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

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FISCAL YEAR 2020 QUARTER 3 (APRIL–JUNE 2020) REPORT

USAID
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FISCAL YEAR 2020
QUARTER 3
(APRIL–JUNE 2020) REPORT

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PROJECT OVERVIEW

Program Name:		USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program
Reporting Period:		Fiscal year (FY) 2020 Quarter 3 (April-June 2020)
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	Global Expert Partners:	Brandeis University, Celsian Consulting, Deloitte USA, Duke-National University of Singapore, El Instituto de Evaluacion Technologica en Salud, IC Consultants, MedSource, IQVIA, University of Washington
	Capacity Resource Partners:	African Health Economics and Policy Association, Ecumenical Pharmaceutical Network, U3 SystemsWork, University of Ibadan, African Collaborating Centre for Pharmacovigilance and Surveillance, Kilimanjaro School of Pharmacy, Muhimbili University, Pharmaceutical Systems Africa
	Collaborators:	International Pharmaceutical Federation, Howard University, University of Notre Dame, WHO, World Bank

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ACRONYMS AND ABBREVIATIONS

aDSM	active drug safety monitoring and management
AIDS	acquired immunodeficiency syndrome
AMR	antimicrobial resistance
AMRH	African Medicines Regulatory Harmonization
AMS	antimicrobial stewardship
AWaRe	access, watch and reserve (WHO)
ARV	antiretroviral
CDC	US Centers for Disease Control and Prevention
CDC	Communicable Disease Control (Bangladesh)
COR	contracting officer representative
CPD	country project director
CQI	continuous quality improvement
CTD	common technical document
DOH	Department of Health
DRC	Democratic Republic of the Congo
DTC	drug and therapeutics committee
DTG	dolutegravir
eAMS	electronic asset management system
ECOWAS	Economic Community of West African States
EDT	electronic dispensing tool
eLMIS	electronic logistics management information system
EML	essential medicines list
EMP	essential medicines and health products (WHO)
FAO	Food and Agriculture Organization
FDA	US Food and Drug Administration
FP	family planning
FY	fiscal year
GBT	Global Benchmarking Tool (WHO)
GFF	Global Financing Facility
GHSA	Global Health Security Agenda
HIV	human immunodeficiency virus
HTA	health technology assessment
IDDS	Infectious Diseases Detection and Surveillance Program
IPC	infection prevention and control
IPCAF	Infection Prevention and Control Assessment Framework
IPCAT2	IPC assessment tool
JAG	joint action groups
JEE	joint external evaluation (of International Health Regulations [2005] core capacities)
KM	knowledge management
LGU	local government unit
LMICs	low- and middle-income countries
LMIS	logistics management information system

M&E	monitoring and evaluation
MCH	maternal and child health
MDG	Millennium Development Goal
MDR	multidrug resistant
MEL	monitoring, evaluation, and learning
MNCH	maternal, neonatal, and child health
MOH	Ministry of Health
MOHFW	Ministry of Health and Family Welfare
MOU	memorandum of understanding
MSC	multisectoral coordination
MSH	Management Sciences for Health
MTC	medicines and therapeutics committee
NEPAD	New Partnership for Africa's Development
NGO	nongovernmental organization
NTP	national tuberculosis program
OIE	World Organization for Animal Health
PEPFAR	US President's Emergency Plan for AIDS Relief
PMIS	pharmaceutical management information system
PQM+	Promoting the Quality of Medicines Plus Program
PSM	procurement and supply management
PSS	pharmaceutical systems strengthening
PV	pharmacovigilance
PViMS	pharmacovigilance monitoring system
PY	program year
RCORE	regional center of regulatory excellence
RHSC	Reproductive Health Supplies Coalition
RSS	regulatory systems strengthening
SADC	Southern African Development Community
SCMP	Supply Chain Management Portal
SIAPS	Systems for Improved Access to Pharmaceuticals and Services
SOW	scope of work
STG	standard treatment guideline
TB	tuberculosis
TLD	tenofovir/lamivudine/dolutegravir
TOR	terms of reference
TOT	training of trainers
TWG	technical working group
UHC	universal health coverage
UN	United Nations
UNDP	United Nations Development Programme
USAID	US Agency for International Development
WASH	water, sanitation and hygiene
WHO	World Health Organization

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 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 combatting infectious disease threats, as well as expanding essential health coverage.

GOAL

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

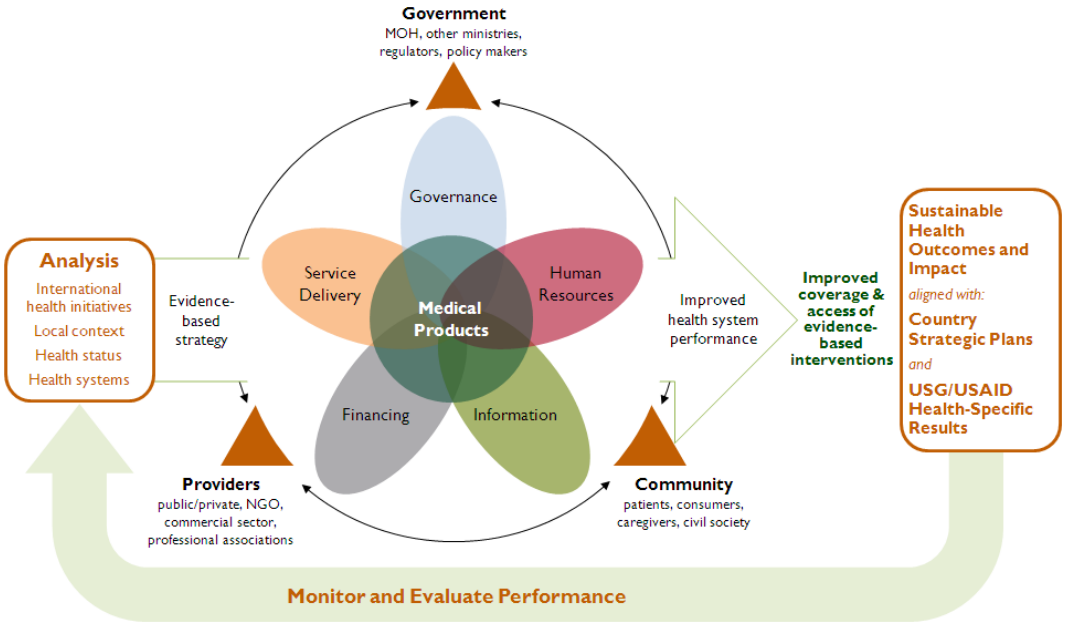

Figure 1. USAID pharmaceutical systems strengthening approach

The program's theory of change is based on USAID's Vision for Pharmaceutical Systems Strengthening (PSS),[1] 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 highlights from MTaPS' performance for fiscal year 2020, quarter 3 (April-June 2020). It summarizes program performance and key challenges and is organized by core funding, objective, and country.

