureau of International Health Coordination, CHDs, WHO, Global Fund Principal Recipients, Asian Development Bank, and other implementing partners attended the workshop and discussed the features of the eLMIS solution and implementation approach. So far, Bileeta and MTaPS have completed the following activities:

- Reviewed and prepared the documents required to initiate the eLMIS implementation
- Developed a planned governance mechanism and roles and responsibilities matrix for the eLMIS implementation
- Supported the DOH to expand the eLMIS TWG and Steering Committee to include all relevant units within the DOH, eLMIS vendor and other development partners that will support and provide technical oversight and inputs and ensure necessary infrastructures and elements are in place to support successful eLMIS implementation
- Supported the DOH SCMS to develop a Joint AO for the adoption and implementation of DOH WOM and eLMIS
- Conducted onsite visits at the DOH to validate the eLMIS requirements and process of the DOH to align it with the eLMIS off-the-shelf solution
- Held high-level meetings with DOH to formalize the strategic direction and approach for the eLMIS roll out
- Worked with KMITS, PD and DPCB to prepare the data set (e.g., facilities and commodities) that need to be part of the eLMIS, including the standardized stock keeping unit list of the DOH

- Met with One HIV, AIDS and STI Information System and ITIS system owners/administrators to discuss eLMIS updates, follow up on the master data needed for the eLMIS implementation, and data migration

- Supported SCMS to finalize a site readiness checklist to assess which warehouses at different levels are ready to implement the eLMIS based on the minimum infrastructure, human resource, hardware, process, and internet connectivity requirements

MTaPS and Bileeta also worked with DOH to finalize the eLMIS SRS document in preparation for the configuration of the off-the-shelf eLMIS. MTaPS met with DPCB to ensure that all supply chain related processes and data points including the link between PSCM Team and DPCB/Health Programs are captured in the eLMIS requirements. A workshop with DOH and all eLMIS stakeholders was held on November 26, 2021 to validate the eLMIS requirements and confirm the SRS document.

As next steps, Bileeta and MTaPS will continue working with the DOH business process owners to validate the requirements for the dashboard and reports. This validation process was slightly delayed due to slow response, lack of relevant human resources at DOH and holiday break and may affect the planned next steps including system configuration, TOT, UAT, and planned Phase 1 eLMIS roll out to 171 sites targeted by May-June 2022. Next quarter, MTaPS will have a meeting with DOH and partners (GF and WHO) to address the risks and assess if there will be a need to update the baseline plan considering the delays, COVID-19 situation and the upcoming presidential election.

Evidence Based Inventory Decision Making

MTaPS collaborated with the PD to conduct and present analysis of the stocks, warehouse, procurement and consumption data for key health commodities of the select DOH programs including FP Program, NTP, and NASPCP. Data were collated from existing available sources for the most recent quarter (July-September 2021) to assess the reporting rates; average monthly consumptions; months of stock available at the national, regional, local, and health facility levels; stock in the pipeline; and risks related to stock out and overstock. MTaPS and PD were also able to present the results of the analysis to the relevant stakeholders, including representatives from the DPCB, POPCOM, PS, SCMS, NTP, FP, and NASPCP.

During the discussion, the percentages of facilities with zero stocks for each commodity were presented, as well as the reporting rates of the facilities, average monthly consumption of each commodity, stock on hand, months of stock, expired commodities, and stock on order (procurement). DPCB, SCMS, and POPCOM are all committed to mobilize their resources to address the stockout and overstock issue. One of the crucial next steps identified is to inform the regions (through DPCB, SCMS, and POPCOM) on the facilities with overstocked commodities, so these can be quickly redistributed to nearby health facilities with zero stocks. POPCOM and PD will also meet to discuss how to streamline the collection of FP data from the health facilities. PD and the DPCB/Health Programs agreed to revisit the list of commodities to monitor their stock status in the health facilities. Another next step agreed on was to share the warehouse and PS data using standardized templates with PD regularly to support quarterly stock analysis and take timely actions to avoid stockouts and overstock.

The analyses were consolidated to a final, comprehensive document and included recommendations on how to address the identified issues including stock outs and overstocking. The document was submitted by PD to DOH's Executive Committee. For the coming quarters, MTaPS will continue working on the inventory analysis and providing further capacity building to PD on how to conduct the comprehensive data analysis, so that this activity will be institutionalized within DOH.

Couple Years of Protection (CYP)

MTaPS and IQVIA completed the final version of the CYP report for the period of January 2018 to June 2020. In this version of the report, the CYP calculations for US government (USG) and non-USG sites were included. For the CYP calculations extending up to June 2021, MTaPS and IQVIA have finalized all computations and data validations and a second draft of the report submitted by IQVIA is currently under review. For the next quarter, MTaPS and IQVIA will collaborate to disseminate the results of the latest reports to all relevant stakeholders, including DOH, POPCOM, WHO, USAID, and USAID implementing partners to understand the trends of modern FP methods coverage assessed through the distribution and sales of FP commodities and the use of sterilization and natural FP methods. This activity will contribute to the achievement of the FP programmatic goals.

Pharmacovigilance Monitoring System

After training the initial regional implementers of PViMS, MTaPS supported the DOH PD to present and align with the DOH ADSM stakeholders such as NTP, Lung Center of the Philippines Training Team, Philippine Business for Social Progress-Global Fund and USAID's TB Innovations project on the role delineation and next steps for roll out of the PViMS. Agreed-upon activities included the training of PV specialists who will perform causality assessment and building a pool of trainers/facilitators to support the PViMS roll out training to all 198 programmatic management of drug resistant TB (PMDT) facilities tentatively by January 2022 to ensure patient safety related to drug resistant TB treatments.

MTaPS supported PD to meet with KMITS and NTP to align and discuss the different scenarios relevant to the interoperability between PViMS and ITIS. PD, with support from MTaPS will regularly coordinate with DOH KMITS and NTP regarding the ITIS-PViMS interoperability development to reduce the duplication of work for staff reporting adverse events.

MTaPS, PD and NTP trained 758 participants (185 males, 558 females, and 15 unknown) in the use of PViMS from 201 PMDT facilities and issued 70 user accounts. MTaPS assisted in populating the PViMS with 83 cases of Q2 2021 and will continue supporting for the remaining data of the year. This data will be used as future reference for signal detection. PViMS is expected to be fully deployed and used to report active cases of AE by Q2 FY22, thus contributing to ensure appropriate use of safe, effective, quality-assured essential medicines and medicine-related pharmaceutical services.

MTaPS also supported the PD to train the PV specialists on the use of PViMS. The PV specialists are expected to check the completeness of the AE reports from the health facilities and assign the initial causality assessment in the PViMS. A total of 34 participants (16 male and 18 female) from DPCB, NTP, EB, NASPCP and TB Innovations were trained on the functions of PV specialists, on the basic principles of PV and on active surveillance reporting.

Based on a meeting with PD, NTP, Lung Center of the Philippines training team, Philippine Business for Social Progress-Global Fund, TB Innovations, and KMTIS to review training participants' feedback, MTaPS, PD, and NTP are planning to provide additional training to PMDT facilities that were not yet trained on the NTP digital tools, including PViMS. Rolling out the PViMS in all PMDT facilities will standardize the reporting and analysis of AE data, one of the essential activities of aDSM to improve the safety profile of new TB drugs and regimens and inform future policy updates on the use of such medicines.

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

Pooled Procurement

MTaPS continued to support procurement of GeneXpert cartridges through a pooled procurement mechanism with an order placed with the PPPI by region 5. MTaPS met with the manufacturer of GeneXpert cartridges (Cepheid) to discuss and analyze the best way to support the pooled procurement for the Philippines. Cepheid's local counterpart did not take part in the bidding conducted by PPPI. After analysis, the best option identified for the PPPI was to fulfill the order from region 5 (and demands from regions 8, 9 and 3) by procuring the commodity through the GDF.

Strategic Procurement

As part of the PSCM Roadmap/Reforms with MTaPS' technical assistance, DPCB has included as one of its strategies and activities in the DOH DTP the establishment of a mechanism for pooled procurement and framework contracting. This inclusion will support the DOH to implement strategic procurement approaches to help improve sustainable access and availability of essential commodities at primary point of care.

In order to support DOH to accomplish its plan, MTaPS Philippines and MTaPS Asia Bureau have planned to support strategic procurement mechanisms in the Philippines. MTaPS met with the DOH PD and DPCB team to discuss possible activities related to strategic procurement. PD, DPCB and MTaPS agreed to jointly conduct the option analysis for the strategic purchasing of commodities based on existing laws and possible law reforms, and to test a feasible, suitable, and acceptable strategic procurement model for the Philippines. As part of its technical assistance, and as agreed with the DOH, MTaPS will organize a learning session on different models and practices on strategic procurement, price negotiation, framework agreement, and pooled procurement with DOH-DPCB, PD and the Price Negotiation Board next quarter. To prepare for the learning sessions, MTaPS met with the CEO of Pharmac New Zealand and an MSH Senior Fellow to gather information on the global best practices in New Zealand and South Africa that are useful for the learning session and the Philippines. The learning session and the pilot on a strategic procurement model will generate useful evidence for necessary procurement reform and setting up an effective mechanism to address the current procurement challenges to ensure sustainable availability and affordability of health commodities in the Philippines.

Provider Integration and Engagement System

MTaPS coordinated with ReachHealth on the field implementation of the planned provider integration and engagement system (PIES), a digital platform to integrate public and private providers into local health care provider networks for information exchange, cross referral, and health insurance reimbursements. ReachHealth has secured local approval decision (Sanggunian Resolutions), a critical local issuance that will expedite the PIES implementation in the two LGUs (San Pedro in Laguna and Mabini-Batangas). ReachHealth shared that Biñan, Laguna has agreed to participate in the PIES pilot implementation in their municipality. With these LGUs, a total of seven LGUs, four in the province of Laguna (San Pedro, Cabuyao, Sta Rosa, Binan) and three in the province of Batangas (Mabini, San Pascual, Bauan), have been targeted for pilot implementation of the PIES.

A draft Memorandum of Agreement among MTaPS, ReachHealth, and the partner LGU in order to pilot implement the PIES has been developed and legally reviewed. MTaPS and ReachHealth met to finalize the RFP to acquire services from a digital solutions provider to support the PIES implementation. The RFP will be released by MTaPS next quarter to select and configure the platform by June 2022 and run the services for a 12-month pilot from July 2022 to June 2023. MTaPS will work with ReachHealth, the digital platform provider and partner LGUs to ensure that private pharmacies are integrated in the local health system and contribute to addressing some procurement and supply chain related bottlenecks through the referral and network approach.

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

Warehouse Operations Manual

MTaPS supported DOH to update the WOM to include sections on reverse logistics and emergency supply chain, especially to address the needs for managing COVID-19 commodities. The updated manual was officially approved by the Secretary of Health, PSCM Undersecretary and SCMS Director. Along with eLMIS, the WOM will help streamline the business processes of warehouse operations for greater efficiency of supply chain management of health commodities. MTaPS will also support DOH in printing and disseminating the WOM in the next quarters.

MTaPS also supported the POPCOM to develop a WOM to manage storage and distribution of FP commodities through the network of POPCOM-owned warehouses. MTaPS worked with POPCOM to complete the presentation of the manual to the POPCOM Executive Committee for approval. MTaPS has supported POPCOM in the development of seven warehouse operations processes that will streamline and standardize the processes at the POPCOM central and regional warehouses and strengthen POPCOM's capacity to support the supply chain of FP commodities at the subnational level.

Quantification and Distribution

MTaPS has been working with DPCB to carry out a comprehensive quantification exercise for FP, TB and HIV/AIDS commodities and institutionalize evidence-based quantification practices. DPCB has undertaken quantification as one of the core functions of PSCM as part of the PSCM reform plan. MTaPS

shared the quantification data collection template with DPCB in preparation for the quantification training and annual quantification exercise planned to take place next quarter. MTaPS is also working with the DPCB to gather input from other key DOH offices on the review of the DOH distribution policy to avoid overstocks and stock outs at the different levels of the supply chain.

Infection Prevention and Control and Health Care Waste Management

MTaPS and the Health Facility Development Bureau (HFDB) started the preparatory activities for the TOT on IPC, and HCWM. MTaPS and HFDB were able to design and deploy an online survey to 417 respondents countrywide for training needs assessment. The respondents were the target TOT participants from the CHD. MTaPS is currently designing the TOT for IPC and HCWM and will be conducting sessions for the CHD representatives with the assistance of local technical experts on IPC and HCWM and representatives from HFDB in the coming quarters.

MTaPS and HFDB also started developing the facilitator's guide for the HCWM TOT to guide TOT participants from the CHDs on how to be an effective trainer once they roll out the HCWM training in their respective localities. The facilitator's guide will be completed by January 2022 in preparation for the TOT session that will take place in March 2022. The TOT on IPC and HCWM aims to prepare a pool of trainers to train health care workers from the health facilities on the standard guidelines and practices related to IPC and HCWM to improve their compliance and protect themselves and patients from the risk of infections and to protect the environment. MTaPS and HFDB also agreed to organize a teach back session to be held six months after the TOT to share participant's accomplishments in rolling out the training in their respective regions.

Gender

MTaPS met with the Health Policy Development and Planning Bureau (HPDPB) of Gender and Development (GAD) Secretariat to present the plan for the development of an e-learning module focused on the basic concepts on how sex and gender can affect access and use of medical products and pharmaceutical services. MTaPS and HPDPB GAD agreed to collaborate on the development of this course and ultimately upload it to the DOH Academy.

MTaPS outlined the scope, target audience, learning objectives and estimated timeline for completion of the course and shared with the GAD Secretariat of DOH including representatives from the HPDPB, and Health Human Resource Development Bureau (HHRDB). DOH and MTaPS agreed to complete the learning materials and offer the course through a webinar by June 2022. Following the webinar, the course will be converted into an e-learning module to be uploaded to DOH Academy by September 2022.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Activity 1.1.1: Support DOH in implementing PSCM road map as part of implementing UHC law	Mar 2022
Activity 1.2.1: Support DOH in implementing the PSCM workforce development plan for institutional capacity building of DOH and LGUs	Mar 2022
Activity 1.2.2: Capacitate a pool of local technical assistance providers to support institutional capacity building of LGUs for PSCM functions	Mar 2022
Activity 1.3.1: Support DOH in implementing the roadmap for an end-to-end eLMIS	Mar 2022
Activity 1.3.2: Support DOH in developing mechanisms and practices for regular data collection and analysis for programmatic and PSCM decision-making and streamlining of workflows and processes	Mar 2022
Activity 1.4.1: Support DOH and LGUs in institutionalizing practices related to procurements through FAs and PPMs for FP and TB commodities	Mar 2022
Activity 1.4.2: Conduct implementation research on using a digital platform to integrate public and private providers into local health care providers' networks for information exchange, cross-referral, and cost reimbursements related to medical products and services to support UHC law implementation	Mar 2022
Activity 1.5.1: Support DOH in institutionalizing a practice of evidence-based quantification and allocation of TB and FP commodities to inform procurement, supply planning, and distribution	Mar 2022
Activity 1.5.2: Support POPCOM in implementing a segmented subnational SCM of FP commodities	Mar 2022
Activity 2.1.1: Support DOH and FDA in strengthening the national PV governance structure and processes for aDSM	Mar 2022
Activity 2.2.1: Support DOH and FDA in registering FP and TB products through optimization and enhancement of product registration process and targeted support	Mar 2022
Activity 2.3.1: Support health facilities on improved practices on infection prevention and control and health care waste management related to climate risk mitigation	Mar 2022
Activity 2.4.1: Support DOH in rolling out active PV information system	Mar 2022
Activity 3.1: Provide PSCM- and PV-related inputs to USAID partners	Mar 2022
Activity 3.2: Support gender equality and women's empowerment in PSS	Mar 2022

RWANDA – QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

During this quarter, MtaPS continued to strengthen the capacity of government and health workers of Rwanda to manage pharmaceutical systems; promote the availability and use of pharmaceutical information for ART-related decision making; and strengthen systems for providing safe, patient-centered pharmaceutical care services of assured quality.

The following are select highlights from FY 22, quarter 1:

- Training was conducted for 40 RFDA staff on assessing application dossiers for medical devices and IVDs. This capacity building will improve the registration process and increase the number of quality-assured and effective registered medical devices and IVDs on the Rwandan market.
- In collaboration with the Rwanda Biomedical Centre (RBC) and RFDA, MtaPS trained 20 health care providers on tools, the study protocol, consent form, and PviMS as part of supporting implementation of DTG-based ART regimens' active surveillance monitoring study in 20 selected health facilities (10 hospitals and 10 health centers). The outcomes of the study will help healthcare policy makers to make evidence-based decisions on medicine safety for ART patients.
- MtaPS provided technical support for developing key regulatory documents for processed food products.
- MtaPS finalized and submitted the AwaRE classification of antibiotics to the MOH. The list of classified antibiotics was incorporated in the current revised NEML in line with WHO guidance, as part of enhancing appropriate use of medicines, especially antibiotics aimed at reducing AMR.
- On December 3, 2021, MtaPS held a face-to-face meeting with the USAID Mission's Health Office director, MtaPS program activity manager, and senior supply chain advisor. The purpose of the meeting was to review the progress of activities under the program's year 3 work plan and planned activities for year 4. The Mission concurred with the field office team on the proposed year 4 work plan and advised them to address a few pending issues that include specific activities being included in the two separate year 4 work plans (ARPA and PEPFAR and FS), which were addressed.
- In addition, the following documents were finalized and submitted to the mission:
    - Regulations and guidelines on medical gases, including oxygen (submitted November 22, 2021)
    - SOP on assessment of application for registration of generic medicines (submitted January 5, 2022)
    - Regulation (revised) on registration of food products (submitted January 5, 2022)
    - Risk-based inspection plan for food premises inspections (submitted December 15, 2021)

- Report on the Annual National Pharmacy Council (NPC) Conference and dissemination of IEC materials (submitted December 15, 2021)
- Dissemination report of developed IEC materials (submitted December 15, 2021)

OBJECTIVE 1: IMPROVE PHARMACEUTICAL-SECTOR GOVERNANCE

During this quarter, MtaPS continued to strengthen the RFDA's capacity in regulating pharmaceuticals used in HIV/AIDS; MNCH; and FP/RH programs. MtaPS also helped streamline the registration of essential medicines and medical devices to ensure expedited approval by the Authority.

Activity 1.1.1: Strengthen the capacity of Rwanda FDA in regulating pharmaceuticals used in HIV/AIDS, MNCH, and FP/RH programs

MtaPS is working with MOH and its institutions, including RFDA, RBC, and NPC, to implement several activities to strengthen the pharmaceutical sector's governance, service delivery, and regulatory systems. During this quarter, MtaPS worked with these stakeholders to:

- Provide support in the development, classification, and technical validation of WHO's AwaRe classification of antibiotics in Rwanda: The activity report was finalized and submitted to MOH and helped update the list of essential antibiotics in the NEML, which is pending signature by the minister. A technical brief on updating the NEML was generated and will assist in informing stakeholders about the accomplishment and accompanying benefit to contribute to reducing AMR. The NEML with AwaRe classification will be used by Rwanda prescribers to optimize the use of antimicrobials in line with WHO guidance, as part of enhancing appropriate use of medicines, especially antibiotics, to reduce AMR.
- Hold a meeting with the DG of RFDA on October 15, 2021, to discuss how to address delayed feedback on some of the deliverables that were submitted to RFDA for review. The deliverables include the draft RFDA business plan and MtaPS' annual report required for registering MtaPS in the country. The discussion resulted in RFDA providing comments on the business strategy, for which feedback from senior management was obtained on December 17. Additional feedback on the business plan is awaited from the DG.