[1] US Agency for International Development. USAID's vision for health systems strengthening, 2015–2019. Available at: https://www.usaid.gov/sites/default/files/documents/1864/HSS-Vision.pdf.

MTAPS RESPONDING TO THE COVID-19 PANDEMIC

Last quarter, national governments, USAID, and other stakeholders requested MTaPS' assistance in the COVID-19 pandemic response. Thus far, MTaPS has received additional funding from USAID to respond to the pandemic in **Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Jordan, Kenya, Mali, Mozambique, the Philippines, Senegal, Tanzania,** and **Uganda**. COVID-19 activities build off the program's already existing platforms and best practices. In these countries, the program assists government stakeholders and implementing partners in strategic planning around the COVID-19 response for the following technical areas:

- Application of COVID-19 precautions by healthcare workers and patients
- Early recognition of COVID-19
- Emergency supply management of IPC commodities
- IPC program management at the national, (sub-)regional, facility, community levels
- Preparedness for the possibility of mass fatalities
- Source control (isolation)
- Sudden influx of patients/surge capacity
- Triage for (severe) acute respiratory infections (ARI/SARI)
- Waste management

Activities under each technical area is broadly categorized through the following:

- Adapting WHO and national guidance and standard operating procedures for COVID-19
- Developing IPC guidance for healthcare workers, health facility workers, patients, family members, caregivers, and visitors
- Assessments of COVID-19 capacity at the national, regional, sub-regional, and facility level
- Training on newly adapted guidance and standard operating procedures
- Disseminating materials (i.e., guidelines, job aids, etc.)
- Assessing and monitoring compliance to policies and guidelines
- Supporting general program management

Table 1 highlights some the results to date; for additional information, refer to monthly progress reports on MTaPS COVID-19 activities.

Table 1. Cumulative MTaPS COVID-19 indicators

#	INDICATOR	CUMULATIVE (AS OF JUNE 30, 2020)
1	# of MTaPS-supported health facilities whose staff received COVID-19-related IPC training, including (same facilities could receive training in several technical areas):	1,767
1.a	# of facilities trained in IPC for COVID-19	1,767
1.b	# of facilities trained in emergency supply chain management	1,195
1.c	# of facilities trained in health care waste management (HCWM)	585
2	# of health workers who received COVID-19-related training	828
2.a	female	19,176
2.b	male	11,097
2.c	sex unknown	7,967
3	%/# of MTaPS target facilities in compliance with IPC COVID-19 guidelines/SOPs	112
4	# and % of MTaPS supported facilities that report stock data for IPC commodities with required frequency	145

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

PROGRESS BY CORE-FUNDED PORTFOLIO

GLOBAL HEALTH SECURITY AGENDA

SUMMARY OF CORE ACTIVITIES THIS QUARTER

GHSA-SUPPORTED COUNTRIES:

Bangladesh
Burkina Faso
Cameroon
Côte d'Ivoire
DRC
Ethiopia
Kenya
Mali
Senegal
Tanzania
Uganda

The effects of COVID-19 spread heavily through all MTaPS GHSA countries this quarter, including lockdowns, restrictions on gatherings, and limited availability of government counterparts who were tied up with national response. As a result, depending on the country, activities were slowed due to postponed and cancelled meetings; objectives related to multisectoral coordination (MSC) were particularly affected. However, MTaPS teams, most of whom are now teleworking, were creative in using remote solutions and focusing on activities that they could accomplish with minimum interaction with outside stakeholders. Some activity funding, for example, in Mali, was reallocated to the pandemic.

MTaPS revised the GHSA technical implementation framework documents based on suggestions from the USAID COR team. A detailed outline for revising the Global Health eLearning (GHeL) course on AMR (part 1) was also developed and sent to USAID for review; work began on developing a similar outline for part 2 of the course. This quarter, MTaPS finalized the generic AMS training set based on experiences and lessons learned from its Mozambique pilot in the previous quarter.

In addition to our engagement with country counterparts and stakeholders during the quarter, MTaPS (HQ and country offices) interacted with the World Health Organization (WHO) (both Geneva and Brazzaville), the US Centers for Disease Control and Prevention (CDC), the Pasteur Institute, multiple training institutions, and universities (including the University Teaching Hospital of Bouake in Côte d'Ivoire and the Catholic University of Health and Allied Sciences-Bugando in Tanzania) to collaborate on AMR-related activities to accelerate progress and produce synergy. In Kenya, MTaPS worked with US Government implementing partner, Management Systems International, to conduct a communications-oriented training for infection prevention and control (IPC) and antimicrobial stewardship (AMS) teams. MTaPS also continue to engage with MTaPS partner, the University of Washington, to analyze survey data and draft a manuscript in Tanzania.

QUARTER PROGRESS BY GHSA-FUNDED PORTFOLIO

The focus of the MTaPS approach and implementation framework is to help countries make progress on the pathway to the next level of joint external evaluation (JEE) capacity in MSC, IPC, and AMS. Table 1 highlights the areas in which MTaPS supported this quarter. In addition, MTaPS is supporting the COVID-19 response in some countries. For progress on MTaPS COVID-19 activities, click here

Table 1. GHSA activities supported this quarter by MTaPS

GHSA Result Area	Activity	GHSA-funded country										
		Bangladesh	Burkina Faso	Cameroon	Cote d'Ivoire	DRC	Ethiopia	Kenya	Mali	Senegal	Tanzania	Uganda
Effective Multisectoral Coordination on AMR	Strengthening MSC governance structures and functions	X				X		X		X		
	Holding multisectoral meetings	X		X	X	X						
Infection Prevention Control Improved and Functional	Strengthening governance structures for IPC										X	
	Assessing IPC programs at national and facility levels				X				X			X
	Developing/ implementing IPC policy and guidance documents			X								
	Capacity building in IPC			X		X		X		X	X	
Use of Antimicrobial Medicines Optimized	Developing and implementing AMS policy and guidance documents	X	X					X				X
	Assessing AMS policies and practices				X	X			X		X	
	Capacity building in AMS		X		X	X		X			X	X

EFFECTIVE MSC ON AMR

To implement national action plans on antimicrobial resistance (NAP-AMR), MSC is paramount, but requires strong country governance structures with clear roles and mandates—and often the creation of new structures, depending on the country. MSC highlights in two important areas follow.

Strengthening MSC governance structures and functions. MTaPS contributed to drafting the ministerial order that defines the roles, composition, and functioning of the One Health Steering Technical Committee, the One Health Technical Secretariat, the One Health Technical Commissions, and the ministerial focal points in **Burkina Faso**. MTaPS also helped develop a roadmap of activities for the One Health platform. To enable the AMR governance body to better coordinate partner efforts and leverage resources, MTaPS staff and a consultant, the focal point for the animal sector, and the MSC technical secretariat finalized an AMR stakeholder mapping for **DRC** and helped update an existing AMR stakeholder matrix in **Kenya**. During the quarter, in **Senegal**, MTaPS supported the One Health platform's revitalization through several meetings organized by the One Health Permanent Secretariat to establish all the required technical working groups (TWGs). The AMR TWG has now been institutionalized with a chair appointed and a roadmap developed for moving forward.