Activity 1.1.2: Streamline registration of essential medicines and medical devices, including those used in HIV/AIDS, MNCH, and FP programs

In quarter 1, MtaPS continued to provide support in operationalizing the developed e-learning course on medicine evaluation and registration, in close consultation with RFDA. The courses have been uploaded to the online Moodle platform, where trainees will be able to access the courses. In addition to the course being uploaded, there is an ongoing MtaPS-facilitated discussion between RFDA and MOH on implementing the course and enabling sustainability of the program. The e-learning course will enable RFDA assessors to acquire knowledge and ascertain key areas to look out for during the evaluation process. The online course will also be accessible to current assessors to refresh their knowledge and for new assessors to learn the key areas of focus while conducting assessments.

As part of continued support, in FY21 Q4, MtaPS organized a capacity-building session for 40 RFDA staff (16 females, 24 males) in medical device assessment and will support RFDA in developing a list of medical devices categorized according to risk and SOPs for listing medical devices. Currently, the regulation of medical devices is limited, and regulators need to acquire skills and knowledge in assessing medical devices and IVDs to ensure that products released on the market are of quality and perform effectively. The training enhanced the skills of RFDA staff to undertake technical evaluations of medical device dossiers, will enable regulators to increase the number of registered medical devices and IVDs on the Rwandan market, and will facilitate regulation.

Activity 1.1.3: Enhance capacity of Rwanda FDA to ensure quality of food products

Working with RFDA, MTaPS provided technical support in developing and updating regulatory documents for food products to strengthen the regulatory framework for food quality and safety. The developed and revised documents are:

- Revised regulation on registering food products
- Regulation on food safety surveillance
- Revised guidelines on registering food products
- Guidelines for post-marketing surveillance of food products
- Guidelines on recall, seizure, and disposal of unfit products
- Risk-based inspection plan for food premises inspections

All documents referenced above are aimed at strengthening the regulatory framework and improving the safety of processed food products. Of these, the risk-based inspection plan for food premises and the regulation on registering food products have been submitted to the Mission, while the other documents are undergoing editorial review prior to submission. This guidance will lead RFDA to have a defined scheme on monitoring food quality and safety by inspecting food premises that will in turn improve the effectiveness and efficiency in delivering processed food product regulatory services

Activity 1.2.1: Enhance the capacity of pharmacy and clinical staff to transition patients to tenofovir + lamivudine + dolutegravir at ART sites

During this quarter, MTaPS finalized review of the DTC operational manual, tools, such as checklists and SOPs, specifically, (a) SOP for drug use review, (b) SOP for supportive supervision during active safety monitoring of health products and SOP for facility level ADR reporting, and (c) checklist for data quality check for Rwanda after providing support to the MOH and its stakeholders in drafting the documents were reviewed. The documents are currently under editorial review before stakeholder validation. MOH and its stakeholders will implement the DTC manual, SOPs, and checklists once the documents are validated and approved. MTaPS is working with MOH to engage all its stakeholders, including various clinical specialists and health professional councils, to hold a workshop for validating and approving all these documents in the next quarter. It is also expected that, after validation and approval, a selected

number of stakeholders, mostly from district hospitals, with MTaPS support, will be trained to build their capacity to implement the DTC approach.

Activity 2.1.1: Support replacement of the Product Regulatory Information Management System with the Integrated Regulatory Information Management System , integrated with PViMS for effective regulatory and PV functioning of the Rwanda FDA

In quarter 1, MTaPS finalized the scope of work for the consultant who will replace the PRIMS with the new IRIMS at RFDA. A consultant has been identified and will start working in January 2022.

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

Activity 3.1.1: Strengthen delivery of high-quality, patient-centered pharmaceutical care through the development of pharmacy service standards aligned with Rwanda's health care quality and accreditation system

In quarter 1, MTaPS completed and submitted the report on the annual pharmacy conference led by the NPC that was attended by 446 participants (292 males and 154 females). The report was submitted to the USAID Mission in December 2021. In addition, the report covered the dissemination of IEC materials that were developed with MTaPS' support. The IEC materials are intended to be used by both health providers and patients to improve public awareness of medicine safety and increase reporting on medicine safety issues. Currently, MTaPS is collaborating with MOH to disseminate the pharmacy service accreditation standards, including uploading them to MOH's website to allow access to soft copies; MTaPS plans to work with MOH to integrate the standards into the hospital accreditation approach by collaborating with the Rwanda Integrated Health Systems Activity project.

Activity 3.1.2: Improve quality and use of medicines for MNCH

MTaPS is working with RBC's MNCH division to conduct a situational analysis on supply and use of FP products at the facility level and any barriers to access, especially in the teenage population. After discussions with several organizations working to provide youth-friendly FP services, the study tool, to be completed with key stakeholders at facility level and in districts, has been developed and is under technical review before validation and finalization. The study findings should identify challenges in the supply and availability of FP services, especially for teenagers, and inform government and stakeholders on the course of action that would ensure improved FP services to the teenage population.

In support of improved management of medicines at the community level, MTaPS has determined, through discussions with the maternal, child, and community health unit under the RBC's MNCH division, that a key bottleneck in community-based health care service delivery is the management and use of FP products. MTaPS has proposed to develop training materials on FP for community health workers (CHWs), and it is expected that the materials will be developed in the next quarter

Activity 3.2.1: Support establishment of a system for active surveillance of the new DTG-based regimen and strengthen the existing spontaneous reporting system

MTaPS supported the RBC and RFDA in training and capacity building of 20 healthcare providers (16 females and 4 males) on the protocol, tools, and consent form for the active safety surveillance of DTG-based regimens. This training of data collectors was part of finalizing the implementation plan for monitoring clients on DTG-based ART regimens.

In the same quarter, and immediately after the training, patient enrollment commenced. To date, 100 patients have been enrolled in the study across five hospitals and 10 health centers of the 20 implementing health facilities. The purpose of the study is to provide more insight on the safety profile of DTG-based ART regimens in the Rwandan population.

EBOLA RESPONSE ACTIVITIES

Field testing and validation of EVD IPC guidelines and compliance tools (Photo credit: Abimana Rwandenzi Eugene)

INFECTION PREVENTION AND CONTROL, INCLUDING WATER, SANITATION, AND HYGIENE

MTaPS has continued to work with MOH, RBC, and RFDA to advance support on IPC. Following development of IPC guidelines and several SOPs and tools to facilitate operationalization, MTaPS further supported development of IPC implementation compliance and monitoring tools.

The combination of activities specific to the validation, approval, and implementation of the monitoring and compliance tool and the use of related protocol documents will increase and improve the capacity of HCWs to detect, manage, and prevent the spread of EVD; and HFs will improve their capacity to prevent, control, and manage EVD.

RISK COMMUNICATION AND COMMUNITY ENGAGEMENT, INCLUDING SOCIAL AND BEHAVIOR CHANGE

MTaPS also supported both MOH and RBC in developing IPC risk communication materials. The materials will be helpful in ensuring that IPC messages are communicated effectively to the population within the context of reducing and containing infections to an acceptable minimum level in the case of an outbreak.

SURVEILLANCE AND CONTACT TRACING

No activities were held this quarter.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
FS activity 1.1.1: Strengthen the capacity of Rwanda FDA in regulating pharmaceuticals used in HIV/AIDS, MNCH, and FP/RH programs (activity continuing from FY21): • Support a capacity-building training session on dossier assessment of vaccines and biological products for RFDA staff • Work with RFDA to prepare a validation workshop of the business plan draft document • Support RFDA's medicine dossier assessment retreat to reduce the dossier backlog and apply reliance principles for expedited, quality evaluations, aiming to cover 70 dossier applications in one two-week session	Jan-Feb 2022
FS activity 1.1.2: Streamline registration of essential medicines and medical devices, including those used in HIV/AIDS, MNCH, and FP programs • Develop the list of medical devices categorized according to risk and SOPs for listing and registering medical devices	Mar-Apr 2022
FS activity 1.1.3: Enhance capacity of RFDA to ensure quality of food products • Conduct orientation workshop on regulatory documents for food products and the risk-based inspection plan	Mar 2022
FS activity 2.1.1: Support replacement of the PRIMS with the IRIMS, integrated with PViMS, for effective regulatory and PV functioning of RFDA: • Support replacement of PRIMS with IRIMS • Train selected RFDA staff as expert trainers in IRIMS operations	Jan-Jun 2022
ARPA activity 3.1.2: Enhance the capacity of RBC to manage multi-month dispensing of antiretroviral medicines to ART patients • Support RBC in conducting a feasibility study on the proposed adjustment from monthly to bimonthly dispensing for adherent breastfeeding mothers and new clients on ARVs	Mar- Jun 2022
FS activity 3.1.2: Improve quality and use of medicines for MNCH • Conduct a situational analysis on supply and use of FP products at facility level and any barriers to access, especially in the teenage population • Provide virtual orientation for all districts on guidelines for storage and management of oxytocin	Feb-Jun 2022

Activity and Description	Date
• Develop draft orientation materials for refresher training of CHWs on management and use of FP products	
FS activity 3.1.3: Improve access to and administration of oxygen to hypoxic newborns and children with pneumonia • Support organization of the first meeting of the oxygen steering committee and review of the oxygen roadmap • Initiate the development of guidelines and SOPs on oxygen therapy and oxygen equipment utilization at facility levels	March - June 2022
ARPA activity 3.2.1: Support strengthening the existing AE/AEFI spontaneous reporting system for medicines, including COVID-19 vaccines and ARV commodities • Support PV training, including using PViMS, for about 80 health care providers across programs and health facilities	March 2022
FS activity 3.2.1: Support establishment of a system for active surveillance of the new DTG-based regimen • Support ongoing implementation of the active surveillance system for DTG-based regimens at the 10 selected hospitals and disseminate findings and recommendations of the study	Jan - Sep 2022

SENEGAL - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

Activity 1.1.1: Strengthen the functionality of the AMR technical working group by supporting effective coordination through regular meetings

MTaPS supported the PS of HCNSSM/OH to organize and lead two virtual meetings with a small group of participants within the AMR TWG on November 4 and 11, 2021 to develop a list of activities for WAAW using the One Health approach. Breakthrough Action, FAO, WHO, MTaPS, PATH/FAO/Fleming Fund, REDISSE and PS/HCNSSM/OH staff participated in these meetings. MTaPS and Breakthrough Action worked together to develop a concept note for the celebration of WAAW that helped finalize the agenda activities. The WAAW took place from November 14 through December 14, 2021. Breakthrough Action, FAO, WHO, MTAPS, PATH/FAO/Fleming Fund, REDISSE, and PS/HCNSSM/OH jointly supported the implementation of the following activities:

- Orientation of health desk journalists on One Health and AMR resulting in the establishment of the OHJN.
- Raising awareness of AMR among community actors (breeders, producers, farmers, traditional communicators, etc.) in Dakar, Kolda and Ziguinchor.
- Organization of a two-day symposium on the Fleming Fund supporting AMR and zoonotic diseases activities.
- Organization of an official closing ceremony for WAAW in Senegal under the chairmanship of the High Council of Local Authorities, the Minister of the General Secretariat of the Government, and the ministries of the human, animal, and agricultural health sectors.

From November 16-18, MTaPS participated in and provided a technical contribution to the zoonotic diseases working group workshop organized under the aegis of the PS of HCNSSM/OH. The workshop focused on the following objectives:

- Taking stock of existing zoonotic disease related activities.
- Identifying and prioritizing needs related to the prevention of emerging zoonotic diseases.
- Defining priority activities for the new French Development Agency's African project related to the prevention of emerging zoonotic diseases.

The main results of the workshop include knowledge sharing on the status of implementation of activities related to priority zoonotic diseases and critical gaps that require the mobilization of additional technical and financial resources. The new French Development Agency's African project considered the prioritization of activities to address identified gaps during the development of its work plan. MTaPS will play a collaborating partner role during meetings of the multisectoral committee for AMR providing

technical inputs to their workplan development and implementation monitoring based on MTaPS experience in AMR.

RESULT AREA 2: INFECTION PREVENTION CONTROL

Activity 2.5.3: Support the revitalization of ICCs in selected district and regional hospitals.

From October 18-22, MTaPS supported the ICCs in six MTaPS-supported hospitals (one from FY2019/2020 and five from FY2021) to conduct the internal review of the implementation of their respective IPC improvement action plans, which were developed with regards to the baseline assessments. The ICCs conducted the reviews using the WHO IPCAF tool. The internal reviews show that the hospitals have increased their IPC capacity levels (Table 21).

Table 21. Review of IPC capacity levels in six MTaPS-supported hospitals with use of improvement action plans

Hospitals	IPC capacity assessment results	
	Baseline score	Follow-up score
Level 1 hospital of Mbour	**21%** (167.5/800) **Inadequate**	**57%** (455/800) **Intermediate**
Level 2 hospital of Fatick	**39%** (315/800) **Basic**	**64%** (513/800) **Intermediate**
Level 2 hospital of Kaffrine	**48%** (380/800) **Basic**	**67%** (535/800) **Intermediate**
Level 3 hospital of Touba	**39%** (310/800) **Basic**	**56%** (450/800) **Intermediate**
Level 3 hospital Aristide Le Dantec of Dakar	**39%** (322/800) **Basic**	**87%** (692.5/800) **Advanced**
Level 3 hospital Idrissa Pouye General Hospital (HOGIP) of Dakar	**39%** (315/800) **Basic**	**69%** (553/800) **Intermediate**

Overall, facilities are implementing the national IPC guidelines, the WHO multimodal strategy, and the continuous quality improvement approach during IPC activities. ICCs will continue implementing their improvement action plans including CQI and WHO multimodal approaches to further improve their IPC capacity levels.

From November 22-25, MTaPS supported the Directorate for Quality, Security, and Hospital Hygiene (DQSHH) and IT Unit to organize a workshop to integrate additional IPC modules into the MOH's e-learning platform, complete the validation process for the newly uploaded modules, and prepare the virtual training of selected ICC members of the eight hospitals supported by MTaPS. On December 2, the IT Unit led a virtual training on the use of the MOH e-learning platform and on how to access and use the uploaded IPC courses. Sixty-two participants from the eight facilities supported by MTaPS were

given access to the e-learning platform for IPC e-learning courses and additional IPC resources. The 62 trained ICCs trainers increase the number of persons trained on IPC and contribute to MTaPS Result 2.2: Institutional and HR capacity to manage IPC strengthened.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Support the implementation of capacity-building interventions to increase compliance with antibiotic Standard Treatment Guidelines (STGs)

Under the aegis of the PS HCNSS/OH, MTaPS chaired the second day of the training session of 12 health desk journalists on basic knowledge of One Health, AMR and zoonotic diseases. Following the training, MTaPS facilitated the establishment of the OHJN, and the newly trained health desk journalists have started producing radio and TV reports on AMR. The trained health desk journalists contributed to the media coverage of the official WAAW closing ceremony organized under the chairmanship of the High Council of Local Authorities, the Minister of the General Secretariat of the Government, and the Chiefs of Staff of ministries of the human, animal, and agricultural health sectors. This was a first-time joint effort among AMR multisectoral partners to organize such activity. No baseline and end line data were collected. Furthermore, trained health desk journalists produce radio and TV programs in local languages and in French to raise awareness among their audiences about AMR.

EBOLA RESPONSE ACTIVITIES

IPC, INCLUDING WASH

No activities were held this quarter.

SURVEILLANCE AND CONTACT TRACING

No activities were held this quarter.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
GHSA	
MTaPS will support the PREVENTION/AMR working group to organize a quarterly meeting under the aegis of the SP HCNSS/OH	Feb-Mar 2022
MTaPS will work with the DQSHH/MOH to select and conduct a baseline assessment of the five new hospitals using the WHO's IPCAF and HH Self-Assessment Framework	Feb-Mar 2022
MTaPS will work with the National Committee on Antibiotics Treatment to finalize and implement the dissemination plan of the antibiotic STGs	Jan-Mar 2022
MTaPS will support the National Antibiotic Therapy to launch and disseminate the policy and STGs nationwide through virtual technical orientation sessions at national and subnational levels	Jan-Mar 2022
Ebola Response	

Activity and Description	Date
MTaPS will provide technical and financial support to the EVD/IMS to finalize the 32 SOPs (on case management (8), IPC (8), surveillance (9), behavior change communication (4) and psychosocial care (3).	Jan-Mar 2022
MTaPS will support the organization of the orientation of targeted health district teams on how to use the finalized SOPs	Jan-Mar 2022

TANZANIA - QUARTER PROGRESS FOR FY22Q1

FIELD SUPPORT ACTIVITIES

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

Activity 1.1.1: Conduct a process improvement mapping for registering and importing antiretrovirals, including dolutegravir for the public sector

MTaPS provided technical support on development of process mapping tools for the registration and importation of ARVs in Tanzania. MTaPS identified key informants and requested their participation in an in-depth interview; 12 interviews were conducted out of an expected 17 for ARV registrants (among them local technical representatives, marketing authorization holders or importers, and public distributors for program ARVs). Additional information was collected from the health facility-level with 64 out of 100 targeted interviews conducted. The next step is to perform qualitative and quantitative data analyses of survey responses, conduct a stakeholders' validation workshop, and discuss the findings and considerations for action to address the challenges/constraints identified to finalize the mapping report with recommendations for improving the process for registration and importation of ARVs for the public sector.

Activity 1.1.2: Sustain the capacity of TMDA to assess quality, safety, and efficacy of ARVs

This activity is completed. No activities were held this quarter. The deliverables (a report on the workshop on capacity building of product registration for medicines for TMDA regulators and the product dossier evaluation retreat for evaluating medicine dossiers and training materials/course content for medicine assessors) have been submitted for editorial review prior to submission to the mission.

OBJECTIVE 2: STRENGTHEN SYSTEMS FOR PROVIDING PATIENT-CENTERED CARE AND SERVICES

Activity 2.1.1: Strengthen existing passive medicine safety surveillance system for pediatric medicines used in the national HIV program

The TMDA conducted training for members of the VTC for medicines, vaccines, medical devices, and diagnostics on October 25-29, 2021. The training builds capacity so the VTC can execute their duties in line with the vigilance framework of Tanzania and the current revised TOR of the VTC that were developed with MTaPS' support. The workshop also included inauguration of the committee following official appointment by TMDA and the first meeting of the VTC since the addition of new pediatric experts (three pediatricians and one co-opted member with pediatric expertise).

MTaPS provided technical support to TMDA to conduct training on assessment of PSURs and RMPs on November 29-December 10, 2021. TMDA staff and external assessors were trained on the role of RMPs and PSURs in PV and impact assessment skills of these regulatory documents. A total of 27 (10 female, 17 male) participants attended and were capacitated to assess PSURs and RMPs, to write reports and communicate safety information. TMDA acknowledged support from MTaPS and requested more support because of many gaps yet to be addressed, including training domestic manufacturers on PV systems and responsibilities of market authorization holders to empower them to establish a functional PV system for safety monitoring of their products as well as submitting PSURs and RMPs on time with the content and format as per the TMDA's existing regulations.

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

Activity 1.1.1: Review plans and progress through regular meetings of the AMR governance committee

The MOHCDGEC, in cooperation with MTaPS, conducted the 17th MCC meeting virtually on October 28, 2021, to map stakeholders and partners and mobilize resources for supporting and commemorating WAAW for 2021.

MTaPS supported the 18th MCC meeting held November 18-19, 2021, in Dar es Salaam, which mainly discussed containing AMR in Tanzania through the One Health approach and implementing WAAW. The meeting was attended by representatives from the MOHCDGEC, WHO, FAO, MLF, prime minister, MTaPS, and other implementing partners. Using antimicrobials in the human, livestock, plant, and environmental sectors and how this contributes to AMR was discussed as well as aligning AMR containment with the commemoration of WAAW whose 2021 theme was "Spread awareness, stop resistance." AMS, IPC, and Surveillance and Awareness TWGs all presented to the MCC on implementation progress and plans for upcoming activities. MTaPS presented progress on the program's implementation on strengthening governance, IPC, and AMS. MOHCDGEC acknowledged MTaPS' support in Tanzania, including for this meeting that marked the start of the WAAW commemoration for 2021.

MTaPS organized and provided technical support for a meeting on October 27, 2021, for the IPC TWG to review previous plans, discuss progress of IPC in Tanzania, and develop an action plan for further improvement of IPC. Generally, the IPC program has made tremendous progress in the last three years. Coordination at the ministerial level has been strengthened by increasing staff from one IPC coordinator to four people who coordinate activities nationwide. The national IPC guidelines, standards, and SOPs have been disseminated in most hospitals; in addition, the national IPC M&E framework and reporting tools/system have been disseminated to selected facilities. The meeting noted the need for improvement in disseminating the national IPC guidelines, standards, and SOPs in the remaining regions/facilities; the

need to roll out IPC M&E tools across all health facilities so they can start reporting; and the need to do more advocacy of IPC at the community level through both government and private sector media.

MTaPS organized and provided technical support in a joint meeting of the IPC and Awareness TWGs in Dar es Salaam on November 12, 2021. The objective of the meeting was to develop a plan for commemorating WAAW 2021 in Tanzania. The meeting focused on translating the WHO theme into Swahili, organizing events, and developing messages for use in different IEC materials to be used for advocacy during WAAW. Twenty-seven participants met from different organizations, including MTaPS, FAO, TMD), Sokoine University of Agriculture, University of Dodoma, led by MOHCDGEC and MLF. The WHO theme for WAAW 2021 "Spread Awareness, Stop Resistance" was translated into Swahili—*Eneza Ujumbe, Zuia Usugu wa Vimelea Dhidi ya Dawa*. The messages developed and adapted from WHO were mainly based on AMS and IPC as key strategies for AMR containment. It was agreed by the team (including MTaPS) that the IEC materials to be developed, including posters, brochures, banners, and videos and other agreed messages, should be in Swahili first, because this is a national language easily understood by Tanzanians. The team assigned different groups to conduct different events and campaigns, support orientation of the media and outreach, support development of a press release from the minister of MOHCDGEC and distribute already printed materials from the Prime Minister's Office to different communities, including schools (both primary and secondary), universities, marketplaces, and different gatherings across the regions of Tanzania.

These activities strengthen governance and contribute to AMR containment via the One Health approach. They also contribute to Tanzania progressing to the next JEE capacity-level rating by implementing the recommended actions in benchmark 3.1 for multisectoral coordination on AMR in WHO's 2019 International Health Regulations capacity-benchmarking tool, specifically the benchmark action "Review plans and progress through regular meetings of the AMR governance committee" (L4).

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.3.1: Enhance data generation and use by supporting active implementation of the approved national IPC M&E protocol

MTaPS supported MOHCDGEC in printing and disseminating IPC M&E data collection and reporting tools to supported facilities. These include 20 copies of IPC registers and 20 copies of monthly and quarterly summary forms. The supported hospitals have started to record data in the registers and are expected to start reporting IPC data through the online DHIS for the quarter ending December 2021 in early 2022.

MTaPS supported MOHCDGEC in training supported facilities on how to implement the M&E protocol, including filling data collection tools and reporting through DHIS via a training held October 11-15, 2021. Participants included IPC and health MIS focal persons and MTaPS and ministry staff; 40 participants (22 females and 18 males) were trained in a TOT drawn from Dodoma, Mtwara, Tabora,

Morogoro, Mara, Mbeya, Dar es Salaam, Kigoma, Ruvuma, Kagera, Mwanza, Katavi, Njombe, and Kilimanjaro regions.

Collecting IPC data through DHIS from health facilities will allow MOHCDGEC to undertake evidence-based decision making and planning for supportive supervision, mentorship, and implementing continuous quality improvement countrywide.

Activity 2.5.1: Support active surveillance of hospital-acquired infections, specifically surgical site infections

MTaPS provided technical support to MOHCDGEC in developing guidelines and training materials for surveillance of HAIs at health facilities. The guidelines contain all types of HAIs, including surgical site infections (SSIs), central line-associated bloodstream infections, ventilator-associated pneumonia, and catheter-associated urinary tract infection. The intention of these protocols/guidelines is to ensure standardization of definitions, data collection, and reporting procedures for hospitals participating in the national/regional surveillance of HAIs across Tanzania and to improve the quality of care in Tanzanian hospitals. The general purpose of HAI surveillance is to understand the magnitude of the problem and to identify changes or interventions to prevent or manage the problems, including identifying important pathogens to target, monitoring, and preventing and controlling multiple drug-resistant organisms, which can lead to treatment failure. A workshop was held October 25-29, 2021. About 25 participants (15 male, 10 female) attended, including healthcare professionals from the national hospital, specialized hospitals, and zonal hospitals and different cadres, including surgeons, anesthesiologists, lab scientists, microbiologists, and epidemiologists. Representatives from WHO and the National Institute of Medical Research attended to ensure that the materials align with WHO and national protocols. This will also contribute to improving the IPCAF scores on WHO IPC core component 4 (HAI surveillance). This was one of the major gaps identified in health facilities during the initial IPCAF assessments, as the pilot health facilities will have the capacity to conduct SSI surveillance, document their incidences, and develop action plans for their reduction. This activity will support the country's progress toward achieving WHO benchmark actions, including "specific interventions for AMR prevention tailored to the local epidemiological situation in these plans" (L4) and "documenting the incidence of patient and healthcare worker infections, including M. TB, and the effectiveness of measures to reduce their occurrence" (L5).

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Assess stewardship policies and activities, including regulatory framework and supply chain management of antimicrobials by using a multisectoral approach.

No activities were held this quarter.

Activity 3.5.1: Continue to support active implementation of AMS practices in 10 supported health facilities

MTaPS cooperated with MOHCDGEC's PSU and followed up with MTCs on AMS implementation, mainly on progress on development of hospital formularies. The MTCs of seven regional referral hospitals (Amana, Temeke, Morogoro, Mbeya, Sekou Toure, Bukoba, and Maweni) reported starting the development of their hospital formularies, mostly identifying hospital formulary sub-committees that will lead the development and engaging with healthcare providers for collecting a list of relevant medicines. One hospital, Benjamin Mkapa Hospital, is strengthening its draft hospital formulary whereas two hospitals (Bugando Medical Centre and Mbeya Zonal Referral Hospital) with existing formularies plan to update their formularies by using current National STG/NEML for Tanzania, Sixth Edition 2021, which has AWaRe categorization of antibiotics. Developing or strengthening the hospitals' own formularies will facilitate appropriate prescribing, dispensing, and use of medicines, including antimicrobials, thus helping MOHCDGEC monitor AMS practices that promote appropriate antimicrobial use in health facilities and contributing to Tanzania's progress toward JEE capacity level 3.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
GHSA	
Mentor healthcare workers on how to use HAI protocols	Jan-Mar 2022
Conduct AMS TWG meeting	Feb 2022
Conduct AMR stakeholders' meeting for monitoring NAP indicators	Feb 2022
Recruit consultant to assess stewardship policies and activities in Tanzania	Jan-Mar 2022
Mission Funded	
Activity 1.1.1: Conduct a process improvement mapping for registering and importing ARVs, including dolutegravir, for the public sector • Perform qualitative and quantitative data analyses • Undertake stakeholder validation workshop	Jan 2022
Activity 2.1.1: Strengthen existing passive medicine safety surveillance system for pediatric medicines used in national HIV program • Finalize report on results of pediatric ARVs' ADR review	Jan 2022

UGANDA - QUARTER PROGRESS FOR FY22Q1

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTI SECTORAL COORDINATION ON AMR

Activity 1.2.1: Strengthen institutional and HR capacity for AMR-related MSC

No activities were held this quarter.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.1.1: National IPC policy, guidelines, standards, and M&E developed and regularly updated, including the animal health sector

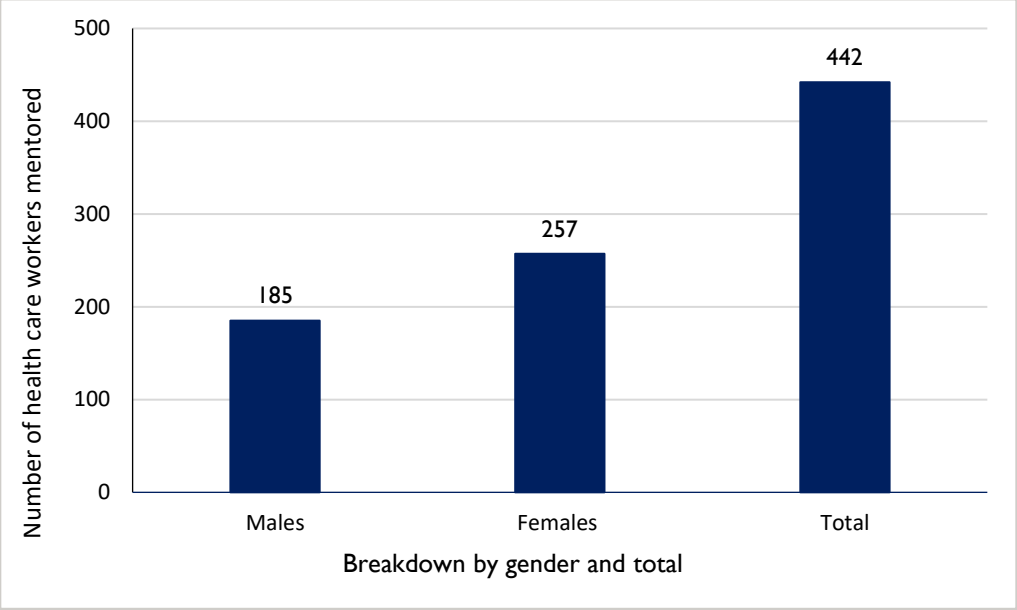
During Q1, MTaPS and the MAAIF held an event to officially hand over 2,000 copies of the Essential Veterinary Medicines List; the Guidelines for Infection Prevention and Appropriate Antimicrobial Use in the Animal Sector; and IEC materials aimed at creating awareness of AMR, improving antibiotic use and infection prevention in the agricultural sector, and increasing AMR awareness in the animal sector. Additionally, MTaPS led the development of a plan for dissemination of the Essential Veterinary Medicines List and the guidelines in the regions and selected high-impact districts. MTaPS identified stakeholders and mapped regional- and district-based dissemination activities to be held in the next quarter, identified technical staff, and mapped resources against activities. The dissemination activities will involve MAAIF officials, district veterinary officers, drug shop operators, and farm operators, among others, and will include a handover event at the district veterinary office followed by a dissemination event for a cluster of at least three districts.

MTaPS worked with the MAAIF to develop a scope of work aimed at identifying a technical expert to support the MAAIF and FAO to develop a national IPC framework/plan for the agricultural sector. The development of activities will be initiated in Q2.

Activity 2.5.1: Improve the quality of health care services through strengthening IPC at centers of excellence

In FY21, MTaPS worked with the MOH and the medical bureaus (Uganda Protestant Medical Bureau and Uganda Catholic Medical Bureau) to implement IPC CQI projects focusing on HH. In FY22 Q1, MTaPS conducted 14 mentorship activities in seven hospitals, reaching 442 HCWs (58% female, 42% male) (figure 7). A locally developed IPC mentorship tool that mirrors the WHO eight core components and multimodal strategies for improving HH was applied to track the progress of IPC implementation in these hospitals. The results from surveys were disseminated to hospital staff, and corrective actions were taken, including CME to improve IPC and HH knowledge and ongoing mentorship. The MTaPS-supported COEs have demonstrated improvement on their IPCAF and HH Self-Assessment Framework scores. Additionally, hospital IPC teams were trained to conduct routine HH observation surveys using the WHO HH observation tool, data analysis, and interpretation.

Figure 7: Health care workers mentored by MTaPS



In FY22, MTaPS plans to provide above-site catalytic technical assistance to the RHITES programs to improve the quality of health care services by strengthening IPC/WASH services in five health regions in Uganda. In Q1, MTaPS held inception meetings with the Chiefs of Party of the RHITES programs in Uganda to introduce the activity and obtain buy-in. This was followed by a one-day workshop with technical officers and the USAID Uganda Mission to further introduce the activity, reflect on progress made by the RHITES programs, and plan a way forward for FY22. The workshop brought together eight technical officers (50% female, 50% male) from seven USAID implementing partners. The next steps include a two-day workshop aimed at training health facilities on IPC/WASH and HH data collection tools and their application, data analysis, and interpretation. This will be followed by application of these tools and development of CQI plans. Equipping HCWs with these skills and knowledge will improve their capacity to implement IPC CQI plans and standards outlined in WHO and US CDC guidance documents and national guidelines.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Implement national AMS policy and guidelines to ensure proper use of antimicrobials

During Q1, MTaPS worked with Makerere University to develop a SOW for supporting the MOH and the national AMS, ASO TWC to develop a national AMS plan that includes options to regulate use, availability, and quality of antimicrobials. This will be followed by recruitment of a technical expert, a situation analysis on antimicrobial use and consumption status in the country, planning and consultative meetings, and other activities that will culminate in the national AMS plan.

As a continuation of FY21 activities, MTaPS supported the MOH and MAAIF to conduct a validation of the recently completed assessment of national policies and guidelines on antibiotic use in the country.

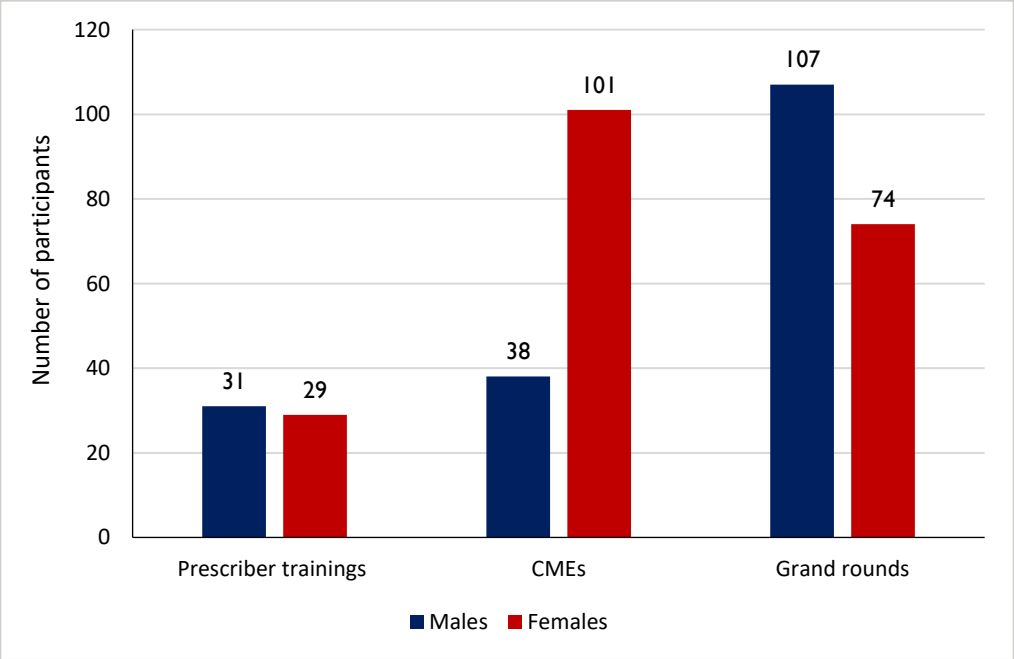
The exercise was successfully completed, and the Government of Uganda signed off on the document. This activity completes a key JEE-2 requirement under capacity level 2 for AMS: "undertake an assessment of stewardship policies and activities, including regulatory framework and supply chain management of antimicrobials, using a multi-sectoral approach". We received the following comment from the Commissioner, Animal Health:

> *"As far as our colleagues from USAID MTaPS are concerned, MAAIF appreciates you. We thank you and pray that you continue the support you are providing to the MAAIF. We need to appreciate that they are doing a very good job. Please extend our sincere thanks to the USG through USAID"*
>
> *– Dr. Anne Rose Ademun, Commissioner, Animal Health, during the validation of the report on assessment of national policies and guidelines on antibiotic use in Uganda*

Activity 3.2.1: Strengthen the Centers of Excellence for AMS

MTaPS is continuing to support six hospitals to develop as COEs for AMS through implementation of CQI projects for AMS. The projects follow a plan-do-study-act cycle overseen by the AMS team of the hospital MTC and the MTaPS technical team through regular mentorship activities. During FY22 Q1, MTaPS conducted 14 mentorship activities, including those amalgamated during WAAW (November 18–24, 2021). These included four CME activities reaching 139 HCWs (73% female, 27% male); three prescriber trainings reaching 60 HCWs (48% female, 52% male); two grand rounds reaching 43 HCWs and 138 university students (41% female, 59% male); and a social medial campaign. Figure 8 summarizes the participants reached in the mentorship activities.

Figure 8: Participants reached with mentorship activities



Working with NDA to measure and report on antimicrobial consumption at national level

MTaPS continued to support the NDA to complete phase 1 of implementation to measure antimicrobial consumption at the national level. The objective of this first phase was to assess the NDA Management Information System (NDAMIS) capabilities and gaps and generate a sample report with recommendations on what is required to implement phase 2, which will involve building a module in NDAMIS to generate routine antimicrobial consumption data.

Supporting commemoration of WAAW 2021

During WAAW, MTaPS collaborated with stakeholders to contribute to increased awareness on AMR and showcase the program's contribution to AMR containment. MTaPS supported the following activities and events during WAAW 2021:

- Supported the student AMR interest groups at two medical universities to conduct a grand round on AMR and AMS and share the work that academic researchers have done, including at affiliated teaching hospitals to improve optimal use of antimicrobials and IPC.
- Supported the first physical quarterly meeting of the ASO TWC of the One Health platform on AMR. The meeting convened 50 members of the committee, including representatives from the MOH, MAAIF, health professional bodies, and implementing partners, to discuss progress made on implementing the NAP on AMR and update the Ministries and chair of the One Health platform on plans and proposed activities for FY22.
- Conducted an office event under the "Go blue for AMR awareness" color campaign at which the MTaPS team engaged MSH staff to increase AMR awareness within their circles. MTaPS leveraged on this event to share its work and accomplishments with MSH staff and explore areas of close collaboration with the SSCS project.
- Successfully conducted three prescriber trainings during WAAW with the goal of improving prescription and use practices for antimicrobials in upper respiratory tract infections, urinary tract infections, and surgical prophylaxis.

Activity 3.2.2: Strengthen pre- and in-service training to enhance HR competence in AMR

During FY22 Q1, MTaPS developed the SOW aimed at identifying a technical expert to support the Uganda National Council of Higher Education and the health professional councils to develop curriculum competencies for undergraduate training on AMR for health institutions. The technical expert will write an education brief to the National Curriculum Development Center and the Ministry of Education and Sports that synthesizes existing knowledge and highlights the need to incorporate AMR training into education programs at all levels in Uganda.