Holding multisectoral meetings. MTaPS worked with the Communicable Diseases Directorate to organize a second multisectoral stakeholder meeting in **Bangladesh** to share progress in implementing the country's NAP-AMR. In **Cameroon**, MTaPS continued to help organize monthly IPC and AMS TWG coordination meetings—now conducted virtually. The participants represented different departments in the Ministries of Public Health and Environment. They discussed the formalization of IPC committees in six selected health facilities that MTaPS will support. MTaPS/**Côte d'Ivoire** supported the AMR-TWG in organizing a one-day online meeting in May with 18 participants from the AMR Secretariat-Observatory on Antimicrobial Resistance (ORMICI), the Legislation and Regulatory Framework TWG, Communication and Trainings TWG, Detection and Surveillance TWG, AMS TWG, USAID, and the CDC. The meeting aimed to monitor the TWGs' progress on NAP-AMR implementation. In addition, MTaPS helped the AMR-TWG organize two online meetings of the AMS

Multisectoral Technical Committee (MTC 5) on April 9 and April 29, 2020, to review progress on MTC 5 activities. During the meeting, the committee agreed to continue holding online coordination meetings to push AMS activities forward; to use Google Drive to collaborate with consultants to draft the AMS policy, guidelines, and plan; and to contribute to the national COVID-19 response by integrating committees and taskforces in the field based on their areas of expertise. During this quarter in **DRC**, MTaPS worked with the drug regulatory authority and the AMR-TWG to prepare for upcoming multisectoral field support visits to animal clinics and agropastoral institutions in Kinshasa Province. The visits will be used to learn more about the use of antimicrobials in the animal and environmental sectors, identify bottlenecks that hinder the appropriate use of antimicrobials, and provide appropriate recommendations. Two preparatory meetings in May (one remote and one in-person) were attended by representatives from all three sectors who developed the data collection tool and identified the four institutions to visit.

IPC Improved and Functional

Strengthening governance structures for IPC at the facility level. MTaPS **Tanzania** provided technical support to the Ministry of Health Community Development, Gender, Elderly, and Children (MOHCDGEC) to establish IPC subcommittees as part of existing hospital quality improvement teams, so that health care workers can integrate IPC activities into their daily activities more easily. So far, four of six target hospitals have formed IPC subcommittees, and members received orientation on their roles and responsibilities. The subcommittees are tasked with strengthening health worker capacity in IPC practices; ensuring the availability of personal protective equipment (PPE), injection safety devices, and related commodities; promoting behavior change strategies to improve IPC practices; disseminating job aids and informational materials; and promoting appropriate health care waste management.

Assessing IPC programs at national and facility levels and developing responsive action plans. In **Côte d'Ivoire**, MTaPS supported the AMR-TWG in hiring a consultant to conduct a rapid assessment of hygiene and IPC conditions in the animal health sector. The consultant collected data at 10 veterinary clinics, 8 slaughterhouses, and 20 poultry farms in 10 locales throughout the county. In addition, MTaPS helped the AMR-TWG use WHO's IPCAT2 to carry out a national-level IPC assessment during a one-day meeting in June. A team of three from WHO, USAID, and CDC collected data from senior staff from the MOH, Pasteur Institute, WHO, CDC, USAID, and MTaPS. Figure 1 shows the percentage scores for the six IPC core components assessed at the national level. Based on the results, stakeholders recommended (1) establishing an IPC program following WHO guidance, (2) establishing a clear link between different sectors, (3) incorporating the most frequent health care-associated infections into existing guidelines and introducing IPC into preservice health professional training, (4) setting up a health care-associated infection surveillance system in conjunction with the AMR surveillance system, and (5) setting up an evaluation and reporting system on multimodal strategies to improve IPC in health facilities.

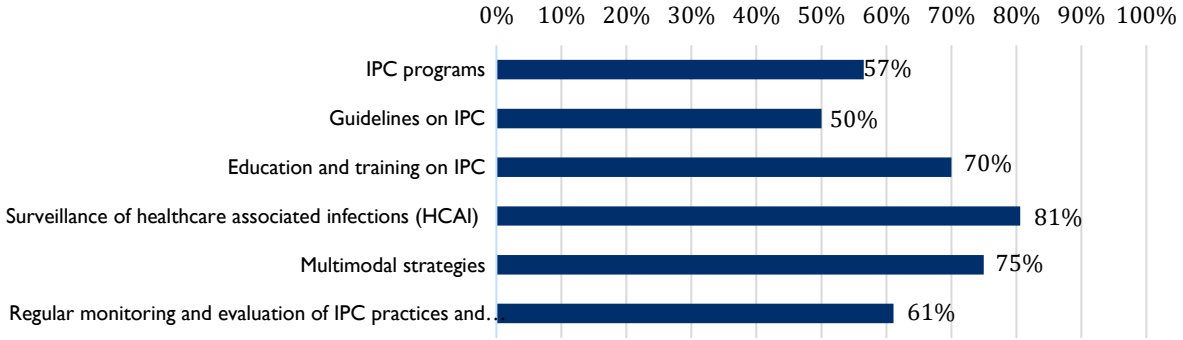

Figure 1. IPCAT assessment results in Côte d'Ivoire (score for each IPC area in the IPCAT 2)

From April 23 through June 26, MTaPS/**Mali** collaborated with the National Directorate of Veterinary Services and the AMR Secretariat to conduct a nationwide rapid assessment of hygiene and IPC in the animal health sector. In addition to a literature review, data collectors interviewed 38 key informants from 13 veterinary clinics and 12 farms in 6 geographic areas. Results showed that IPC practices in the animal health sector were scored at the basic level of 287 (range: 151-300) (table 2). A number of recommendations related to disease control and prevention, infrastructure, training, and funding were developed as a result, and the findings will contribute to IPC guidelines for the animal health sector.

Table 2. National scoring of IPC key components in Mali

#	COMPONENTS	SCORE
1	IPC	45/100
2	Guidelines on prevention and control of animal diseases	61/100
3	Education and training on et formation on prevention and control of animal diseases	37/100
4	Strategies for the implementation of interventions	62/100
5	Monitoring & evaluation	46/100
6	Infrastructure, materials and equipment	36/100
	Total	**287/600**

MTaPS in **Uganda** continued to support health facilities in implementing their continuous quality improvement action plans for IPC. MTaPS helped regional referral hospitals conduct a baseline assessment of IPC capacity and disseminate IPC references at lower-level health facilities that they oversee. MTaPS provided the assessment tools and trained the hospital IPC committees on how to use the tools to conduct the assessment.