EBOLA RESPONSE ACTIVITIES

IPC, INCLUDING WASH

MTaPS supported the MOH Public Health Emergency Operations Center to update the national EVD preparedness and response plan for October 2021–March 2022 with the aim of enhancing Uganda's capacity to prevent, detect early, and effectively respond to EVD importation from the DRC amidst its response to the COVID-19 pandemic. This was accomplished through two workshops that reviewed and updated the available plans and developed scenarios aligned with the preparedness and response pillars.

VACCINE SUPPORT

MTaPS worked with the NDA and its stakeholders to develop a pocket guidebook for PV for EVD vaccines. This was accomplished through a three-day workshop that brought together experts from the pharmaceutical sector, the MOH, and clinical practice. The guide provides stepwise information for HCWs on how to handle adverse events following immunization with available EVD vaccines.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Publish next newsletter	Feb 2022
Organize training on IPC/WASH data collection tools for USAID RHITES implementing partners	Jan 2022
Conduct AMS and IPC mentorship activities in supported health facilities	Mar 2022
Conduct workshops with professional councils and stakeholders	Mar 2022
Conduct stakeholder validation meetings	Mar 2022
Conduct HH trainings in supported health facilities	Mar 2022
Support meetings of the ASO TWC	Mar 2022
Conduct workshops with student AMR interest groups	Mar 2022
Benchmark learning activities	Mar 2022
Assess existing system for monitoring antibiotic use	Mar 2022
Engage a consultant for software development of a module within NDAMIS to routinely generate reports on consumption of antimicrobials at the national level	Mar 2022
National level report on consumption of antimicrobials	Mar 2022

MONITORING, EVALUATION, RESEARCH AND LEARNING

MONITORING & EVALUATION ACTIVITIES

DEVRESULTS DATA MANAGEMENT SYSTEM

During Q1, all the Q1 indicators and associated annual targets were uploaded onto DevResults in preparation for Q1 data entry by country and HQ teams. Prior to data entry, staff in Asia, Francophone Africa, Anglophone Africa, and HQ staff responsible for reporting on M&E indicators received a three-day mandatory training conducted by the Monitoring, Evaluation, Research, & Learning (MERL) HQ team on the Data Management SOP and how to use and enter data into the DevResults platform. Q1 data will be submitted through the MTaPs DevResults platform.

MERL HQ team in collaboration with MSH Strategic Information (SI) and Deloitte Data Analytics teams, explored how to supplement the existing Dev Result Dashboards with additional interactive Powerbi dashboards. A detailed plan has been developed to build the additional interactive dashboards for MTaPS staff to use routinely for day-to-day technical and management decision making. In Q2/Y4, the plan will be operationalized and it is the goal for MTaPS staff to have access to the Powerbi dashboards for routine use and decision making.

COVID-19 TRANSITION TO DEVRESULTS

MTaPS successfully implemented the transition plan to transfer COVID-19 indicators and reporting to DevResults. In Q1, the MERL team, in collaboration with technical leads and country teams, uploaded historical COVID-19 into DevResults, updated the SOP for routine data collection and reporting for COVID-19, and country teams received training to enter and manage COVID-19 data in DevResults.

COVID-19 EXTERNAL DATA QUALITY AUDIT (DQA)

During PY3, MTaPS partnered with Data.FI to conduct an external COVID-19 DQA. The DQA assessed MTaPS' data management and reporting systems, specifically the process, guidelines, and tools used to collect COVID-19 data and the quality of reported data. During Q1, MTaPS implemented DQA recommendations and developed resources to strengthen MTaPS' data management and reporting system.

COVID-19 IN-COUNTRY ACTIVITY REPORTS

MTaPS has engaged with local stakeholders to respond to the pandemic in 13 countries. MTaPS has implemented capacity-building and IPC activities, strengthened emergency SCMS, and developed SOPs to prevent and reduce the spread of the disease. MTaPS country teams have been performing data collections to track the implementation and progress of MTaPS' COVID-19 activities. MTaPS has generated over 100 country reports monitoring and evaluating COVID-19 activity progress, including the number of health workers who received COVID-19 training and facilities in compliance with IPC COVID-19 guidelines. In Q1, MTaPS continued to update country technical summaries, sharing the critical role MTaPS' GHSA and PSS approach played in the COVID-19 rapid response and key lessons

from MTaPS' COVID-19 response implementation. In Q2, MTaPS will finalize and disseminate COVID-19 country technical highlights and briefs.

DATA QUALITY ASSURANCE SOP

In Q3/Y3 Data Quality Assurance SOP was developed to ensure a higher standard of data quality and promote active use data for informed decision making. The SOP focuses on using three critical approaches to preventing data quality issues and addresses short- and long-term problems. Integration of automated data quality checks in DevResults, continuous data quality assurance activities at country levels, and internal and external data quality assurance conducted by MTaPS, and USAID will provide a comprehensive strategy to ensure quality data and strengthen the data management system. Data quality assurance activities will be implemented through a collaborative effort between the HQ and regional MERL teams and country teams. In Q1/Y4, the HQ MERL team developed an implementation plan to conduct the DQA. In Q2, HQ MERL team will orient staff on the Data Quality SOP and implementation plan.

KNOWLEDGE MANAGEMENT ACTIVITIES

HTASIALINK CONFERENCE, OCTOBER 11, 2021

To support countries in the Asia region with implementing HTA on their journey to UHC, MTaPS is collaborating with HTAsiaLink—a forum for HTA agencies in the Asia-Pacific region. The forum is working to advance HTA research and implementation in the region through collaborative research.

As part of this collaboration, MTaPS hosted a workshop at the 2021 HTAsiaLink Conference titled "Health Technology Assessment pathways in LMICs: Scaling up for sustainability of UHC in Asia" on October 11, 2021. Held in partnership with the Indonesian MOH, the event convened 220 participants from the Asia region, along with global stakeholder organizations, to discuss the progress of HTA in Asia. The event, a workshop conducted in English with simultaneous interpretation in Bahasa Indonesia, Tagalog, Thai, and Vietnamese, aimed to raise awareness of pathways, processes, policy options, and best practices for scaling HTA to LMICs and to convene diverse HTA stakeholders, including policy makers; HTA agency personnel; academia; and the private sector (e.g., manufacturers, manufacturer associations).

The workshop oriented attendees on the stepwise approach to implementing HTA and tools available to support users in deciding why, when, and how to develop their own HTA pathway. Case studies from India and Ukraine illustrated the pathways to HTA institutionalization and the challenges and successes therein.

The shared insights and experiences led to rich discussion in breakout sessions on investments needed to support HTA, the global movement toward HTA, experience in the institutionalization of HTA, and the status of HTA in Asian countries.

Key takeaways from the workshop are summarized below:

- UHC benefit packages vary among countries. Each has different needs and priorities, resulting in different recommendations depending on the country's situation.
- It is important to understand the mandate of an organization that is utilizing HTA.
- Countries with different income levels tend to use HTA for different purposes, reflecting the variability of needs for HTA.
- HTA is linked to decision making at both the macro and micro levels of hospitals, and the adoption of HTA is highly contextual. It is advised to start incrementally with a situational analysis and capacity assessment.
- Sharing real life examples is crucial to understand the process for countries new to HTA and how to adapt it to their own context.
- Stakeholder involvement is key in all aspects of HTA institutionalization. It is quintessential across the HTA process, including institutional set up and collecting and contextualizing evidence.
- Stakeholder collaboration is an enabler to political will to support UHC.
- HTA networks and international agencies can act as advisors for countries in institutionalizing HTA, but the decision should be made by the country's stakeholders to ensure a better fit with its situation and needs.

This workshop is the first in a series to support HTA and priority setting in Asia, with a second deep-dive session to be conducted in early 2022.

AMERICAN PUBLIC HEALTH ASSOCIATION ANNUAL MEETING, OCTOBER 24-27, 2021

At the 2021 APHA Annual Meeting held in October 2021, MTaPS' Farhana Akhter presented on "Establishing an emergency supply chain system for continuous access to COVID-19 commodities in Bangladesh."

The COVID-19 pandemic clarified the need for a functional emergency supply chain management (eSCM) system in Bangladesh; one providing government entities with real-time stock status in order to ensure the availability of COVID-19 commodities in health facilities. The MOHFW requested that MTaPS develop a COVID-19 eSCM module to integrate with the country's eLMIS. MTaPS helped streamline and enhance the ability of the MOHFW's DGHS to respond to the pandemic through the timely procurement and supply of COVID-19 commodities. This strengthened the ability of the Government of Bangladesh's supply information system to respond to the commodity demands of the COVID-19 pandemic and avert stock outs in health facilities across the country.

At APHA 2021, MTaPS' Mohan Joshi presented on "Experiences and lessons from using GHSA perspectives and approaches to implement AMR containment efforts in 11 countries." He discussed the critical importance of mainstreaming GHSA perspectives and approaches in addressing AMR by demonstrating how the GHSA AMR Action Package can help countries make evidence-based progress towards greater AMR containment as measured by WHO's benchmarks tool for IHR, and by sharing the

practical lessons learned from MTaPS GHSA AMR activities in 11 countries. The GHSA aims to address AMR as a global health security threat, using the JEE and WHO Benchmarks for IHR Capacities to increase country capacity. MTaPS has been using GHSA approaches in 11 countries to help contain AMR since 2019.

MTaPS PSS in Practice Knowledge Exchange

"Health Technology Assessment Pathways in LMICs: Scaling Up for Sustainability of UHC in Asia," October 26, 2021.

At a MTaPS Knowledge Exchange held on October 26, 2021, Dr. Christian Suharlim, MD, MPH presented on "Health Technology Assessment in LMICs for sustainability of universal health coverage (UHC) in Asia". Dr. Suharlim is the HTA lead for MTaPS Indonesia, and a Senior Technical Advisor for Pharmaceutical Economics and HTA with MSH.

All health systems face the challenge of managing and allocating limited resources.)HTA is one tool for those making difficult distributional calls. HTA is a means of informing systematic and transparent priority setting processes that uses explicit methods to determine the value of a health technology.

Co-developed by MTaPS and MSH, A Roadmap for Systematic Priority Setting and HTA is a practical guide for policy action in LMICs to successfully implement HTA and paves a road to a journey to sustainable UHC and self-reliance.

MTaPS Global Learning Series Webinar

"Regional Harmonization of Medicines Regulation: Reaping Benefits Beyond Borders," November 10, 2021.

MTaPS held a webinar on November 10, 2021 to share what regional regulatory harmonization of medicines offers and the ongoing efforts in Africa where MTaPS is engaged. The webinar featured a panel discussion with global, regional, and national actors on the challenges and opportunities to expedite the journey toward regulatory harmonization in Africa.

Access to safe, effective, quality-assured medicines, vaccines, and other essential medical products is at the heart of a robust health care system that can deliver quality health care services. Countries in Africa are disproportionately affected by poor quality medicines and inequities in access to treatment—the less than 1% COVID-19 vaccination rate in low-income countries versus more than 50% in high-income countries is a stark example. Countries in sub-Saharan Africa are particularly vulnerable to disruptions in medicine supply, with 70 to 90% of their medicine needs met by imports. Poorly functioning and fragmented NMRAs are a foundational problem behind the lack of accessibility to quality-assured medical products.

The webinar is a timely reminder that harmonizing medicines regulation regionally across countries is a transformative and urgent initiative for health care. It provides the impetus for convergent and harmonized medicine regulation at the continental level, facilitating the work undertaken by the newly established African Medicines Agency. The rewards promise to be big, but the road to get there is long.

USAID MTaPS and Center for Global Development (CGD) Forum Webinar

"Overcoming the Barriers to Entry: How Can We Improve the Registration Process for Essential Medicines in Low- and Middle-Income Countries?" November 30, 2021.

Ineffective and inefficient registration processes impede access to lifesaving, quality-assured essential medicines. As a result of inadequate legal provisions, limited capacity within National Regulatory Authorities, and long and unpredictable registration processes as well as low profit margins and disincentives for manufacturers, quality-assured products may not be registered or be slow to enter in many LMIC markets. The absence of registered medical products gives rise to stock outs and creates voids that may be filled by substandard or falsified products, especially in countries with weak enforcement.

A variety of approaches including work-sharing, reliance, harmonization, and WHO's collaborative registration procedure have been proposed to mitigate these challenges. However, recent findings on registration of medicines for MNCH published by MTaPS suggest that these mechanisms have not been fully deployed and may not be increasing the number of registered products in practice. The current pandemic has also shown the importance of strong regulatory systems in securing access to essential quality-assured medical products, but questions remain on the best way to develop and maintain regulatory capacity in low resource settings.

To explore these issues, CGD and MTaPS held a joint webinar on November 30, 2021 on how to improve national registration processes to strengthen access to essential medicines. Speakers discussed the various strategies available, how innovations implemented for COVID-19 health products might be applied to other medicines, and how global health donors and LMIC policy makers can support capacity building for efficient registration.

Miscellaneous Support for MTaPS Work Plan and MEL Plan Refinement for PY4

The MTaPS Knowledge Management (KM) Advisor supported the work planning process by providing KM and Learning inputs into all MTaPS portfolio PY4 work plans and collaborating with the country and technical teams to refine KM and Learning activities and events to be implemented in PY4.

The KM Advisor worked with country and technical leads to identify knowledge products to be developed by each country and technical portfolio in PY4 and identified topics for knowledge exchanges and conferences where the country and technical teams will present in PY4. These products and events were included in PY4 country and portfolio work plans and integrated into the MTaPS Global PY4 KM work plan to inform and track KM activities across the project. The KM Advisor also finalized the Global MTaPS KM work plan once PY4 country and technical work plans were approved by USAID.

The KM Advisor also updated the KM and Learning section of each country and technical portfolio's MEL Plan.

RESEARCH ACTIVITIES

MTaPS presented a total of six presentations or posters at three global conferences this quarter (Table 21). In addition, the program finalized the publication of a manuscript entitled *Exploring facilitators and barriers to introducing health technology assessment: a systematic review* in the *International Journal of Technology Assessment in Health Care*. The manuscript—based on the systematic review conducted for the HTA activity done in program year 2 under Cross Bureau—identifies the facilitators and barriers to successfully institutionalizing HTA. Under the GHSA Uganda portfolio, MTaPS submitted a manuscript entitled *Point prevalence survey of antibiotic use across 13 hospitals* in Uganda. The MTaPS MNCH team also continued to finalize a manuscript entitled *The Registration Status of Maternal, Newborn and Child Health Medical Products: Evidence from Nine Countries*. The manuscript reports on the analysis of registration status of 18 essential MNCH tracer medicines in nine countries and identifies the factors affecting registration. The findings indicate the need for legal, organizational, and procedural changes as part of a mix of short-,mid-, and long-term structural solutions.

Table 22. Conference participation throughout the quarter.

Conference	Conference Date	Title
American Public Health Association 2021 Annual Meeting	October 24-27, 2021	Establishing an emergency supply chain system for continuous access to COVID-19 commodities in Bangladesh
		Experiences and lessons from using GHSA perspectives and approaches to implement AMR containment efforts in 11 countries
		Improving IPC Practices: Interventions in Six Tanzanian Hospitals*
American Society of Tropical Medicine and Hygiene Annual Meeting	November 17-21, 2021	Antimicrobial consumption surveillance in a resource limited setting: Findings from 13 hospitals in Uganda
		Building capacity in IPC in healthcare settings during the COVID-19 pandemic in Bangladesh
		COVID-19 IPC Outcome Assessment in USAID MTaPS-Supported Health Facilities
International Society of Pharmacovigilance 20th annual scientific meeting	November 8-10. 2021	Harmonizing PV Activities in Regional Economic Communities in Africa-Experiences from EAC and IGAD

LEARNING ACTIVITIES

This quarter, MTaPS updated a program-wide Global and Country learning agenda to reflect the approved Year 4 MTaPS Work Plans. The learning agenda objectives include the following: (1) document and share the latest knowledge, information, and best practices to promote learning, improve

decision making (adaptive management), and enable innovation; (2) measure progress toward achieving MTaPS' objectives; (3) measure MTaPS' contribution to PSS; (4) set the stage for MTaPS' legacy and the footprint for post-MTaPS; (5) use as a foundation for the end-of-project report and end-of-project events; (6) contribute to the global learning agenda on pharmaceutical strengthening; and (7) serve as a key resource for the end-of-project evaluation. For each of the global and country learning questions, staff across multiple teams in HQ and country were assigned to develop the learning products over year 4 and year 5.

LESSONS LEARNED FROM PROGRAM IMPLEMENTATION

OBJECTIVE 1: PHARMACEUTICAL SECTOR GOVERNANCE STRENGTHENED

In the **Asia Region**, MTaPS learned that regional activities that bring together different member states in a defined region enable convergence of medicines regulatory standards. MTaPS is facilitating policy convergence of regional technical requirements for medicines registration among Asian countries. However, some countries are not actively participating in the harmonization initiatives due to other priorities, resulting in a lack of progress on convergence of technical requirements for medicines registration. Routine advocacy efforts by MTaPS on the importance and benefits of harmonization helped rejuvenate country participation. Establishing and maintaining a close working relationship with the relevant institutions allowed MTaPS to discuss the benefits of this activity with regulators.

In the **Asia Region**, lengthy bureaucratic procedures within Asian networks caused delays in reaching an agreement on priority areas for technical assistance. MTaPS could not embark on priority areas for support due to lengthy bureaucratic procedures for consent from Association of Southeast Asian Nations (ASEAN) member states. To mitigate delays, MTaPS plan approaches individual countries independently through a "bottom up" approach while pursuing support through the networks.

In the **Intergovernmental Authority for Development (IGAD)/East African Community (EAC**) region, uptake of quality systems including pharmacovigilance is not being embraced by the pharmaceutical industry. To address this, MTaPS engaged several industry players in a regional IGAD online seminar where the discussion centered on the benefits to the industry stemming from regulatory compliance. It also helps when regulators and other government stakeholders e.g., Ministry of Trade, Ministry of Finance, etc., can create incentives for regulatory compliance and growth. Support for the local pharmaceutical industry requires a multipronged approach that links the regulatory compliance components to the end results in terms of benefits arising from the strengthened regulations including but not limited to procurement quotas.

In **Nepal**, MTaPS is working for the revision of Drug Act of Nepal and a Zero Draft was prepared by an international consultant. The involvement of a local legal consultant with experience in law revision and in working with the ministries, and close collaboration with technical experts and a representative from the Ministry of Law and Ministry of Health, resulted in the third draft, which reviewing authorities agreed upon. Although the law was revised and updated, it was challenging to move forward with the approval process in spite of good support for and good understanding of the need for a legislative revision. The time required for review by the Ministry of Law and the Ministry of Health was extensive.

The initial plan was to have the international legal experts visit Nepal and sit in meetings with approvers to discuss and clarify all the revisions needed. That type of process from the start would have ensured strong stakeholder and policy makers' involvement, however, the plan was hindered by COVID-19, and it became a virtual and less effective process. Wide consultation and discussion in face-to-face meetings are needed for legislative updates and revisions. For any future documents requiring review from the authorities, it is better to involve them from the drafting phase and creating a collaboration between all expertise needed (legal and regulation) to review the documents. Involvement of reviewing and approving authorities from the beginning of drafting of law brings better results.

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

In the **Philippines**, empowering the end users of the Pharmacovigilance Monitoring System (PViMS) and helping them understand the benefits of its implementation led to successful PViMS trainings for targeted audiences. PViMS was updated to address technical issues stemming from its previous version and to make it more user-friendly. MTaPS supported the Philippines Department of Health (DOH) Pharmaceutical Division (PD) to conduct trainings that targeted different users (reporter and analyst) at various levels (central, regional, Programmatic Management Drug Resistant Tuberculosis [PMDT] sites). The trainings were designed to provide background on pharmacovigilance (PV) and highlight the importance of reporting adverse events for program management. The trainings also included hands-on exercises for the participants to navigate the system and get the feel of how to use it. At the end of every training, participants were asked to share their feedback about the trainings and their experience navigating the PViMS platform. A majority of trainees provided positive responses on the use of the updated system. While not all were able to do the hands-on exercise due to internet issues and lack of appropriate devices, the participants were receptive to their roles in adverse events (AE) reporting and data management. Participants expressed that the newer version of PViMS is better and adopting it for AE data reporting and management will be useful in their program implementation, especially in capturing the safety profile of newer anti-tuberculosis (TB) regimens.

The push by the National Tuberculosis Program (NTP) to adopt innovative approaches in data reporting and management is a contributing factor in advancing these trainings. As the system owner, the PD also mobilized public health pharmacists and National Drug Policy Compliance Officers to support the NTP's endeavors in the active surveillance of anti-TB medicines.

Any staff involved in the implementation of the NTP has a significant role to play in reporting AE and data management. Being empowered and understanding their roles in AE reporting and management will enable the NTP staff to make programmatic decisions regarding implementation of anti-TB regimens.

In the **Philippines**, given the limitations in facilitating face-to-face trainings, MTaPS continues to maximize the use of technology which enabled the PViMS trainings to be conducted within a shorter period, targeting distinct types of users. MTaPS maximized WebEx as a training platform to conduct plenary and breakout sessions during the PViMS training. To allow the participants to navigate the system, MTaPS provided dummy accounts on the training site and designed hands-on exercises for the breakout sessions. The plenary session provided background and general directions in navigating PViMS

while the breakout sessions became a venue for the participants to explore the features of PViMS according to their user level. The training participants were informed in advance to use a laptop/desktop computer during trainings, but not all were able to attend the training using the recommended devices due to connectivity issues. While this was a challenge, supplementary materials such as user manuals and additional exercises were provided and the participants were given continued access to the training site after the training ended, allowing them to practice AE reporting and analysis.

Being unable to conduct face-to-face training is not a hindrance to imparting knowledge to the target users on how to use and navigate PViMS. Virtual training can be considered if the training design has been planned accordingly.

In the **Philippines**, active engagement of stakeholders (various Philippines DOH units, MTaPS and other implementing partners [IPs]) in participatory data analysis was promoted as a strategy to empower partners, enrich the data gathered and improve analysis of Procurement and Supply Chain Management (PSCM) data. To support building the capacity on how PSCM data is analyzed, MTaPS provided technical assistance to the PD to analyze the data from within their unit. The MTaPS Philippines team collaborated with the PD and various DOH units to investigate their PSCM data and per supply chain segment. The team also discussed the process of analysis and produced a technical report that was discussed and collaborated on with DOH units and IPs.

This exercise had two objectives: to provide technical support to DOH in their analysis of PSCM data towards more informed planning, and to identify and capacitate a champion (in this case, a unit) that will provide longer term and sustainable technical assistance to DOH units in the analysis of their PSCM data.

The pandemic and the current challenges faced by DOH in the management of their COVID-19 emergency program made them realize the need to improve their data analysis. Also, the Disease Prevention and Control Bureau of the DOH, under which the health programs fall, underwent a major restructuring. Because of this, it is important to PD that an immediate capacity building of data analysis be done to ensure that knowledge will be transferred despite the restructuring. The MTaPS team intensified its collaborative strategy with the PD and other health programs to produce a comprehensive data analysis process. The team wanted the DOH to adopt MTaPS' process of data analysis to better utilize their wealth of PSCM data. Moving forward, the MTaPS team envisions that the DOH PD will take ownership in leading the data analysis of PSCM data in collaboration with various DOH units.

In the **Philippines**, maintaining transparency and coordination among the stakeholders proved to be effective in conducting a series of trainings on the rollout of NTP digital tools (i.e., PViMS, ITIS mobile, and Electronic TB Medical Advisory Committee [eTBMAC]). The NTP aimed to roll out these digital tools simultaneously and this involved coordination among multiple partners to produce a training design that would accommodate participants from all implementing sites. This was done to avoid setting up multiple meetings that would require pulling out the same personnel since all digital tools have a common goal of supporting NTP data management and these involve the participation of the same personnel from the implementing sites.

While MTaPS is concerned with the rollout of PViMS, collaborating with other implementing partners and NTP was helpful to avoid duplication of efforts. MTaPS provided relevant information in a timely

manner that assisted the NTP to prepare and have ownership of the training on the digital tools. A two-day training on all digital tools was successfully conducted and also served as a venue to elaborate on the programmatic details of PViMS implementation together with ITIS mobile and eTBMAC.

Setting up the date of the training was initially a challenge given the difference in the timelines of the IPs involved in PViMS, ITIS mobile and eTBMAC. After MTaPS shared the PViMS training design together with the learning objectives and program, with the leadership of NTP, the stakeholders were able to agree on the dates of training and planned accordingly. The NTP set a target of the first quarter of 2022 to fully adopt the digital tools, thus a combined training was conducted in December 2021.

Keeping communication lines open with the partners and DOH played a role in ensuring the smooth preparation and execution of the training, offering a venue to collaborate and exchange ideas to assist the NTP in effectively training the personnel involved in the rollout of the digital tools.

Objective 3: Availability and Use of Pharmaceutical Information for Decision Making Increased and Global Learning Agenda Advanced

In **Bangladesh**, a well-functioning electronic logistics management information system (eLMIS) platform enabled effective decision making and timely distribution of short-dated Family Planning (FP) commodities by the Directorate General of Family Planning (DGFP). For better monitoring and supervision, it will be helpful to enhance the capacity of national- and sub-national-level managers on using data for decision making and compliance with monitoring the functionality of the existing system.

In **Bangladesh**, as per the DGFP Operational Plan, workshops organized by DGFP for partners were helpful in conveying a key message on the consequences of Reproductive Health (RH) commodities stock out. However, workshops were more focused on the delivery of formal opening and closing remarks from high-ranking officials. Allocating more time for technical sessions when designing future workshops will be more beneficial to participants.

Objective 4: Pharmaceutical-Sector Financing, including Resource Allocation and Use, Optimized

In **Nepal**, there are about 30,000 pharmacies recorded under the Nepal Department of Drug Administration (DDA) database. The population of pharmacists, including pharmacy assistants, is about 10,000, so approximately 20,000 pharmacies do not have a pharmacist. Introducing accredited drug sellers is a new concept that needs to be addressed and accepted by key stakeholders in the country. The concept of drug sellers needs to be well understood and comprehensive information about its rationale should be made available for all concerned to avoid misunderstanding and rejection of the concept.

Introducing new concepts, policies or strategies is always challenging and often involves behavior change. However, to ensure acceptance, stakeholder involvement and support is critical, especially from those identified in a stakeholder analysis to be in opposition to the new concept being advanced.

After a presentation of the drug sellers/accredited drug dispensing outlet (ADDO) program, the concept did not gather expected support from the major stakeholders and the pharmacy professional

associations, although implementing ADDOs could contribute to improving pharmacy services for pharmacies not managed by pharmacists.

DDA faced a lack of clarity among the stakeholders on the rationale of ADDO professional bodies. Critical stakeholders were reluctant to accept the new concept and put pressure on the DDA and the Ministry of Health and Population (MOHP) to block it. There was resistance from the professional bodies.

Apart from pharmacies not managed by pharmaceutically trained staff having poor service provision it is a challenge for DDA to inspect all 30,000 registered pharmacies. With ADDOs, it may be possible to transition inspection and quality improvement of drug shops to the private sector. There is interest in this new role within the pharmacy association. There are concerns, though, that training non-pharmacists as proposed in the ADDO model would be allowing and legalizing non-pharmacists to get involved in the sale and distribution of medicines and be mistakenly recognized as professionals.

In hindsight, MTaPS should have started with a thorough stakeholder mapping to identify stakeholders likely to be in opposition, then, in order to convince opposing groups, it would have been prudent to then hold discussions and presentations to create clarity and understanding of the new ADDO concept. Moving forward, using this process will help persuade those stakeholders in opposition to the benefits of the concept. It is advised to also hold a meeting with the pharmacy professional organizations to better clarify the concept.

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

In the **IGAD/EAC** region, the rate of PV reporting by health facilities and other stakeholders is affected negatively by the lack of provision of timely guidance on the best course of action to be taken to address safety complaints; and the lack of feedback on actions taken by health facilities. This has been cited by most health facility personnel during training and support supervision. MTaPS engaged the cross-border areas on safety monitoring and training on targeted spontaneous reporting to boost reporting rates especially for adverse events following immunization (AEFI) with the aim of collecting adequate data on vaccine safety to inform decision making at national level. MTaPS faced challenges due to the low staffing capacities within the regulatory authorities and a lack of review mechanisms of the safety reports. MTaPS enhanced the feedback mechanisms of the regulatory authorities through various channels including periodic journals, stakeholder engagement forums, and direct follow-up and feedback. Continuous engagement and feedback on safety monitoring findings and regulatory actions taken are key to build confidence in the programs being implemented by the regulators as well as allay any safety concerns on health products and technologies.

In **Bangladesh**, infection prevention and control (IPC) and antimicrobial stewardship (AMS) committees were created, and utilization of training resources and checklists, helped improve the performance of these committees., Hospital authorities gradually took ownership of their Global Health Security Agenda (GHSA) IPC and AMS activities after being enabled by active facilitation, effective communication, sharing of evidence-based information, regular monitoring, sharing of

performance/progress, assessing, and reviewing gaps and challenges, and training/meeting/workshops conducted by MTaPS.

In **Burkina Faso**, the provision of guidance to health workers, use of appropriate tools and application of lessons learned from other countries can help improve health quality by Drug and Therapeutics Committee (DTC) interventions. DTCs must be the central technical committee for good practices advocacy and implementation in terms of therapeutic care within hospitals. DTCs need appropriate training to ensure their roles in antimicrobial stewardship.

In **Democratic Republic of Congo (DRC)**, the health system depends heavily on partners' support. Upstream collaboration between partners is important to advocate in the same direction, not only during the implementation phase, but also from the planning phase. The Ministry of Health and the Ministry of Economy, supported by development partners and collaborators including the Global Fund, World Health Organization (WHO), and United States Agency for International Development (USAID), advocated for restructuring the cost of health products to increase access to health products and services by vulnerable populations. When advocacy for one issue is done in collaboration with several partners, there is a greater chance of success than if it is done separately or in silo by one partner.

In **DRC**, organizing and conducting regular joint visits for field monitoring can help avoid duplication of partner interventions and make better use of donor and partner resources. USAID GHSA partners including Food and Agriculture Organization (FAO), Infectious Disease Detection and Surveillance (IDDS) program, Africa One Health University Network (AFROHUN), and Breakthrough Action executed an integrated visit for field monitoring of GHSA activities which resulted in improved and mutual understanding of partner interventions and how each partner supports the health system. The appointment of the GHSA activity manager at the DRC USAID Mission facilitated better coordination between USAID GHSA partners in the country.

In **Jordan**, during World Antimicrobial Awareness Week (WAAW) 2021, MTaPS supported Jordan's Ministry of Health (MOH) to raise community awareness on antimicrobial resistance (AMR). MTaPS collaborated with the MOH Pharmacy and Clinical Pharmacy Directorate and Communicable Diseases Directorate to support the MOH Health Communication and Awareness Directorate in developing a set of health communication messages targeted at the community to improve understanding and awareness of AMR, in line with the National Action Plan (NAP) on AMR.

These awareness activities are supporting the MOH to achieve the first objective of the NAP-AMR to improve awareness and understanding of AMR through effective communication, education, and training. The health messages disseminated via social media posts, shared by the MOH's social media platforms, focused on explaining the concept of AMR and the dangers of its impact, using resistant bacteria as an example. Other health messages pertained to the safe use of antibiotics to help tackle antibiotic resistant bacteria and infection prevention practices. These activities demonstrated the importance of multi-stakeholder engagement and collaboration to support the MOH in improving awareness and understanding of AMR among the community and healthcare providers.

The experience of identifying key strategic stakeholders for involvement with the activities and engaging them ensured that the developed health communication messages were technically sound,

comprehensive, and appropriate for the target audience. Moreover, it allowed all stakeholders to build a sense of ownership towards the activities and learn how to collaborate to achieve shared objectives.

This is considered a lesson, as it was challenging to coordinate between the different stakeholders to try to reach a middle ground between them, while ensuring all their needs were met. A thorough stakeholder analysis and engagement, which took place early on, ensured that all those involved in the activities were actively engaged and contributed to the planning and execution of the activities. Moreover, the collaboration among the different stakeholders ensured that activities were appropriately planned and that the deliverables were in line with the objectives of the MOH for WAAW.

The main challenge for the MTPS Jordan team was to ensure the deliverables would be met within the tight timeframe allotted and that buy-in was regularly obtained from all stakeholders during each step of the process.

Factors contributing to this success were the elevated level of communication, coordination, organization, and time management of the MTaPS' team. Moreover, the high political acumen of the team members and their excellent relationships with all relevant stakeholders were key drivers for success.

The WAAW 2021 experience will serve an example for the implementation of future awareness-raising activities. Moving forward, it is important to allow ample time to engage all relevant stakeholders to ensure buy-in is appropriately obtained from all those involved for smooth implementation of activities.

In **Kenya**, the establishment of county AMS governance structures and IPC management support are integral components to ensure the successful implementation of AMS interventions at both county and facility levels. Since the establishment of management and governance structures (County Antimicrobial Stewardship Inter Agency Committees [CASICs]) and IPC focal person appointment) there has been an evident increase in the number of implemented AMS/IPC activities in those counties. The counties without these important structures in place, such as Kilifi and Kisumu, have demonstrated slower progress. In Nyeri, where there is strong management support for AMS/IPC, the county has steadily progressed with their continuous quality improvement (CQI) action plans. This demonstrates the importance of leadership and management buy-in to ensure that IPC/AMS agendas are pushed forward in counties. It further allows for accountability of healthcare workers to management and supports sustainability of the AMR containment agenda. Sharing the success stories of other counties as models and ensuring the sensitization of leadership and management on the importance of AMS and IPC in curbing AMR is a hallmark of ongoing MTaPS support to counties in establishing strong leadership structures for IPC/AMS.

In **Kenya**, the development of the NAP IPC monitoring and evaluation (M&E) framework will enable IPC activity implementation reporting and monitoring to be conducted, allowing for the comprehensive monitoring of the IPC agenda. Previously the progress of the IPC agenda was not formally or comprehensively monitored in a way that would enable appropriate and effective forward planning. The development of NAP IPC M&E framework brings IPC to the forefront of the country's agenda as is now considered a national requirement. MTaPS provided technical support for this activity, ensuring that the MOH and other IPs were supported to realize the development of this important framework. Collaboration between the MOH, the MTaPS technical team and other IPs was the driving force for the

successful development of the NAP IPC M&E framework. A shared vision allowed for effective collaboration and support for the implementation of the NAP IPC M&E framework.

In **Nigeria**, initial monitoring of facility-level implementation revealed poor admission and hospitalization rates at state-owned secondary healthcare facilities where the AMS and IPC programs have been piloted. Patient patronage across state-owned secondary healthcare facilities was poor, especially those requiring hospitalization, making it impossible to implement AMS and IPC activities and demonstrate the impact of MTaPS-supported interventions in improving treatment outcomes and well-being of patients in those facilities. Preference for faith-based facilities is much higher than state-owned facilities, especially among patients requiring in-patient care, necessitating replacement of two of the supported secondary healthcare facilities hitherto supported by MTaPS. Patronage across faith-based facilities is much higher among the general populace. The main contributing factors include religious affiliation, cost and quality of services received. In the initial baseline assessment, a component on admission and hospitalization rate should have been included as opposed to just bed capacity and occupancy.

In **Nigeria**, MTaPS faced challenges in getting facility- and state-level output on activity reports. There is currently no IPC- or AMS-related data collection/monitoring tool at the supported facilities and AMR program-specific M&E tools are not available. Therefore, getting facilities- and state-level program output from stakeholders is challenging. In the absence of program-specific M&E tools, WHO standard tools can be deployed or adapted. The DHIS2 system can also be reviewed and adapted for AMR program reporting. It is recommended that documentation tools and data collection templates be deployed to make activity reporting seamless at both state and facility levels.

In **Tanzania**, healthcare providers reported on IPC using a paper-based system. With MTaPS support and training, healthcare providers are reporting online via the DHIS2 platform which makes for a sustainable and improved reporting system. In addition to technical support from MTaPS, the Ministry of Health, Community Development, Gender, Elderly, and Children (MoHCDGEC)'s leadership and support was instrumental in spearheading the use of a sustainable means of IPC reporting and reporting system for the country.

ACTIVITIES FOR NEXT QUARTER

Activity and Description	Date
Monitoring & Evaluation	
Prepare DevResults for Q2 Data entry	Mar 2022
Product Power BI dashboards for DevResults	Mar 2022
Conduct Dashboard Training and Data Use Training	Mar 2022
Conduct Training on DQA SOP and Plan	Feb 2022
Implement DQA Plan	Feb 2022
Knowledge Management	
PSS in Practice Knowledge Exchange	Jan 2022
PSS in Practice Knowledge Exchange	Feb 2022
PSS in Practice Knowledge Exchange	Mar 2022

Global Learning Series Webinar	Jan-Mar 2022
Learning Agenda	
Launch the Global and Country learning Agenda - Meeting with Learning teams and contributors	Feb 2022
Finalize the Global and Country Learning Agenda Plan	Feb 2022
Implement Global and Country Learning Agenda Plan	Feb-Mar 2022
Research	
Coordinate abstract submissions for the 7th Global Symposium on Health Systems Research	Jan-Feb 2022

ANNEX 1: MTAPS SUCCESS STORIES

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

SUCCESS STORY

Enabling the rational use of antimicrobials in the animal sector in Burkina Faso

The animal sector, just like the human sector, is facing AMR and its consequences. In Burkina Faso, the USAID MTaPS program is supporting the government to combat AMR in the farming sector by developing the country's first national guidelines on the rational use of antimicrobials for animals.

National stakeholders during the approval of guidelines for the rational use of antimicrobials in the farming sector. Left to right: Dr. Joseph Savadogo, General Director for Veterinary Services; Dr. Adama Maiga, Technical Advisor at the Ministry of Animal and Fishing Resources; and Dr. Henri Kaboré, MTaPS Program Director (Photo credit: MTaPS)

The farming sector in Burkina Faso is dynamic and contributes to more than 18% of the gross domestic product, providing employment opportunities for a large number of stakeholders in urban and rural settings.

Like the human sector, the animal sector suffers from antimicrobial resistance (AMR)-related issues. Often, prescription, storage, and procurement of antimicrobials is done by one person who distributes them to farmers who don't have the basic knowledge on antimicrobials and their use. Additionally, the use of antimicrobials as a growth promoter is a challenge in the country.

Farmers in Burkina Faso, like in many other Sahelian countries, practice an extensive and transhumant farming method. For these reasons, animals become difficult to access, leading to self-medication by farmers who use drugs such as tetracyclines—an antimicrobial used to treat respiratory infections for animals—without performing

About USAID MTaPS

The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018-2023) enables low- and middle-income countries to strengthen their pharmaceutical systems, which is pivotal to better health outcomes and higher-performing health systems. The program is implemented by a consortium of global and local partners, led by Management Sciences for Health (MSH), a global health nonprofit.

www.mtapsprogram.org

Contact: Dr. Henri Kaboré, MTaPS Burkina Faso Country Project Director, hkabore@mtapsprogram.org

a proper verification of the quality and frequency of use of these antimicrobials. These practices represent a great danger in combatting AMR.