Developing and implementing IPC policy and guidance documents. MTaPS/**Cameroon** supported a four-day workshop to draft national IPC guidelines that align with WHO recommendations; 13 participants came from various government agencies, 2 teaching hospitals, and WHO.

Developing individual and local capacities. After developing national IPC curricula adapted for adult learning in the last quarter, MTaPS supported the Ministry of Public Health in **Cameroon** to organize a 3-day workshop to train 15 master trainers from the central, regional, and facility levels. MTaPS also introduced Ministry of Public Health staff to distance learning platforms, such as Moodle and WebEx, that can be used to conduct virtual trainings at health facilities if in-person trainings are restricted. In **DRC**, MTaPS, in collaboration with the General Directorate for the Organization and Management of Health Services, provided IPC refresher training to 94 IPC committee members at the University of Kinshasa Teaching Hospital, Monkole Hospital, and Saint Joseph Hospital. These three hospitals are among the selected COVID-19 centers in DRC.

MTaPS/**Kenya** collaborated with USAID East Africa and Management Systems International to organize a training session for more than 50 counterparts in Nyeri and Kisumu Counties and the MOH on photography and videography. The virtual training built skills on strategic communication, information sharing, and "telling the story" for the national, county, facility, and individual levels in the context of IPC and AMS. The training equipped participants with the ability to systematically measure and document IPC and AMS activities and results. Additionally, MTaPS provided technical assistance during County IPC Advisory Committee-led supportive supervision visits in eight USAID MTaPS-supported facilities in Nyeri and eight in Kisumu Counties. The visits included follow-up to asses if IPC standards were being met and activities performed according to action plans and to provide mentoring on areas of improvement.

In all 16 facilities in both counties, IPC committees had been established with appointment letters and terms of reference issued to the members, and hand hygiene facilities (i.e., alcohol hand rub sanitizers, soap, and hand washing sinks) were available. In Nyeri, challenges included lack of waste disposal mechanisms (only 2/8), no waste management plans, and only one facility with an occupational safety and health program. In addition, screening for severe acute respiratory illness was inconsistent. In Kisumu, none of the facilities had waste management plans, waste disposal mechanisms, or occupational safety and health programs. MTaPS provided feedback on the findings to the IPC committees and the hospital health management teams at each facility to address. At the 16 facilities, MTaPS distributed IPC posters on hand washing and hygiene, alcohol-based rub technique, and donning and doffing PPE to enable compliance to IPC guidelines. In Kisumu County, MTaPS supported a 2-day orientation workshop for 87 IPC committee members in the 8 supported facilities.

In collaboration with the MOH, MTaPS/**Senegal** and its IPC consultants trained 16 trainers selected from hospitals that will pilot IPC programs. The training included IPC core components, emphasizing waste management practices and using PPE in the context of COVID-19. MTaPS also oriented the trainers on the WHO multimodal approach and using a continuous quality improvement mechanism to carry out IPC activities. During the quarter, the newly trained trainers began scaling up onsite IPC training in their facilities with support from MTaPS. In **Tanzania**, MTaPS conducted virtual Moodle platform training for six tutors from the Centre for Distance Education. MTaPS also collaborated with the MOHCDGEC to make IPC mentorship visits to the six MTaPS-supported hospitals to follow up on their IPC action plans. Tanzania uses the standard based management and recognition quality improvement approach for IPC practices in the country's health facilities. A total of 180 health care workers were mentored on hand washing in various service areas, health care waste management, management of hospital linens, instrument processing, packaging and sterilization, and using PPE.

USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Developing and implementing AMS policy and guidance documents. MTaPS facilitated two virtual meetings that were led by **Bangladesh's** Communicable Diseases Control Unit to develop STGs for infectious diseases. Following the AMS rapid assessment from last quarter in **Burkina Faso**, MTaPS worked with the MOH and Animal Resources and Fisheries to draft a national AMS regulatory framework addressing both the human and animal health sectors. The framework, which is under review, was based on Burkina Faso's multisectoral action plan for combating AMR and other policy documents; in addition, MTaPS participated in the five-year update of Burkina Faso's STGs for infectious diseases, which integrated the WHO AWaRe classification for the first time. MTaPS in **Kenya** distributed 40 copies of the printed Kenya Essential Medicines List 2019 to MOH managers and key stakeholders. Distribution of soft copies is ongoing through platforms, such as professional associations, and will be disseminated to counties countrywide. In **Uganda,** MTaPS completed virtual regional meetings to get feedback from veterinary practitioners on the veterinary essential medicines list, IPC guidelines, and appropriate use of antimicrobials in the animal sector. After review and approval from the AMR technical team at the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF), MTaPS helped organize a meeting with national stakeholders who validated the documents. The MAAIF developed six documents that contribute to AMR control in the animal sector, with MTaPS support:

- Uganda Veterinary Essential Medicines List 2020-2025
- The series Guidelines for Infection Prevention and Appropriate Antimicrobial Use in Animal Sector—one document each for pigs, poultry, goats and sheep, fish, and cattle

In March, the National Drug Authority of Uganda sent MTaPS a dataset from its information system to standardize it in a way that it can be used to monitor the number of imported and locally manufactured antibiotics. Analysis of the data showed the lack of a standardized coding system and lack of a linkage between manually and digitally collected data, leading to loss of key information. MTaPS followed up the

technical report with the development of a draft framework and standard operating procedures for the National Drug Authority to monitor volumes of antimicrobials imported into the country.

Assessing AMS policies and practices. By recruiting two consultants, MTaPS supported the AMR-TWG in **Côte d'Ivoire** in conducting a rapid assessment of AMS policies, activities, and the regulatory framework and in using the findings to update the national AMS plan. Following review by MTaPS, the AMR-Secretariat (Observatory on Antimicrobial Resistance in Côte d'Ivoire [ORMICI]), AMR-TWG, and Directorate of Veterinary Services, MTaPS organized a validation workshop with 21 stakeholders from human, animal, agricultural, and environmental sectors; health professional associations; and the medicine regulatory authority. During this quarter in **DRC**, MTaPS and WHO teams organized a meeting with the WHO technical team to discuss the design of a rapid assessment of antimicrobial use and consumption in the human health sector. Data sources they identified include regional distribution centers, the drug regulatory authority, central procurement units, and private import suppliers. MTaPS/**Mali**, in collaboration with the National Multisectoral Coordination Group, also facilitated a rapid assessment of AMS policies, regulations, and supply chain management of antimicrobials in the human and animal health sectors. For human health, findings included the lack of specific regulations for antimicrobials, unlike other therapeutic classes, such as narcotics. In addition, there is no up-to-date database for monitoring and analysis of market authorization procedures. Information on regulatory violations is not centralized. Medicine quality is critical, but there is no product supplier database or a way to track antimicrobial imports. For veterinary medicine, the assessment revealed lack of a regulatory framework and regulations on use and inadequate adherence to regulations. Standardized therapeutic protocols are not widely used in veterinary medicine. The distribution of veterinary products is often managed by unqualified people who lack knowledge of the technical rules related to distribution; in addition, because of unrestrained and often illegal competition, ineffective, outdated, and even dangerous products are on the market. Based on the results of the assessments, recommendations include the following:

- Develop a regulatory framework for antimicrobials
- Develop treatment guidelines for infectious diseases not covered by a specific program
- Improve collaboration among various actors implementing the National Pharmaceutical Policy
- Consolidate regulatory frameworks to guarantee access to safe, effective, and quality antimicrobials
- Put in place a regulatory framework for using antimicrobials that are critical for human and animal health, such as third- and fourth-generation fluoroquinolones and cephalosporins
- Adopt the concept of standardized therapeutic protocols

MTaPS/Mali also helped organize a workshop to develop a guide on antimicrobial use and STGs with government staff and doctors and pharmacists from several health facilities. In **Tanzania,** MTaPS worked with our global expert partner, the University of Washington, the MOHCDGEC, and local experts from Catholic University of Health and Allied Sciences-Bugando and St. John's University to analyze and interpret data from the national antimicrobial consumption-daily defined doses and point prevalence surveys. Regular calls allowed real-time collaboration and capacity building of MOHCDGEC staff in data analysis and interpretation. MTaPS submitted a manuscript on the point prevalence survey to a peer-reviewed journal. The defined daily dose survey found that the majority of antimicrobial consumption occurred in the private sector (65% over a three-year period), which emphasized the need for better regulation. In addition, antimicrobial use adhered to the AWaRe classification recommendation with over 90% in the access class, indicating appropriate use and the importance of essential medicine lists and treatment guidelines.

Developing individual and local capacities. This quarter, MTaPS helped establish and strengthen drugs and therapeutics committees (DTCs), which are proven to effect change in AMS practices, in five GHSA-supported countries. For example, in **Burkina Faso**, MTaPS supported a workshop for 11 participants from teaching hospitals and the national drug regulatory agency to develop terms of

reference to strengthen DTCs; in addition, MTaPS worked with the MOH to organize a 1-day sensitization workshop for 17 hospital directors general, directors of hospital pharmaceutics, and health officers on how to establish and operationalize DTCs. In **DRC**, MTaPS also finalized DTC training modules in collaboration with the University of Kinshasa's National Pharmacovigilance Center and began preparing for DTC trainings in that country.

MTaPS **Côte d'Ivoire** facilitated a WebEx meeting of the AMS-TWG (MTC 5) with 16 participants to track progress on developing training materials for DTC members in health facilities; to date, MTC 5 members have developed the 10 planned modules, which will be used to train DTC members in the 2 targeted health facilities (University Teaching Hospital of Bouake and Cocody). MTaPS and the Nyeri county government in **Kenya** held a virtual two-day training on medicines and therapeutics committees (MTCs) and AMS programs for 39 health care workers from nine facility teams focusing on identifying problems with medicines use, structures for AMS programs, planning AMS programs in facilities, and performing AMS interventions in health care facilities. Building on the previous quarter's training of **Tanzania's** National Medicines and Therapeutic Committee, MTaPS provided remote support to the committee members and AMS focal persons from MOHCDGEC to mentor 87 MTC members on AMS in in six supported hospitals. The commonly observed challenge was clinicians' very low use of culturing infections and antibiotic sensitivity testing. The MTCs will use clinical meetings to sensitize clinicians on these important practices.

In other AMS capacity-building efforts this quarter, MTaPS collaborated with WHO to organize a virtual training session to introduce members of the **DRC** medicine regulatory authority to AWaRe categorization in preparation to revise the STGs and national essential medicines list. MTaPS also completed AMR sensitizations for 200 health care workers in 3 hospitals in Kinshasa. MTaPS/**Kenya** supported AMS work plan follow-up and mentorship at site visits to 16 MTaPS-supported health care facilities and 2 community pharmacies in Kisumu and Nyeri Counties. The visits revealed that most facilities had established MTC and AMS governance structures and were at the initial stages of implementing their work plans. Work plan activities included restricting prescription of third-line antibiotics, developing a hospital formulary, adopting county guidelines for conducting antibiotic use audits in outpatient settings, and improving antibiotic use in facilities by developing preauthorization antibiotic order forms. In **Uganda,** MTaPS helped health facilities hold their quarterly AMS committee meetings; participants requested that MTaPS provide additional AMS training activities for health workers. MTaPS Uganda also provided technical support to the MAAIF to finalize development of key AMR messages for different categories of stakeholders in the agricultural sector: livestock farmers (owners), herdsmen, pet owners, traders (pharmaceutical product suppliers/operators of drug outlets), veterinary practitioners (public and private), extension workers, trainers of veterinary professionals, veterinary students, researchers, media, policy makers, and the general public.

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATE (2020)
Update AMR courses in USAID's Global Health eLearning (GHeL) Center: Develop revised contents for AMR part 1 course after receiving feedback from USAID; complete developing a detailed outline for revision of AMR part 2 course and send to USAID for review	July-Sept.
Generic AMS training set: Develop a train-the-trainer component for this finalized generic AMS training set	July-Sept.

MATERNAL, NEWBORN, AND CHILD HEALTH

Preventing child and maternal deaths requires treatment with safe, effective, and quality-assured medicines and pharmaceutical services. The MTaPS maternal, newborn, and child health (MNCH) 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 maternal and child health (MCH) medicines and supplies and by providing technical assistance to reduce these barriers at both the global and country levels. The goal of the MTaPS/MNCH portfolio is to ensure 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 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL MANAGEMENT AND SERVICES, INCLUDING REGULATION OF MNCH PRODUCTS

Activity 2.1.1: Review of registration of MNCH commodities

A mapping exercise is being conducted to identify barriers and bottlenecks in registration of MNCH medical products in nine countries (**Bangladesh, DRC, Mali, Mozambique, Nepal, Rwanda, Senegal, Tanzania,** and **Uganda**) approved by USAID missions to engage in this activity. During this quarter, data were gathered in the remaining countries and so the data from the nine countries is complete. Country reports are being developed to document the registration processes and bottlenecks for MNCH medicines and medical devices and to highlight key issues that the national medicine regulatory authorities should consider to further improve the process.

MTaPS is also talking with pharmaceutical manufacturers about their perspectives on registration and the barriers they encounter to registering quality MNCH products in LMICs. MTaPS has conducted interviews with eight manufacturers of MNCH medicines and is consolidating the findings to document in a technical brief, together with the findings of the country registration mapping. Considerations for improving registration will help inform regulatory authorities and other policy makers to streamline the process and eliminate the identified barriers and bottlenecks to increase access to MNCH medical products.

Activity 2.1.2: Document quality assurance in local procurement

This activity is to document best practices to ensure quality of medicines when they are procured locally, using examples from **Tanzania** and **Nigeria**. During this quarter, the consultant in Nigeria held technical discussions with the World Bank project team and has started interviewing contacts in the selected states as well as at the national level.