To fight against this threat, the USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) program is supporting Burkina Faso to promote the rational use of antimicrobials in the farming sector.

Supporting the approval of national guidelines

Although the country has laws on animal health, there isn't a framework regulating the rational use of antimicrobials.

Supporting the Ministry of Animal and Fishing Resources, MTaPS worked to develop guidelines on the rational use of antimicrobials in the farming sector that would be useful for all stakeholders working under the One Health Platform, including health, agriculture, farming, environmental, and research professionals. These guidelines are designed to respond to several objectives, including:

- Regrouping all legislative and regulatory provisions related to antimicrobials at the national and regional level within the West-African Economic and Monetary Union
- Ensuring compliance with general principles of rational antimicrobials use, such as the marketing authorization, the obligation to perform a diagnosis by a health professional, drug categorization, and the enforcement of prescribed rules
- Defining roles and responsibilities of all stakeholders involved in the implementation of the rational use of antibiotics

On December 9, 2020, the stakeholders involved in drafting the national guidelines on rational antimicrobials use met to approve this document—a first in the farming sector and a great pride for the country. Every person—including Dr. Boubacar N'Paton Sie, veterinarian at the General Directorate for Veterinary Services (DGSV) and Dr. Sayouba Ouédraogo, General Secretary for the Group for Private Veterinarian of Burkina Faso—praised the introduction of these guidelines. They both acknowledged MTaPS' efforts for supporting the country in the development, promotion, and popularization of the guidelines.

Helping stakeholders understand and use the guidelines

Although the guidelines have been completed and approved, the Ministry and MTaPS had to help all stakeholders to be able to take ownership of its content.

Plenary session during the finalization of the training tools for the rational use of antimicrobials. Photo credit: Dr. Henri Kaboré

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To do so, training tools were developed to present the guidelines on the rational use of antimicrobials. On May 17–18, 2021, a 12-person workshop was organized to finalize the training tools in Ziniaré (Plateau-Central region). Participants included members of the DGSV, the National Order of Veterinarians of Burkina Faso, and the Group of Private Veterinarians. Thanks to this workshop, four documents, including one training manual and six modules, and two facilitators and participants' guides were developed.

Following the development of these documents, three trainings of trainers took place between June and August to build the capacities of veterinarians and farming technicians. All four documents were distributed during these 3-days events. 42 farming technicians—from all but 3 provinces—and 15 veterinarians from all regions from both the public and private sector participated in the training. The objective of these training sessions was for each province and region to benefit from these new tools so the outcomes of these activities could be sustainable and benefit all Burkinabe involved in the animal sector.

"The problem of antimicrobial resistance is a global preoccupation. […] USAID, by enabling veterinarians to be able to attend this training, played an important role and we can only congratulate them and ask that they continue their efforts […] so all actors can benefit from this knowledge."

— Dr. Charles Mandé, President of the National Order of Veterinarians of Burkina Faso

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ANNEX 2: MTAPS INDICATOR TRACKING TABLE, QUARTER 1, YEAR 4

Annex Table 1: MTaPS Performance Indicator Tracking Table

Code	Performance Indicator	Reporting Frequency	Base-line Value	PY2 Result	PY3 Result	PY4Q1 Result[6]	PY4Q2 Result	PY4Q3 Result	PY4Q4 Result	PY4 Cumulative Result
MT 1.1.1	# of entities that have clarified roles and responsibilities in pharmaceutical systems and made information publicly available with MTaPS support	Annually	0	3	8					
	Bangladesh		0	2	2					
	Indonesia		0	N/A	0					
	Jordan		0	0	0					
	Nepal		0	0	0					
	Rwanda		0	1	4					
	IGAD		0	0	2					
MT 1.1.2	# of MTaPS-supported entities that monitor key elements of the pharmaceutical management	Annually	0	0	29					

[6] MTaPS PY4Q1 data populated in this table without the Burkina Faso Data.

	operations and make the information publicly available						
	DRC		0	0	29		
MT 1.1.3	% of MTaPS-supported decision-making entities that have publicly available guidelines for key elements of pharmaceutical management operations	Annually	0	N/A	100% (2/2)		
	IGAD		0	N/A	100% (2/2)		
MT 1.2.1	# of pharmaceutical sector-related policy, legislation, regulation, or operational documents developed or updated with technical assistance from MTaPS	Annually	0	30	34		
	Asia Bureau		0	0	1		
	Bangladesh		0	2	2		
	Burkina Faso		0	1	0		
	Global MNCH		0	1	0		
	Indonesia		0	N/A	0		
	Jordan		0	0	0		
	Mozambique		0	0	0		

	Nepal		0	0	9			
	Philippines		0	0	3			
	Rwanda		0	26	17			
	Tanzania		0	N/A	2			
MT 1.2.2	# of pharmaceutical regulatory enforcement mechanisms established or strengthened with MTaPS support	Semi-annually	0	0	5			
	Global MNCH		0	N/A	0			
	Mozambique		0	0	2			
	Rwanda		0	0	2			
	Tanzania		0	N/A	1			
MT 1.2.3	% of established pharmaceutical regulatory enforcement mechanisms that are functional	Semi-annually			88% (15/17)			
	Bangladesh		50%	Data not reported	100% (8/8)			
	Mozambique		0%	22% (2/9)	67% (2/3)			
	Rwanda		0%	83%	83% (5/6)			
MT 1.3.1	# of platforms for citizen and consumer engagement in the pharmaceutical sector established or strengthened	Annually	0	0	1			

	with MTaPS support										
	Jordan		0	0	0						
	DRC		0	0	1						
MT 1.3.2	# of civil society organizations (CSOs) or media groups that have disseminated information on pharmaceutical-sector monitoring activities or conducted advocacy for equity in access to medical products with MTaPS support	Annually	0	0	0						
	Jordan		0	0	0						
MT 2.1.2	# of MTaPS-supported health professional training curricula developed or revised to address pharmaceutical management topics	Annually	0	4	2						
	Asia Bureau		0	N/A	1						
	Bangladesh		0	4	0						
	IGAD		0	N/A	1						
2.2.2	# of persons trained in pharmaceutical management with MTaPS support	Quarterly	0	1,116	11,782	4487					
	Asia Bureau		0	0	99	*Female*	8	*Female*		*Female*		*Female*		

						Male	17	*Male*		*Male*		*Male*		
						Unknown	220	*Unknown*		*Unknown*		*Unknown*		
						Total	245	*Total*		*Total*		*Total*		
	Bangladesh		0	961	2856	*Female*	168	*Female*		*Female*		*Female*		
						Male	676	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	844	*Total*		*Total*		*Total*		
	Cross Bureau		0	N/A	N/A	*Female*	0							
						Male	0							
						Unknown	0							
						Total	0							
	DRC		0	0	373	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	123	*Unknown*		*Unknown*		*Unknown*		
						Total	123	*Total*		*Total*		*Total*		
	IGAD		0	0	843	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Indonesia		0	0	0	*Female*	110	*Female*		*Female*		*Female*		
						Male	94	*Male*		*Male*		*Male*		
						Unknown	16	*Unknown*		*Unknown*		*Unknown*		
						Total	220	*Total*		*Total*		*Total*		
	Jordan		0	N/A	N/A	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Mali		0	0	0	*Female*	4	*Female*		*Female*		*Female*		
						Male	4	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	8	*Total*		*Total*		*Total*		
	Mozambique		0	40	21	*Female*	6	*Female*		*Female*		*Female*		
						Male	6	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	12	*Total*		*Total*		*Tota*		
	Philippines		0	0	6926	*Female*	2160	*Female*		*Female*		*Female*		
						Male	833	*Male*		*Male*		*Male*		
						Unknown	15	*Unknown*		*Unknown*		*Unknown*		

						Total	3008	*Total*		*Total*		*Total*		
	Rwanda		0	0	603	*Female*	17	*Female*		*Female*		*Female*		
						Male	42	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	59	*Total*		*Total*		*Total*		
	Tanzania		N/A	N/A	30	*Female*	10	*Female*		*Female*		*Female*		
						Male	17	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	27	*Total*		*Total*		*Total*		
MT 2.2.3	# of in-person or e-learning courses developed with MTaPS assistance	Annually	0	1	11									
	Asia Bureau		0	N/A	3									
	Bangladesh		0	0	0									
	Cross Bureau		0	1	1									
	IGAD		N/A	N/A	0									
	Mozambique		0	0	1									
	Philippines		0	0	4									
	Rwanda		0	0	2									
MT 2.2.4	# of people successfully completing MTaPS-developed e-learning courses	Quarterly	0	65	6,917	2250								
	Asia Bureau		0	0	52	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Bangladesh		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Cross Bureau		0	0	8	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Mozambique		0	65	0	*Female*	0	*Female*		*Female*		*Female*		

						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Philippines		0	0	6857	*Female*	1602	*Female*		*Female*		*Female*		
						Male	648	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	2250	*Total*		*Total*		*Total*		
	Rwanda		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
MT 2.4.3	# of regional harmonization initiatives with participation by MTaPS-supported NMRAs	Annually	0	0	3									
	Asia Bureau		0	N/A	1									
	IGAD		0	N/A	2									
	Mozambique		0	0	0									
MT 2.4.4	# of countries that have conducted an assessment at any level of the regulatory system	Annually	0	0	1									
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												
	Bangladesh		90%	92%	100% (2006/2006)									

	Philippines		0%	0%	0%								
	Rwanda		0%	100%	100% (10/10)								
MT 3.1.2	# and % of MTaPS-supported health facilities using interoperable PMIS tools	Semi-annually			85% (6434/7565)								
	Bangladesh		61%	87%	77% (4734/6173)								
	Mozambique		0%	68%	85% (1412/1652)								
MT 3.1.3	# of countries that have a functional early warning system linking clinical and stock data	Annually	0	0	2								
MT 3.2.1	# and % of MTaPS-supported health facilities that complete and submit an LMIS report on time for the most recent reporting period	Quarterly	54.11% (158/292)	92% (4293/4680)	76% (4588/6003)	75% (4723/6270)							
	Bangladesh		74.3% (84/115)	92% (4293/4680)	77% (4488/5826)	*DGFP (Sub-District Level)*	100% (490/490)	*DGFP (Sub-District Level)*		*DGFP (Sub-District Level)*		*DGFP (Sub-District Level)*	
						DGFP (Central/ Regional Level)	100% (22/22)	*DGFP (Central/ Regional Level)*		*DGFP (Central/ Regional Level)*		*DGFP (Central/ Regional Level)*	
						District Hospital	64% (23/36)	*District Hospital*		*District Hospital*		*District Hospital*	
						Civil Surgeon Office	51% (19/37)	*Civil Surgeon Office*		*Civil Surgeon Office*		*Civil Surgeon Office*	

						Upazila Health Complex	64% (174/272)	*Upazila Health Complex*		*Upazila Health Complex*		*Upazila Health Complex*		
						Union Sub Center	74% (273/371)	*Union Sub Center*		*Union Sub Center*		*Union Sub Center*		
						Community Clinic	75% (3628/4865)	*Community Clinic*		*Community Clinic*		*Community Clinic*		
						Total	76 (4629/6093)	*Total*		*Total*		*Total*		
	DRC		42% (74/177)	Data not reported	56% (100/177)	*Hospitals*	100% (10/10)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health centers	50.30% (84/167)	*Health centers*		*Health centers*		*Health centers*		
						Total	53.11% (94/177)	*Total*		*Total*		*Total*		
MT 3.3.2	# of PSS technical documents authored by MTaPS	Semi-annually	0	1	41									
	Cross Bureau		0	1	13									
	CSL		0	0	1									
	Rwanda		0	0	27									
MT 3.3.3	# of activities to engage with stakeholders to advance the PSS global learning agenda	Quarterly	0	11	12	11								
	Asia Bureau		0	N/A	N/A	0								
	Cross Bureau		0	11	12	8								
	CSL		0	0	0	0								
	Indonesia		0	0	0	3								
MT 4.2.3	# of strategic plans developed or updated to address pharmaceutical	Semi-annually	0	2	0									

	costs and financing with MTaPS support									
	Bangladesh		0	2	0					
MT 5.1.1	% of service delivery points with stock out of FP, TB and HIV-AIDS tracer commodities	Quarterly				38.31% (5262/13734)				
	Philippines									
	First line TB meds (4 FDC)		40.5%	30% (472/1552)	19%	22.26% (348/1563)				
	TB Pediatric Med (4FDC)		90.6%	97% (856/883)	55%	59.73% (740/1239)				
	TB Preventive Treatment (for children)		63.8%	65% (645/987)	87%	89.97% (987/1097)				
	TB Second Line Drug (Levofloxacin 500mg)		N/A	53% (105/199)	0%	-				
	TB Second Line Drug (Moxifloxacin 400mg)		N/A	5% (9/199)	0%	-				
	TB Second Line Drug (Linezolid 600mg)		N/A	12% (24/199)	0%	-				
	TB Second Line Drug (Bedaquiline)		N/A	13% (25/199)	0%	-				
	GeneXpert Cartridges		N/A	3% (13/395)	18%	-				
	FP Injectable		30.2%	12% (218/1775)	34%	31.12% (526/1690)				
	FP Implant		52.7%	55% (717/1316)	39%	40.8% (603/1478)				
	FP Oral COC		25.6%	8% (143/1798)	16%	36.6% (624/1705)				
	FP Oral POP		69.3%	31% (507/1630)	20%	21.49% (369/1717)				

	IUD		36.7%	29% (454/1566)	42%	43.97% (674/1533)				
	Male condom		38.9%	21% (358/1743)	22%	22.84% (391/1712)				
MT 5.1.2	% of tracer products stocked according to plan	Semi-annually								
	Bangladesh			Data not reported		*Stocked according to plan*		*Stocked according to plan*		
						Overstocked		*Overstocked*		
						Understocked		*Understocked*		
						Stocked out		*Stocked out*		
	DRC			Data not reported		*Stocked according to plan*		*Stocked according to plan*		
						Overstocked		*Overstocked*		
						Understocked		*Understocked*		
						Stocked out		*Stocked out*		
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)					
	Bangladesh		0%	Data not reported	100% (3/3)	*LMIS*		*LMIS*		
						Inventory management		*Inventory management*		
MT 5.2.1	% of MTaPS-supported health facilities which have developed, adopted or implemented pharmaceutical services standards	Semi-annually	0%	0%	0% (0/100)					
	Rwanda		0%	0%	0% (0/100)					
MT 5.3.1	% of MTaPS-supported health facilities that	Quarterly	31% (31/100)	3% (3/110)		55% (65/117)				

	have implemented medicines safety activities				44% (46/105)									
	Bangladesh		31% (31/100)	3% (3/100)	56% (28/50)	*Pharmaceuticals*	67% (44/65)	*Pharmaceuticals*		*Pharmaceuticals*		*Pharmaceuticals*		
						Total	*67% (44/65)*	*Total*		*Total*		*Total*		
	IGAD		0%	Data not reported	24% (10/41)	*Hospitals*	6.06% (2/33)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Center	0% (0/6)	*Health Center*		*Health Center*		*Health Center*		
						Total	4.88% (2/39)	*Total*		*Total*		*Total*		
	Jordan		0% (0/0)	0% (0/0)	0% (0/6)	*Hospitals*	N/A	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Center	N/A	*Health Center*		*Health Center*		*Health Center*		
						Total	N/A	*Total*		*Total*		*Total*		
	Rwanda		0% (0/10)	0% (0/10)	50% (5/10	*Hospital*	100% (1/1)	*Hospital*		*Hospital*		*Hospital*		
						Health Center	100% (9/9)	*Health Center*		*Health Center*		*Health Center*		
						Total	100% (10/10)	*Total*		*Total*		*Total*		
	Mozambique		0%	N/A	100%	*Hospital*	100% (2/2)	*Hospital*		*Hospital*		*Hospital*		
						Health Center	100% (7/7)	*Health Center*		*Health Center*		*Health Center*		
						Total	100% (9/9)	*Total*		*Total*		*Total*		
MT 5.3.2	% of adverse drug events (ADEs) reported to the NMRA and reviewed by the NMRA	Semi-annually												
	IGAD		0% (0/0)	N/A	100% (1104/1104)									
	Bangladesh		68%	22%	77% (449/586)									
	Mozambique		60%	N/A	56% (1237/2213)									

	Rwanda		91%	N/A	55% (102/186)					
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)					
	Mozambique		0%	100%	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				
	Jordan		0	N/A	N/A	3				
ML 1	# of Marketing Authorization Commission meetings supported by MTaPS	*Quarterly*	0	0	0	0				
	Mali		0	0	0	0				
ML 2	# of quarterly meetings to orient key stakeholders on the use of directory of	*Quarterly*	0	0	0	0				

	registered medical products										
	Mali		0	0	0	0					
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					
	Mali		0	0	0	0					
	Rwanda		0	0	0	1					
	Senegal		0	0	0	0					
	Uganda		0	0	0	2					
EVD 2	# of entities implementing EVD guidelines with MTaPS support	*Quarterly*	0	0	0	66					
	Cote D'Ivoire		0	0	0	*ETU*	0	*ETU*		*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*		*Non-ETU*		*Non-ETU*		
						POE	0	*POE*		*POE*		*POE*		
						Total	0	*Total*		*Total*		*Total*		
	Mali		0	0	0	*ETU*	0	*ETU*		*ETU*		*ETU*		
						Non-ETU	7	*Non-ETU*		*Non-ETU*		*Non-ETU*		
						POE	0	*POE*		*POE*		*POE*		
						Total	7	*Total*		*Total*		*Total*		
	Rwanda		0	0	0	*ETU*	0	*ETU*		*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*		*Non-ETU*		*Non-ETU*		
						POE	0	*POE*		*POE*		*POE*		
						Total	0	*Total*		*Total*		*Total*		
	Senegal		0	0	0	*ETU*	0	*ETU*		*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*		*Non-ETU*		*Non-ETU*		
						POE	0	*POE*		*POE*		*POE*		

						Total	0	*Total*		*Total*		*Total*		
						ETU	9	*ETU*		*ETU*		*ETU*		
			0	0	0	*Non-ETU*	39	*Non-ETU*		*Non-ETU*		*Non-ETU*		
						POE	11	*POE*		*POE*		*POE*		
	Uganda					*Total*	59	*Total*		*Total*		*Total*		
EVD 3	# of persons who received EVD training with MTaPS support	*Quarterly*	0	0	0	924								
						Female	0	*Female*		*Female*		*Female*		
			0	0	0	*Male*	0	*Male*		*Male*		*Male*		
	Cote D'Ivoire					*Unknown*	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
						Female	0	*Female*		*Female*		*Female*		
			0	0	0	*Male*	0	*Male*		*Male*		*Male*		
	Mali					*Unknown*	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
						Female	17	*Female*		*Female*		*Female*		
			0	0	0	*Male*	15	*Male*		*Male*		*Male*		
	Rwanda					*Unknown*	0	*Unknown*		*Unknown*		*Unknown*		
						Total	32	*Total*		*Total*		*Total*		
						Female	0	*Female*		*Female*		*Female*		
			0	0	0	*Male*	0	*Male*		*Male*		*Male*		
	Senegal					*Unknown*	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
						Female	464	*Female*		*Female*		*Female*		
			0	0	0	*Male*	428	*Male*		*Male*		*Male*		
	Uganda					*Unknown*	0	*Unknown*		*Unknown*		*Unknown*		
						Total	892	*Total*		*Total*		*Total*		
EVD 4	# of MTaPS supported entities in compliance with EVD IPC guidelines	*Quarterly*	0	0	0	7								
						ETU	0	*ETU*		*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*		*Non-ETU*		*Non-ETU*		
			0	0	0	*POE*	0	*POE*		*POE*		*POE*		
	Cote D'Ivoire					*Total*	0	*Total*		*Total*		*Total*		
						ETU	0	*ETU*		*ETU*		*ETU*		
			0	0	0	*Non-ETU*	7	*Non-ETU*		*Non-ETU*		*Non-ETU*		
	Mali					*POE*	0	*POE*		*POE*		*POE*		

						Total	7	*Total*		*Total*		*Total*		
	Rwanda		0	0	0	*ETU*	0	*ETU*		*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*		*Non-ETU*		*Non-ETU*		
						POE	0	*POE*		*POE*		*POE*		
						Total	0	*Total*		*Total*		*Total*		
	Senegal		0	0	0	*ETU*	0	*ETU*		*ETU*		*ETU*		
						Non-ETU	0	*Non-ETU*		*Non-ETU*		*Non-ETU*		
						POE	0	*POE*		*POE*		*POE*		
						Total	0	*Total*		*Total*		*Total*		
PP 2.3.1	% of sentinel facilities using PViMS	*Quarterly*	0	0	20%	68.66% (138/201)								
	Philippines		0	0	20%	68.66% (138/201)								
JO 1	# of National Vaccine Procurement Modernization Committee (NVPMC) meetings with MTaPS support.	*Quarterly*	0	N/A	N/A	1								
	Jordan		0	N/A	N/A	1								
JO 4	Number of awareness-raising activities on AMR and rational use of antibiotics conducted	*Quarterly*	0	N/A	N/A	4								
	Jordan		0	N/A	N/A									
JO 5	Number of youth reached through AMR activities covering health education messages related	*Quarterly*	0	N/A	N/A	0								

	to AMR with MTaPS support													
	Jordan		0	N/A	N/A	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
JO 6	Number of awareness-raising activities to promote vaccine safety messages and reporting of ADRs conducted at the community level	*Quarterly*	0	N/A	N/A	0								
	Jordan		0	N/A	N/A	0								
MSC 1	# of AMR-related in-country meetings or activities conducted with multisectoral participation	Quarterly	0	122	170	55								
	Bangladesh		0	3	2	3								
	Senegal		0	2	5	2								
	Cameroon		0	5	7	1								
	Côte d'Ivoire		0	35	67	14								
	DRC		0	6	20	3								
	Jordan		0	0	2	1								
	Kenya		0	38	26	16								
	Mali		0	16	6	0								
	Mozambique		0	0	13	4								
	Nigeria		0	0	6	3								
	Senegal		0	4	7	2								
	Tanzania		0	4	2	2								
	Uganda		0	9	7	4								
MSC 2	# and % of female participants in	Semi-annually												

	meetings or other events organized by the multisectoral body on AMR							
	Bangladesh		29% (24/84)	29% (24/84)	29% (12/41)			
	Burkina Faso		18% (3/17)	22% (6/27)	33% (10/10)			
	Cameroon		50% (2/4)	39% (39/101)	52% (32/62)			
	Côte d'Ivoire		38% (21/55)	38% (21/55)	43% (70/163)			
	DRC		34%	36% (45/124)	32% (30/93)			
	Jordan		45% (5/11)	Data not reported	45% (5/11)			
	Kenya		66%	43% (496/1147)	51% (105/207)			
	Mali		15%	16% (20/124)	20% (22/109)			
	Mozambique		48% (11/23)	Data not reported	40% (4/10)			
	Nigeria		Data not reported	Data not reported	41% (17/41)			
	Senegal		58% (54/93)	58% (54/93)	34% (11/32)			
	Tanzania		14% (3/21)	14% (3/21)	0% (0/0)			
	Uganda		Data not reported	Data not reported	61% (28/46)			
MSC 3	# policies, legislation, regulation, operational documents	Annually	0	17	13			

	related to national action plan on AMR implementation developed or updated with MTaPS support						
	Bangladesh		0	0	2		
	Burkina Faso		0	0	1		
	Cameroon		0	1	1		
	Côte d'Ivoire		0	0	0		
	DRC		0	3	0		
	Kenya		0	3	3		
	Mali		0	8	0		
	Mozambique		0	N/A	2		
	Nigeria		0	N/A	0		
	Senegal		0	1	2		
	Tanzania		0	1	2		
	Uganda		0	0	0		
MSC 4	# of multisectoral bodies that have developed a national monitoring framework with MTaPS support	Annually	0	1	1		
	Bangladesh		0	0	0		
	Burkina Faso		0	0	0		
	Cameroon		0	0	0		
	Côte d'Ivoire		0	0	0		

	DRC		0	0	0									
	Kenya		0	1	1									
	Mali		0	0	0									
	Mozambique		0	0	0									
	Nigeria		0	N/A	0									
	Senegal		0	0	0									
	Tanzania		0	0	0									
	Uganda		0	0	0									
MSC 5	# of persons trained in AMR-related topics in leadership/management related to multisectoral engagement in AMR with MTaPS support	Quarterly	0	164	655	160								
	Bangladesh		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Burkina Faso		0	0	80	*Female*	Data not reported	*Female*		*Female*		*Female*		
						Male		*Male*		*Male*		*Male*		
						Unknown		*Unknown*		*Unknown*		*Unknown*		
						Total		*Total*		*Total*		*Total*		
	Cameroon		0	0	20	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Côte d'Ivoire		0	134	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	DRC		0	0	463	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		

						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Kenya		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Mali		0	30	2	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Mozambique		0	0	45	*Female*	5	*Female*		*Female*		*Female*		
						Male	2	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	7	*Total*		*Total*		*Total*		
	Nigeria		0	0	0	*Female*	23	*Female*		*Female*		*Female*		
						Male	24	*Male*		*Male*		*Male*		
						Unknown	47	*Unknown*		*Unknown*		*Unknown*		
						Total	94	*Total*		*Total*		*Total*		
	Senegal		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Tanzania		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Uganda		0	0	45	*Female*	27	*Female*		*Female*		*Female*		
						Male	32	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	59	*Total*		*Total*		*Total*		
MSC 6	# of e-learning courses or m-mentoring platforms related to AMR developed or adapted with MTaPS support	Annually	0	2	25									
	Bangladesh		0	0	0									
	Burkina Faso		0	0	1									
	Cameroon		0	0	20									

	Côte d'Ivoire		0	1	2		
	DRC		0	0	0		
	Kenya		0	0	0		
	Mali		0	1	2		
	Mozambique		0	N/A	0		
	Nigeria		0	N/A	0		
	Senegal		0	0	0		
	Tanzania		0	0	0		
	Uganda		0	0	0		
MSC 7	# of data collection and analysis mechanisms for tracking AMR-related indicators developed or strengthened with MTaPS support	Annually	0	0	2		
	Bangladesh		0	0	0		
	Burkina Faso		0	0	0		
	Cameroon		0	0	0		
	Côte d'Ivoire		0	0	0		
	DRC		0	0	1		
	Kenya		0	0	0		
	Mali		0	0	0		
	Mozambique		0	N/A	1		
	Nigeria		0	N/A	0		
	Senegal		0	0	0		
	Tanzania		0	0	0		
	Uganda		0	0	0		
IP 1	# of updated policies, legislation, regulations, or operational documents for improving infection prevention and control (IPC)	Annually	0	9	3		
	Bangladesh		0	0	0		
	Burkina Faso		0	0	0		
	Cameroon		0	0	1		
	Côte d'Ivoire		0	7	0		
	DRC		0	0	0		

	Kenya		0	0	0									
	Mali		0	1	0									
	Mozambique		0	N/A	1									
	Nigeria		0	N/A	1									
	Senegal		0	0	0									
	Tanzania		0	1	0									
	Uganda		0	0	0									
IP 2	# of persons trained in IPC with MTaPS support	Quarterly	0	1,199	7,477	988								
	Bangladesh		0	0	95	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Burkina Faso		0	0	0	*Female*	Data not reported	*Female*		*Female*		*Female*		
						Male		*Male*		*Male*		*Male*		
						Unknown		*Unknown*		*Unknown*		*Unknown*		
						Total		*Total*		*Total*		*Total*		
	Cameroon		0	86	88	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Côte d'Ivoire		0	0	131	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	DRC		0	0	94	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Kenya		0	642	5,230	*Female*	16	*Female*		*Female*		*Female*		
						Male	14	*Male*		*Male*		*Male*		
						Unknown	80	*Unknown*		*Unknown*		*Unknown*		
						Total	110	*Total*		*Total*		*Total*		
	Mali		0	0	21	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Mozambique		0	0	0	*Female*	0	*Female*		*Female*		*Female*		

						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Nigeria		0	0	15	*Female*	210	*Female*		*Female*		*Female*		
						Male	124	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	334	*Total*		*Total*		*Total*		
	Senegal		0	0	22	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	62	*Unknown*		*Unknown*		*Unknown*		
						Total	62	*Total*		*Total*		*Total*		
	Tanzania		0	471	17	*Female*	22	*Female*		*Female*		*Female*		
						Male	18	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	40	*Total*		*Total*		*Total*		
	Uganda		0	0	1,247	*Female*	257	*Female*		*Female*		*Female*		
						Male	185	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	442	*Total*		*Total*		*Total*		
IP 3	# and % of MTaPS-supported facilities that are using standardized tool(s) for monitoring IPC and informing programmatic improvement	Quarterly	50% (8/16)	100% (9/9)	94% (107/114)	91% (111/122)								
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	*Hospitals*	50% (2/4)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	50% (2/4)	*Total*		*Total*		*Total*		
	Burkina Faso		0% (0/0)	0% (0/0)	0% (0/0)	*Hospitals*	Data Not Reported	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers		*Health Centers*		*Health Centers*		*Health Centers*		
						Others		*Others*		*Others*		*Others*		
						Total		*Total*		*Total*		*Total*		

	Cameroon		0% (0/0)	0% (0/0)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (12/12)	*Total*		*Total*		*Total*		
	Côte d'Ivoire		0% (0/0)	0% (0/0)	100% (12/12)	*Hospital*	73% (16/22)	*Hospital*		*Hospital*		*Hospital*		
						Animal health Centers	0	*Animal health Centers*		*Animal health Centers*		*Animal health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	73% (16/22)	*Total*		*Total*		*Total*		
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Jordan		0% (0/0)	0% (0/0)	0% (0/4)	*Hospitals*	N/A	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers		*Health Centers*		*Health Centers*		*Health Centers*		
						Others		*Others*		*Others*		*Others*		
						Total		*Total*		*Total*		*Total*		
	Kenya		0% (0/0)	0% (0/0)	100% (20/20)	*Hospitals*	100% (19/19)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	100% (1/1)	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (20/20)	*Total*		*Total*		*Total*		
	Mali		0% (0/0)	0% (0/0)	100% (16/16)	*Hospital*	100% (9/9)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	100% (7/7)	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (16/16)	*Total*		*Total*		*Total*		
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*		*Hospital*		*Hospital*		

						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Nigeria		0% (0/0)	Data not reported	0% (0/0)	*Hospitals*	0% (0/3)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	0% (0/3)	*Total*		*Total*		*Total*		
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	*Hospitals*	100% (8/8)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (8/8)	*Total*		*Total*		*Total*		
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (10/10)	*Total*		*Total*		*Total*		
	Uganda		0% (0/0)	0% (0/0)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (13/13)	*Total*		*Total*		*Total*		
IP 4	# of countries with improved performance in core IPC components at national level from baseline to follow up	Annually	0% (0/12)	25% (3/12)	75% (8/12)									
IP 5	# and % of MTaPS-supported facilities implementing continuous	Quarterly	40% (23/57)	83% (39/47)	99% (106/107)	87% (106/122)								

	quality improvement (CQI) to improve IPC													
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	*Hospitals*	50% (2/4)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	50% (2/4)	*Total*		*Total*		*Total*		
	Burkina Faso		0% (0/0)	0% (0/0)	0% (0/0)	*Hospitals*	Data Not Reported	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers		*Health Centers*		*Health Centers*		*Health Centers*		
						Others		*Others*		*Others*		*Others*		
						Total		*Total*		*Total*		*Total*		
	Cameroon		0% (0/6)	100% (6/6)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (12/12)	*Total*		*Total*		*Total*		
	Côte d'Ivoire		50% (2/4)	100% (4/4)	100% (12/12)	*Hospitals*	55% (12/22)	*Hospitals*		*Hospitals*		*Hospitals*		
						Animal Health Centers	0	*Animal Health Centers*		*Animal Health Centers*		*Animal Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	55% (12/22)	*Total*		*Total*		*Total*		
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Kenya		100% (16/16	100% (16/16)	100% (20/20)	*Hospitals*	100% (19/19)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	100% (1/1)	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		

						Total	100% (20/20)	*Total*		*Total*		*Total*		
	Mali		0% (0/5)	0% (0/5)	94% (15/16)	*Hospital*	100% (9/9)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	85.71% (6/7)	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	93.75% (15/16)	*Total*		*Total*		*Total*		
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Nigeria		0% (0/3)	Data not reported	0% (0/0)	*Hospitals*	0% (0/3)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	0% (0/3)	*Total*		*Total*		*Total*		
	Senegal		0% (0/3)	0% (0/3)	100% (8/8)	*Hospitals*	100% (8/8)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (8/8)	*Total*		*Total*		*Total*		
	Tanzania		33% (2/6)	100% (6/6)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (10/10)	*Total*		*Total*		*Total*		
	Uganda		0% (0/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (13/13)	*Total*		*Total*		*Total*		

IP 6	# and % of MTaPS-supported facilities with functional IPC committees	Quarterly	35% (18/51)	87% (41/47)	94% (104/110)	90% (110/122)								
	Bangladesh		0% (0/0)	0% (0/0)	100% (2/2)	*Hospitals*	50% (2/4)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	50% (2/4)	*Total*		*Total*		*Total*		
	Burkina Faso		0% (0/0)	0% (0/0)	0% (0/0)	*Hospitals*	Data Note Reported	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers		*Health Centers*		*Health Centers*		*Health Centers*		
						Others		*Others*		*Others*		*Others*		
						Total		*Total*		*Total*		*Total*		
	Cameroon		0% (0/0)	83% (5/6)	100% (12/12)	*Hospitals*	100% (12/12)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (12/12)	*Total*		*Total*		*Total*		
	Côte d'Ivoire		100% (4/4)	100% (4/4)	100% (12/12)	*Hospitals*	73% (16/22)	*Hospitals*		*Hospitals*		*Hospitals*		
						Animal Health Centers	0	*Animal Health Centers*		*Animal Health Centers*		*Animal Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	73% (16/22)	*Total*		*Total*		*Total*		
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Kenya		0% (0/16)	100% (16/16)	92% (18/20)	*Hospitals*	100% (19/19)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	100% (1/1)	*Health Centers*		*Health Centers*		*Health Centers*		

						Others	0	*Others*		*Others*		*Others*		
						Total	100% (20/20)	*Total*		*Total*		*Total*		
	Mali		0% (0/5)	0% (0/5)	94% (15/16)	*Hospital*	88.89% (8/9)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	85.71% (6/7)	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	75% (14/16)	*Total*		*Total*		*Total*		
	Mozambique		43% (3/7)	Data not reported	100% (7/7)	*Hospital*	100% (7/7)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Nigeria		0% (0/3)	Data not reported	0% (0/3)	*Hospitals*	33.33% (1/3)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	33.33% (1/3)	*Total*		*Total*		*Total*		
	Senegal		100% (3/3)	100% (3/3)	100% (8/8)	*Hospitals*	100% (8/8)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (8/8)	*Total*		*Total*		*Total*		
	Tanzania		17% (1/6)	100% (6/6)	100% (10/10)	*Hospitals*	100% (10/10)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (10/10)	*Total*		*Total*		*Total*		
	Uganda		100% (7/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		

						Total	100% (13/13)	*Total*		*Total*		*Total*		
IP 7	# and % of MTaPS-supported facilities with improved hand hygiene compliance	Annually												
	Bangladesh		0	0%	100% (2/2)			*Hospitals*						
								Total						
	Burkina Faso		0		0% (0/0)			*Total*						
	Cameroon		0	0%	100%			*Hospitals*						
								Total						
	Côte d'Ivoire		0	100%	90% (9/10)			*Hospitals*						
								Total						
	DRC		0		57% (4/7)			*Hospitals*						
								Total						
	Kenya		0		100% (20/20)			*Hospitals*						
								Health Centers						
								Total						
	Mali		0	0%	94% (15/16)			*Hospital*						
								Health Centers						
								Total						
	Mozambique		0		0% (0/7)			*Hospitals*						
								Total						
	Nigeria		0	N/A	0% 0(0/3)			*Hospitals*						
								Total						
	Senegal		0		100% (8/8)			*Hospitals*						
								Total						
	Tanzania		0		100% (10/10)			*Hospitals*						
								Total						
	Uganda		0		100% (7/7)			*Hospitals*						
								Total						
IP 8	# and % of MTaPS supported facilities with improved performance in core IPC components	Annually												
	Bangladesh		0		100% (2/2)			*Hospitals*						
								Total						

	Burkina Faso		0		0% (0/0)	*Total*		
	Cameroon		0		100% (12/12)	*Hospitals*		
						Total		
	Côte d'Ivoire		0		80% (8/10)	*Hospitals*		
						Total		
	DRC		0		0% (0/0)	*Hospitals*		
						Total		
	Kenya		0		100% (20/20)	*Hospitals*		
						Health Centers		
						Total		
	Mali		0		94% (15/16)	*Hospital*		
						Health Centers		
						Total		
	Mozambique		0		100% (7/7)	*Hospitals*		
						Total		
	Nigeria		0		0% 0(0/3)	*Hospitals*		
						Total		
	Senegal		0		100% (8/8)	*Hospitals*		
						Total		
	Tanzania		0		60% (6/10)	*Hospitals*		
						Total		
	Uganda		0		0% (0/0)	*Hospitals*		
						Total		
AS1	# of policies, legislation, regulations, or operational documents related to antimicrobial stewardship (AMS) developed or updated with MTaPS support	Annually	0	5	12			
	Bangladesh		0	0	0			
	Burkina Faso		0	0	2			
	Cameroon		0	0	0			
	Côte d'Ivoire		0	1	0			
	DRC		0	1	3			
	Kenya		0	1	3			

	Mali		0	1	0								
	Mozambique		0	N/A	1								
	Nigeria		0	N/A	0								
	Senegal		0	0	1								
	Tanzania		0	1	2								
	Uganda		0	0	0								
AS 2	# and % of MTaPS supported facilities' MTC/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework	Quarterly	10% (4/39)	81% (25/31)	60% (74/123	72% (90/125)							
	Bangladesh		0% (0/0)	0% (0/0)	0% (0/2)	*Hospitals*	25% (1/4)	*Hospitals*		*Hospitals*		*Hospitals*	
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*	
						Others	0	*Others*		*Others*		*Others*	
						Total	25% (1/4)	*Total*		*Total*		*Total*	
	Burkina Faso		0% (0/0)	0% (0/0)	25% (3/12)	*Hospitals*	Data Not Reported	*Hospitals*		*Hospitals*		*Hospitals*	
						Health Centers		*Health Centers*		*Health Centers*		*Health Centers*	
						Others		*Others*		*Others*		*Others*	
						Total		*Total*		*Total*		*Total*	
	Cameroon		0% (0/0)	0% (0/0)	92% (11/12)	*Hospitals*	100% (12/12)	*Hospitals*		*Hospitals*		*Hospitals*	
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*	
						Others	0	*Others*		*Others*		*Others*	
						Total	100% (12/12)	*Total*		*Total*		*Total*	
	Côte d'Ivoire		0% (0/0)	0% (0/0)	75% (9/12)	*Hospitals*	40% (9/22)	*Hospitals*		*Hospitals*		*Hospitals*	
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*	