In Tanzania, a consultant was hired and is having discussions with the MOH and the World Bank teams to finalize the choice of regions. It is hoped that the data can be gathered virtually in both countries because of the COVID-19 response.

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

3.2.2: Global learning on pharmaceutical systems for MNCH

As part of the global learning agenda on pharmaceutical systems for MNCH, MTaPS is developing a series of microlearning[2] videos to raise awareness and promote understanding of why strengthening the pharmaceutical system is important for women's and children's health outcomes. The targeted audience of these videos will be those working in global health, particularly USAID staff, and available on a publicly accessible platform. These videos are a complement to the MTaPS online and face-to-face training program on pharmaceutical systems strengthening. During this quarter, MTaPS finalized the content for all three videos: the first video is a general introduction; the second is on regulatory systems and their importance for improving access to safe, effective, and quality-assured medical products and improving MNCH outcomes; and the third is on financing pharmaceuticals and medical products for MNCH outcomes. The narrations for all three scripts have been recorded and the videos are in the design phase. It is expected the videos will be completed early next quarter.

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

Activity 5.1.1: Revise the reproductive, MNCH (RMNCH) quantification guide

MTaPS has been further revising the RMNCH quantification supplement developed under the UN Commission on Life-Saving Commodities (UNCoLSC) during this quarter, based on comments from reviewers from various partner organizations and discussions with technical experts at UNICEF and WHO. A revised final draft was shared with partners for review and comments; once it is received, it will be incorporated into the document to finalize it. Once finalized, it is anticipated that the revised guide will improve quantification practices, which have a direct effect on product availability.

Activity 5.2.1: Improve adherence to amoxicillin DT for childhood pneumonia

Many factors can affect adherence to amoxicillin dispersible tablets for childhood pneumonia. MTaPS has extracted the barriers to adherence that were identified in seven studies commissioned in 2015 to validate a set of product presentations (job aids and dispensing envelopes). Although not an exhaustive literature review, these factors highlight that not all barriers to adherence can be addressed by these tools, but job aids and dispensing envelopes could be useful as part of a strategy to improve adherence.

MTaPS is updating the job aids and dispensing envelopes developed in 2015 by incorporating minor edits resulting from the validation studies to prepare a final package for dissemination in English, French, and Spanish, as these tools had never been made available.

Activity 5.2.2: Define respiratory package

During this quarter, MTaPS has been mapping the support of partners in the respiratory ecosystem to define what is being done where and how best to strengthen systems to ensure appropriate oxygen administration. This mapping highlights the number of partners supporting the respiratory ecosystem at the global and country levels and components of the system that are not as well addressed, such as regulation.

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[2] This process entails turning complex technical content into smaller bite-size or shorter nuggets of content that are more easily digestible by using learning tactics in a manner that makes sense, saves time, and engages learners.

MTaPS is finalizing a comparison of technical packages of medical devices and their technical specifications for the respiratory ecosystem to highlight discrepancies in these packages for administering oxygen therapy.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
2.1.1: Review of registration of MNCH commodities • Country reports will be finalized, approved by USAID, and shared with NMRAs and country missions; interviews with pharmaceutical manufacturers will be completed • Draft technical brief	August
2.1.2: Document quality assurance in local procurement • Complete virtual data gathering on local procurement in both countries • Draft best practices document	August
3.2.2: Global learning on pharmaceutical systems for MNCH • Finalize microlearning videos on MNCH for the PSS	August
5.1.1: Revise RMNCH quantification guide • Finalize guide and format for dissemination	August
5.2.1: Improve adherence to amoxicillin DT for pneumonia • Finalize job aids and dispensing envelopes in English, French, and Spanish • Coordinate dissemination with UNICEF and other projects	July
5.2.2: Define respiratory package • Finalize mapping of global landscape of implementation and support on respiratory package • Finalize comparison of technical packages for oxygen therapy	August

MTaPS COUNTRY ACTIVITIES TO PREVENT CHILD AND MATERNAL DEATHS

This section highlights selected work and achievements in country portfolios during quarter 3 that will improve access to and appropriate use of safe, effective, and quality-assured medicines and pharmaceutical services for women and children. Of the five MTaPS countries receiving mission funding, four, **Bangladesh, Mozambique, Nepal, and Rwanda,** receive MCH funding.

In addition, in **DRC**, where MTaPS has a GHSA-funded portfolio, MTaPS has also received core MCH funding to work in the east of the country in a fragile setting to strengthen pharmaceutical systems for MCH outcomes. During this quarter, MTaPS revised the work plan for support to North Kivu (Goma) and Ituri (Bunia). Priority activities to initiate as soon as the work plan is approved include support to strengthen registration and update the registration of medicines, both at the central level with the Direction de la Pharmacie et du Médicaments and monitoring for registration status in the provinces. Additionally, MTaPS will assist provincial authorities in improving the functioning of provincial TWGs on medicines and strengthen the paper-based data collection system to improve availability, quality, visibility, and use of logistics data, with a focus on MNCH medicines. Dissemination and use of updated MNCH treatment protocols and related job aids to health facilities is also an early priority.

In **Rwanda**, with MCH funding, MTaPS has started to implement MNCH-specific activities to improve access to and use of MNCH medicines, including improving conservation of oxytocin and use of maternal health medicines starting with a situational analysis; improving access to and use of oxygen,

starting with a landscaping exercise; streamlining registration of MNCH medicines and medical devices; and supporting management of medicines at the community level.

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

MNCH COVID-19 response

In **Bangladesh,** MTaPS has a specific role to support the Ministry of Health and Family Welfare to improve procurement and the supply chain and so has been supporting the ministry to monitor the availability and consumption of family planning (FP) and MNCH commodities during the COVID epidemic. The consumption of FP commodities decreased significantly since March through May 2020, impacted by both the COVID-19 situation and Ramadan. In response, the Directorate General of Family Planning initiated virtual meetings with division- and district-level managers to guide them on how to run the FP program in the pandemic and issued instructions to ensure the distribution of contraceptives at all levels, including organization of camps for long-term permanent methods, using all COVID-19 precautions. Notably, the supply of contraceptives and MNCH medicines in sub-district stores has improved over this quarter with a stock-out rate of less than 0.2%.

Regulatory systems strengthening

In **Mozambique, Nepal, Bangladesh,** and **Rwanda**, MTaPS is supporting the regulatory authority to improve the regulatory system and raise the maturity level as per Global Benchmarking Tool (GBT) assessments, and thereby ensure quality of medicines and pharmaceutical services for women and children. These activities will standardize the regulatory system and make it more efficient for ensuring the quality and safety of medicines, including those for women and children. In addition to the core-funded activity to assess registration for MNCH medicines that MTaPS is conducting in nine countries, Mozambique Nepal, and Rwanda made progress on their regulatory system strengthening activities this quarter.