						Others	0	*Others*		*Others*		*Others*		
						Total	40% (9/22)	*Total*		*Total*		*Total*		
	DRC		0% (0/0)	0% (0/0)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Kenya		6% (1/16)	100% (18/18)	83% (20/24)	*Hospitals*	100% (20/20)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	100% (1/1)	*Health Centers*		*Health Centers*		*Health Centers*		
						Pharmacy	0% (0/2)	*Pharmacy*		*Pharmacy*		*Pharmacy*		
						Total	100% (21/23)	*Total*		*Total*		*Total*		
	Mali		0% (0/0)	0% (0/0)	56% (9/16)	*Hospital*	11.11% (1/9)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	0% (0/7)	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	6% (1/16)	*Total*		*Total*		*Total*		
	Mozambique		0% (0/7)	Data not reported	0% (0/7)	*Hospitals*	71.43% (5/7)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	71.43% (5/7)	*Total*		*Total*		*Total*		
	Nigeria		0% (0/3)	Data not reported	0% (0/0)	*Hospitals*	100% (3/3)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (3/3)	*Total*		*Total*		*Total*		
	Senegal		0% (0/0)	0% (0/0)	0% (0/8)	*Hospitals*	100% (8/8)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		

						Total	100% (8/8)	*Total*		*Total*		*Total*		
	Tanzania		0% (0/6)	0% (0/6)	20% (2/10)	*Hospitals*	100% (10/10)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (10/10)	*Total*		*Total*		*Total*		
	Uganda		43% (3/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (13/13)	*Total*		*Total*		*Total*		
AS 3	# of persons trained in AMS topics with MTaPS support	Quarterly	0	436	4721	582								
	Bangladesh		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Burkina Faso		0	0	97	*Female*	Data Note Reported	*Female*		*Female*		*Female*		
						Male		*Male*		*Male*		*Male*		
						Unknown		*Unknown*		*Unknown*		*Unknown*		
						Total		*Total*		*Total*		*Total*		
	Cameroon		0	0	222	*Female*	8	*Female*		*Female*		*Female*		
						Male	9	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	17	*Total*		*Total*		*Total*		
	Côte d'Ivoire		0	0	237	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	DRC		0	0	274	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Jordan		0	0	0	*Female*	N/A	*Female*		*Female*		*Female*		

						Male		*Male*		*Male*		*Male*		
						Unknown		*Unknown*		*Unknown*		*Unknown*		
						Total		*Total*		*Total*		*Total*		
	Kenya		0	165	1,232	*Female*	103	*Female*		*Female*		*Female*		
						Male	58	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	161	*Total*		*Total*		*Total*		
	Mali		0	0	136	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Mozambique		0	0	0	*Female*	3	*Female*		*Female*		*Female*		
						Male	4	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	7	*Total*		*Total*		*Total*		
	Nigeria		0	0	18	*Female*	10	*Female*		*Female*		*Female*		
						Male	7	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	17	*Total*		*Total*		*Total*		
	Senegal		0	0	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Tanzania		0	201	0	*Female*	0	*Female*		*Female*		*Female*		
						Male	0	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	0	*Total*		*Total*		*Total*		
	Uganda		0	70	2,513	*Female*	204	*Female*		*Female*		*Female*		
						Male	176	*Male*		*Male*		*Male*		
						Unknown	0	*Unknown*		*Unknown*		*Unknown*		
						Total	380	*Total*		*Total*		*Total*		
AS 4	# and % of MTaPS-supported facilities implementing continuous quality improvement (CQI) to improve AMS	Quarterly	49% (24/49)	75% (41/55)	57% (71/124)	61% (74/122)								
	Bangladesh			0% (0/0)		*Hospitals*	0% (0/4)	*Hospitals*		*Hospitals*		*Hospitals*		

			0% (0/0)		0% (0/2)	*Health Centers*	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	0% (0/4)	*Total*		*Total*		*Total*		
	Burkina Faso		0% (0/0)	100% (5/5)	25% (3/12)	*Hospitals*	Data Note Reported	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers		*Health Centers*		*Health Centers*		*Health Centers*		
						Others		*Others*		*Others*		*Others*		
						Total		*Total*		*Total*		*Total*		
	Cameroon		0% (0/0)	0% (0/6)	92% (11/12)	*Hospitals*	100% (12/12)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (12/12)	*Total*		*Total*		*Total*		
	Côte d'Ivoire		0% (0/0)	100% (2/2)	90% (9/10)	*Hospitals*	40% (9/22)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	40% (9/22)	*Total*		*Total*		*Total*		
	DRC		0% (0/0)	100% (3/3)	100% (7/7)	*Hospitals*	100% (7/7)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (7/7)	*Total*		*Total*		*Total*		
	Kenya		100% (18/18)	100% (18/18)	92% (22/24)	*Hospitals*	100% (20/20)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	100% (1/1)	*Health Centers*		*Health Centers*		*Health Centers*		
						Pharmacy	0% (0/2)	*Pharmacy*		*Pharmacy*		*Pharmacy*		
						Total	91% (21/23)	*Total*		*Total*		*Total*		
	Mali		0% (0/5)	0% (0/5)	13% (2/16)	*Hospital*	11.11% (1/9)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	0% (0/7)	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		

						Total	6.25% (1/16)	*Total*		*Total*		*Total*		
	Mozambique		0% (0/7)	Data not reported	57% (4/7)	*Hospital*	72% (5/7)	*Hospital*		*Hospital*		*Hospital*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	72% (5/7)	*Total*		*Total*		*Total*		
	Nigeria		0% (0/3)	Data not reported	0% (0/3)	*Hospitals*	0% (0/3)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	0%	*Total*		*Total*		*Total*		
	Senegal		0% (0/3)	0% (0/3)	0% (0/8)	*Hospitals*	0% (0/8)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	0% (0/8)	*Total*		*Total*		*Total*		
	Tanzania		0% (0/6)	100% (6/6)	20% (2/10)	*Hospitals*	60% (6/10)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	60% (6/10)	*Total*		*Total*		*Total*		
	Uganda		86% (6/7)	100% (7/7)	100% (13/13)	*Hospitals*	100% (13/13)	*Hospitals*		*Hospitals*		*Hospitals*		
						Health Centers	0	*Health Centers*		*Health Centers*		*Health Centers*		
						Others	0	*Others*		*Others*		*Others*		
						Total	100% (13/13)	*Total*		*Total*		*Total*		
AS 5	# / % of MTaPS-supported facilities that have documented evidence of improvement in antimicrobial medicines prescribing or use	Annually												
	Bangladesh		0%		0% (0/2)				*Hospitals*					
									Total					

	Burkina Faso		0%		0% (0/12)	*Hospitals* *Total*		
	Cameroon		0%		0% (0/11)	*Hospitals* *Total*		
	Côte d'Ivoire		0%		0% (0/10)	*Hospitals* *Total*		
	DRC		0%		0% (0/7)	*Hospitals* *Total*		
	Kenya		0%		92% (22/24)	*Hospitals* *Health Centers* *Total*		
	Mali		0%		13% (2/16)	*Hospital* *Health Centers* *Total*		
	Mozambique		0%		57% (4/7)	*Hospitals* *Total*		
	Nigeria		0%		0% (0/3)	*Hospitals* *Total*		
	Senegal		0%		10	*Hospitals* *Total*		
	Tanzania		0%		60% (6/10)	*Hospitals* *Total*		
	Uganda		0%		0% (0/7)	*Hospitals* *Total*		
DRC 1	# of quality assured MNCH, RH/FP, and TB medicines products registered with MTaPS support	Semi-annually	0	0	29			
DRC 4	% of facilities implementing appropriate storage of oxytocin	Quarterly				69.44% (50/72)		
	DRC					69.44% (50/72)		
DRC 5	# of DPS and/or IPS using the updated directory of registered medicines	Semi-annually	0	0	7			
DRC 8	# of health zones involved in	Semi-annually	0	0	19			

	provincial quantification exercises with MTaPS support							
DRC 10	# of Contraceptive kit (reduced FP package) distributed to community care sites (CSS) in MTaPS supported HZs	Semi-annually	0	0	0			
DRC 11	% of CSS reporting contraceptive data to health facilities in MTAPS supported HZs	Semi-annually	0%	0	0% (0/12)			
DRC 12	# of mini awareness raising campaigns for active detection of tuberculosis and adherence to TB treatment supported by MTaPS	Semi-annually	0	0	0			

Annex Table 2: Indicator JC1: Percentage of WHO international Health Regulation (IHR) benchmark actions completed with MTaPS support for each level of JEE capacity (IPC, AMS, and multi-sectoral collaboration) for PY4Q1

WHO Benchmark	JEE capacity level	MTaPS-supported country												
		Bangladesh	Burkina Faso	Cameroon	Côte d'Ivoire	DRC	Jordan	Kenya	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda
P.3.1 Effective MSC on AMR	Limited Capacity - 02	25% (1/4)	50% (2/4)	25% (1/4)	100% (4/4)	75% (3/4)	0% (0/4)	0% (0/4)	0% (0/4)	50% (2/4)	25% (1/4)	75% (3/4)	25% (1/4)	50% (2/4)
	Developed Capacity - 03	25% (1/4)	75% (3/4)	50% (2/4)	75% (3/4)	100% (4/4)	0% (0/4)	75% (3/4)	100% (4/4)	50% (2/4)	50% (2/4)	50% (2/4)	50% (2/4)	100% (4/4)
	Demonstrated Capacity - 04	50% (2/4)	0% (0/4)	25% (1/4)	50% (2/4)	50% (2/4)	0% (0/4)	75% (3/4)	0% (0/4)	0% (0/4)	25% (1/4)	50% (2/4)	75% (3/4)	25% (1/4)
	Sustainable Capacity - 05	0% (0/5)	0% (0/5)	0% (0/5)	0% (0/5)	20% (1/5)	0% (0/5)	40% (2/5)	0% (0/5)	0% (0/5)	0% (0/5)	0% (0/5)	0% (0/5)	0% (0/5)
P.3.3 Infection prevention and control	Limited Capacity - 02	60% (3/5)	0% (0/5)	60% (3/5)	100% (5/5)	40% (2/5)	0% (0/5)	60% (3/5)	100% (5/5)	80% (4/5)	20% (1/5)	80% (4/5)	60% (3/5)	80% (4/5)
	Developed Capacity - 03	67% (4/6)	0% (0/6)	67% (4/6)	83% (5/6)	67% (4/6)	0% (0/6)	83% (5/6)	50% (3/6)	17% (1/6)	0% (0/6)	67% (4/6)	67% (4/6)	83% (5/6)
	Demonstrated Capacity - 04	20% (1/5)	0% (0/5)	20% (1/5)	40% (2/5)	20% (1/5)	0% (0/5)	40% (2/5)	0% (0/5)	0% (0/5)	0% (0/5)	0% (0/5)	100% (5/5)	20% (1/5)
	Sustainable Capacity - 05	0% (0/5)	0% (0/5)	0% (0/5)	0% (0/5)	20% (1/5)	0% (0/5)	20% (1/5)	0% (0/5)	40% (2/5)	0% (0/5)	0% (0/5)	60% (3/5)	0% (0/5)
P.3.4 Optimize use of antimicrobial medicines in human and animal health and agriculture	Limited Capacity - 02	25% (1/4)	50% (2/4)	50% (2/4)	100% (4/4)	100% (4/4)	0% (0/4)	75% (3/4)	75% (3/4)	50% (2/4)	25% (1/4)	75% (3/4)	75% (3/4)	25% (1/4)
	Developed Capacity - 03	17% (1/6)	50% (3/6)	17% (1/6)	83% (5/6)	67% (4/6)	0% (0/6)	67% (4/6)	50% (3/6)	0% (0/6)	0% (0/6)	17% (1/6)	50% (3/6)	50% (3/6)
	Demonstrated Capacity - 04	0% (0/7)	28.57% (2/7)	0% (0/7)	15% (1/7)	43% (3/7)	0% (0/7)	43% (3/7)	0% (0/7)	0% (0/7)	0% (0/7)	0% (0/7)	14%% (1/7)	14% (1/7)

	Sustainable Capacity - 05	0% (0/7)	0% (0/7)	0% (0/7)	0% (0/7)	57% (4/7)	0% (0/7)	14% (1/7)	0% (0/7)	0% (0/7)	0% (0/7)	0% (0/7)	14% (1/7)	0% (0/7)

ANNEX 3: MONTHLY COVID-19 INDICATORS, QUARTER 1, YEAR 4

Annex Table 3.1: Number of people trained on COVID-19 vaccine-related topics with MTaPS support (COV 2. (0.2))

Portfolio/ Disaggregation	Country	Oct 2021	Nov 2021	Dec 2021	Total
	Bangladesh	43	0	0	43
	Burkina Faso	368	0	44	412
	Côte d'Ivoire	0	0	33	33
	Kenya	589	145	172	906
	Mali	0	0	39	39
	Mozambique	0	0	0	0
	Philippines	0	0	0	0
	Rwanda	0	0	0	0
	Senegal	0	0	0	0
	Total by month	**1,000**	**145**	**288**	**1,433**
Sex	Male	611	42	185	838
	Female	389	103	103	595
	Unknown sex	0	0	0	0
Technical area	Policy, planning, and coordination	368	0	0	368
	Pharmacovigilance	480	60	39	579
	Supply chain and logistics	43	85	132	260
	Vaccine service delivery	109	0	40	149
	Human Resources for health, training and supervision	0	0	0	0
	Communications and Advocacy	0	0	0	0
	Community Engagement and Demand	0	0	0	0

	Monitoring, Evaluation and HIS	0	0	77	77

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	Oct. 2021	Nov 2021	Dec 2021	Total
	Bangladesh	1	0	0	1
	Burkina Faso	1	0	0	1
	Côte d'Ivoire	3	0	0	3
	Kenya	0	1	0	1
	Mali	0	0	0	0
	Mozambique	0	0	1	1
	Philippines	0	0	0	0
	Rwanda	0	0	0	0
	Senegal	0	0	0	0
	Total by month	**5**	**1**	**0**	**6**

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. (5.1))

Portfolio/ Disaggregation	Country	Oct. 2021	Nov 2021	Dec 2021	Total
	Bangladesh	43	0	0	43
	Cameroon	0	1	2	3
	Côte d'Ivoire	0	24	113	137
	Kenya	27	7	0	34
	Mali	0	0	0	0
	Senegal	0	0	8	8
	Tanzania	0	0	18	18

Total by month	**70**	**32**	**141**	**243**

Annex Table 3.4: Number of workers who received COVID-19-related training in IPC and/or WASH with MTaPS support (COV 6. (5.2))

Portfolio/ Disaggregation	Country	Oct 2021	Nov 2021	Dec 2021	Total
	Bangladesh	0	0	0	0
	Cameroon	0	40	92	132
	Côte d'Ivoire	0	0	0	0
	Kenya	229	32	40	301
	Mali	0	0	0	0
	Senegal	0	0	0	0
	Tanzania	0	0	79	79
Total by month		**229**	**72**	**211**	**512**
Sex	Male	78	38	112	228
	Female	151	34	99	284
	Unknown sex	0	0	0	0
Trainee Category	HCW	229	57	169	455
	Non-HCW	0	15	42	57

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. (6.1))

Portfolio/ Disaggregation	Country	Oct. 2021	Nov 2021	Dec 2021	Total
	Bangladesh	0	0	0	0
	Burkina Faso	0	0	0	0
	Cameroon	0	0	0	0
	Côte d'Ivoire	0	0	0	0
	Kenya	0	0	0	0
	Mali	0	13	0	13
	Mozambique	0	1	0	1
	Philippines	0	0	0	0
	Rwanda	0	0	0	0
	Senegal	2	1	3	6
	Tanzania	0	0	0	0
Total by month		**2**	**15**	**3**	**20**
Technical area	Risk communication and community engagement	0	0	0	0
	Surveillance, rapid response teams, case investigation	0	0	0	0
	Infection prevention and control	0	13	1	14
	Coordination and operations	2	1	2	5
	Vaccine introduction (incl., PV)	0	1	0	1

ANNEX 3: QUARTERLY COVID-19 INDICATORS, QUARTER 1, YEAR 4

Annex Table 4.1. Percentage of adverse event following immunization (AEFI) reports reviewed with MTaPS support among those submitted to country monitoring systems (COV1 (.2))

Portfolio/ Disaggregation	Country	Oct. - Dec. 2021	Direct Support	Indirect Support
	Bangladesh	98% (753/765)	No	Yes
	Côte d'Ivoire	0% (0/0)	No	Yes
	Jordan	0% (0/309,393)	No	No
	Kenya	100% (378/378)	No	Yes
	Mali	100% (65/65)	No	Yes
	Mozambique	0% (0/0)	No	No
	Rwanda	99% (383/387)	No	Yes
	Senegal	0% (0/0)	No	No
Severity of Event				
	Minor			2,043
	Moderate			0
	Serious/severe			47
	Total			**2,090**

Annex Table 4.2. Number of tools (ex. reporting forms, checklists, and job aids) for planning and conducting safety monitoring developed, adapted, or disseminated with MTaPS support (COV 3. (.7))

Portfolio/ Disaggregation	Country	Oct.-Dec. 2021
	Bangladesh	0
	Côte d'Ivoire	0
	Kenya	0
	Mali	0
	Mozambique	0
	Rwanda	1
	Senegal	0
	Total	1
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	1
	COVID-19 vaccine safety communication	0

Annex Table 4.3. Country has developed or adapted COVID-19 vaccine microplans with MTaPS support (COV 8. (C.1))

Country	Oct.-Dec. 2021
Bangladesh	No
Burkina Faso	Yes
Côte d'Ivoire	Yes
Kenya	Yes
Senegal	Yes

Annex Table 4.4. Country has improved the regulatory and/or policy environment for COVID-19 vaccines with MTaPS support (COV 9. (C.2))

Country	Oct.-Dec. 2021
Bangladesh	Yes
Côte d'Ivoire	No
Kenya	Yes
Mali	No
Mozambique	No
Rwanda	No
Senegal	No

Annex Table 4.5. Country has plans for vaccine distribution to the subnational level developed, adapted, or disseminated with MTaPS support (COV 10. (C.3))

Country	Oct.-Dec. 2021
Côte d'Ivoire	Yes
Kenya	N/A
Senegal	Yes

Annex Table 4.6. Country has developed or adapted vaccine tracking systems to track COVID vaccine with MTaPS support (COV 11. (C.4))

Country	Oct.-Dec. 2021
Côte d'Ivoire	No
Kenya	N/A
Philippines	No
Senegal	No

Annex Table 4.7. Percent of MTaPS-support health facilities in compliance with IPC COVID-19 guidelines/standard operating procedures (COV 12)

Country	Oct.-Dec. 2021
Côte d'Ivoire	0% (0/23)
Kenya	54% (13/24)

Annex Table 4.8. Number of COVID-19 vaccines safety surveillance reported produced under MTaPS support (JO7)

Country	Oct.-Dec. 2021
Jordan	1