In **Mozambique** this quarter, in addition to supporting the Direcção Nacional de Farmácia (DNF) in reviewing regulations, MTaPS finalized the procurement process for contracting an IT company to provide essential and limited support to the DNF in ensuring that Pharmadex, an electronic tool for medicine registration, is functional. Pharmadex's medicine importation module will allow applicants to request import authorization online and to print import authorization documents that will reduce DNF's paperwork and workload in producing statistical reports. This will improve the speed and quality of the medicine registration process for essential medicines, including MNCH products, reduce the clerical workload for registration technicians, and improve customer service and efficiency.

In **Nepal**, MTaPS supported WHO in conducting a remote verification instead of an external assessment using the GBT. As a result, MTaPS will continue to support the Department of Drug Administration (DDA) in reaching the next maturity level for regulating medicines assessed by the GBT. MTaPS is supporting the reorganization of the DDA to an FDA (amendment to the national Drug Act) and implementation of a quality management system at the DDA. The changes will help the DDA regulate medicines and medical products and improve its regulatory functions. Also, MTaPS is providing technical assistance to the DDA to strengthen its electronic regulatory management information system by identifying the most suitable IT solution through mapping the DDA's divisional workflows and comparing the fit of current and potential needs to existing solutions. The interventions will have a positive impact on the availability of quality-assured MNCH products in the country.

During this quarter in **Rwanda**, MTaPS continued to support the Rwanda FDA to develop regulations and guidelines. In addition to supporting the Rwanda FDA to review two regulations related to medical products inspection and compliance, MTaPS supported the Rwanda FDA in developing two additional guidelines on renewal of registered medical products and medical product-manufacturing technology transfer.

Pharmacovigilance is equally relevant for medicines used for women and children. In **Rwanda,** MTaPS supported the Rwanda FDA in activating the Pharmacovigilance Monitoring System (PViMS), which is currently available for use by Rwanda FDA and its stakeholders. To date, there have been two adverse event reports on MNCH medicines (oxytocin and magnesium sulfate) due to mislabeling; for example, oxytocin was not labeled with storage conditions on the secondary packaging material.

Use of pharmaceutical information for MNCH decision making

In **Bangladesh,** a new dashboard and reporting system were developed for the Directorate General of Health Services' eLMIS for MNCH commodities, targeting better use of data for decision making. The enhanced system will help the DGHS track expired medicines and stock-outs of any commodities at any level of the health facilities, allowing early warning and timely interventions to minimize stock disruptions.

Support antimicrobial resistance initiatives

MTaPS promotes antimicrobial stewardship (AMS), which is particularly important for women's and children's health because of the risk of newborn infections and maternal sepsis. In **Mozambique,** MTaPS revised the AMS training packages based on the inputs from the AMS workshop conducted last quarter by MTaPS for the Hospital Pharmacy Department and AMS drug and therapeutics committee members from eight selected provincial hospitals. These materials will allow health care workers to implement AMS interventions, including for women and children, in prioritized health facilities as part of the multi-pronged technical approach.

OFFICE OF HEALTH SYSTEMS, CROSS BUREAU FUNDING

Activities in this portfolio allow MTaPS to demonstrate and advance technical leadership in pharmaceutical systems strengthening (PSS), in line with the overall program goal and objectives.

ACTIVITY 1: REFINE/VALIDATE PSS INSIGHT IN USAID MTAPS-SUPPORTED COUNTRIES

During this quarter, MTaPS completed its internal review of the finalized, reduced list of indicators and started drafting a technical report to describe the indicator reduction exercise and the resulting 38 indicators. The program also convened a meeting with the WHO Access to Medicines and Health Products Division to discuss the possible development of an access GBT and clarify the role of PSS Insight in that effort (see activity 7).

ACTIVITY 2: ENHANCE THE GLOBAL PHARMACEUTICAL SYSTEMS LEARNING AGENDA

MTaPS continued to make progress on developing an e-learning version of the PSS 101 course, using feedback from the USAID/COR team to further refine the e-learning course modules. Of the eight modules, six have been completed after iterative revisions and are now ready to be uploaded to the MSH LeaderNet platform for deployment.

The program worked with the Joint Learning Network for Universal Health Coverage (JLN) management team to announce a call for expressions of interest for participating in the learning exchange on pricing strategies for medical products. The exchange will consist of three virtual meetings between late July and early September, the first of which will be a scoping meeting to determine the specific topic within pricing that participants would like to focus on. Possible topics include:

- Data sources and potential information gaps in the procurement process for single- and multi-source products
- Price regulation in the private sector
- Measuring the intended and unintended effects of pricing policies
- Effective price negotiations for single-sourced products

JLN country core groups have been encouraged to nominate staff directly involved in or responsible for strategic and operational decisions related to procurement and distribution of medicines and managers of national health insurance schemes who are responsible for reimbursement decisions. To date, JLN has received 32 applications for the exchange. The final list of participants will be announced on July 15, 2020.

MTaPS continued working on its publication pipeline this quarter. Some members of the Pharmaceutical Systems Strengthening Technical Advisory Group (PSS TAG) coauthored a commentary with MTaPS. The commentary entitled *Integrating Pharmaceutical Systems Strengthening in the Current Global Health Scenario: Three 'Uncomfortable Truths'* was published in June in the *Journal of Pharmaceutical Policy and Practice*. Another manuscript by MTaPS on the GBT entitled *The WHO Global Benchmarking Tool: Game Changer for Strengthening National Regulatory Capacity* was accepted for publication in *BMJ Global Health*.

This quarter, the program also drafted and submitted a manuscript on strengthening multisectoral coordination on AMR. The manuscript is currently under review at the *Journal of Pharmaceutical Policy and Practice* and is being considered for a cross-journal series on the challenges and developments related to antimicrobial drug policies in LMICs. The paper was coauthored by staff from all 11 GHSA countries and the Arlington office. The program also drafted two other manuscripts which have yet to be submitted for publication; one is an editorial on the creation and purpose of the PSS TAG and the other is a commentary on generating the political will for regulatory systems strengthening.

The program also continued with its Pharmaceutical Systems in Practice series, a brown bag series open to MTaPS staff and partners and all MSH staff. In April, Overseas Strategic Consulting presented the process MTaPS used to actively identify and engage key stakeholders in the development of a multisectoral AMR communication strategy in Tanzania. The presentation highlighted the benefits of an effective co-design process and lessons learned. In May, MTaPS/Kenya presented the multisectoral coordination approaches being used to strengthen governance structures at the national, county, and health-facility levels in both antimicrobial stewardship and infection prevention and control to combat AMR and promote patient safety. The presentations had 78 and 88 participants, respectively.

ACTIVITY 3: IN COLLABORATION WITH CORE PARTNER NEPAD, SUPPORT THE AMRH INITIATIVE TO INCREASE INSTITUTIONAL AND HUMAN RESOURCE CAPACITY FOR PHARMACEUTICAL REGULATORY SYSTEMS IN AFRICA

The program continued to review the report from the baseline assessment of the performance of 11 selected regional centers of regulatory excellence (RCOREs) by using the validated M&E tool for RCOREs. The report was reviewed to ensure appropriateness of the methods used for strengthening pharmaceutical regulatory affairs in the designated RCOREs and as a preliminary step for developing a manuscript for submission to a peer-reviewed journal.

MTaPS continued to participate in virtual meetings and webinars organized by AUDA-NEPAD to discuss the progress on medical product regulation on the continent, especially in the wake of COVID-19. The MTaPS program director participated as a panelist in a webinar entitled Robust Regulatory Systems: A Critical Enabler of Local Pharmaceutical Development in Africa, hosted by AUDA-NEAPD on June 8, 2020. MTaPS also participated in the African Vaccine Regulatory Forum webinar on Safety in Clinical Trials and Post-Registration. Internally, the program met with the USAID COR team to discuss a strategy for continued support of harmonization efforts being led by AUDA-NEPAD and creation of the African Medicines Agency.

The program also supported AUDA-NEPAD to initiate a quality review of the Medicine Regulatory Harmonization (MRH) Program management tool. MTaPS engaged a consultant who has experience working with IGAD where the guidance document will be piloted. The consultant is currently working on the tool to produce a guidance document to facilitate regional MRH programs to be implemented in a more structured way to have long-lasting impact.

ACTIVITY 5: DEVELOP A ROADMAP FOR HEALTH TECHNOLOGY ASSESSMENT (HTA) INSTITUTIONALIZATION FOR LMICS

MTaPS edited the roadmap for HTA institutionalization in LMICs. The roadmap entitled Practical Guide for Systematic Priority Setting and HTA Introduction provides a stepwise approach for advancing HTA, including agenda setting, policy formulation, potential options for implementation, and impact evaluation. The team received feedback from 12 of the 26 global HTA experts contacted for review of the first draft. An advanced and comprehensive version of the draft roadmap was prepared based on feedback and additional contributions from global experts. The updated document was sent for final feedback to reviewers and the USAID COR team. The responses from global experts have been unanimously positive with minor editorial comments provided by reviewers in the second review. Most of the reviewers have also agreed to be listed as contributors to the roadmap. These endorsements will be instrumental in expanding the reach and utility of the roadmap for advancing HTA in LMICs.

Because of the global COVID-19 pandemic, a previously planned dissemination and capacity-building workshop in the region has been canceled for this project year. In lieu of the regional workshop, the MTaPS team will be gathering feedback through an open-ended online survey with the objective of receiving substantive inputs from regional experts across Africa. The focus of the survey is to

understand the status and experiences in introducing HTA and/or systematic priority setting in Africa. This will provide inputs for contextualizing the roadmap. MTaPS has also developed a companion executive summary for the roadmap that will be circulated to enable a quick review of the stepwise approach of the roadmap. A web-based launch of the roadmap is being planned for quarter 4. The brownbag format launch will engage key stakeholders (HTA practitioners, health economists, policy makers, technical assistance partners, and others) to showcase the roadmap. The launch is intended to generate interest for additional action and use of the relevant components of the core roadmap document based on the needs of the specific country.

ACTIVITY 6: EXAMINE OPPORTUNITIES FOR AND BARRIERS TO THE USE OF DRUG SELLERS IN INCREASING ACCESS TO MEDICINES AND OTHER HEALTH TECHNOLOGIES IN LMICS IN SUPPORT OF UNIVERSAL HEALTH COVERAGE OBJECTIVES

In collaboration with LAUNCHDSI, funded by the Bill & Melinda Gates Foundation, MTaPS initiated a case study in Tanzania on engagement of retail drug outlets by the National Health Insurance Fund in the national benefits program. During this quarter, the team incorporated feedback from internal reviewers, prepared the manuscript for publication, and submitted it to the *Journal of Pharmaceutical Policy and Practice* for consideration.

ACTIVITY 7: SUPPORT WHO-LED CONSULTATIONS ON IDENTIFYING ENABLERS AND PREDICTORS OF ACCESS TO MEDICINES

After a hiatus due to the engagement of the Access to Medicines and Health Products Division in the COVID-19 response, discussions resumed this quarter on the potential collaboration on the development of an access GBT. The WHO team confirmed a desired collaboration and proposed that as a first step, WHO and MTaPS partner to define the access GBT concept and establish a network of experts to support development of the tool. The intention is that PSS Insight and the preliminary work done on the access dashboard will be part of the conceptualization of the access GBT to ensure its complementarity with these quantitative tools. MTaPS and the WHO team have since initiated regular meetings to take preliminary steps in sharing background documents and mapping out the parameters for collaboration on the concept development.

ACTIVITY 8: SUPPORT AFRICAN REGIONAL HARMONIZATION EFFORTS FOR PV

In this quarter, MTaPS received approval from West African Health Organization (WAHO) to pursue support for development of a web-based platform for improving PV systems in the ECOWAS region. MTaPS held several meetings with WAHO Secretariat to prepare for a virtual meeting convening all 15 ECOWAS member states to discuss modalities for establishing the web-based platform and community of practice. The meeting was held on June 29-30, 2020, with the following objectives:

- Provide information on proposed activities to all members of the ECOWAS PV expert working group (EWG)
- Seek the consent of all countries to share the result of their GBT assessment (self, interim, or external assessment), including the developed institutional development plans (IDPs)
- Obtain the approval of all countries to share the result of their GBT assessment (self, interim, or external assessment), including the developed IDPs
- Develop an implementation plan for the activity
- Agree on modalities for convening a community of practice to use the output of the platform for improving PV in the region
- Discuss and agree on the hosting of the platform

The meeting resulted in the development of an implementation plan for setting up the web-based platform to collate regional data and information on findings on the PV function from the GBT and aggregate data on adverse drug reactions. The member states also agreed to define terms of reference for the community of practice.

ACTIVITY 9: LOCAL HEALTH SYSTEM SUSTAINABILITY (LHSS) PROJECT AND MTAPS COLLABORATION ON INCREASING ACCURACY OF PHARMACEUTICAL EXPENDITURES

As part of its collaboration with the USAID LHSS Project to improve the availability and quality of pharmaceutical expenditure data, MTaPS will conduct field work in Burkina Faso to understand and document the data availability challenges faced by stakeholders who have to make decisions about pharmaceutical spending in-country, obtain existing pharmaceutical expenditure data from stakeholders, and determine how the data can be aligned with the health accounts framework. Because of the COVID-19 pandemic, MTaPS will conduct the fieldwork virtually with support from a local consultant. This quarter, the program initiated the process for contracting the consultant who will lead the local effort to collect data at the national level in the MOH, namely, the key programs: malaria, TB, HIV, Direction de la Santé de la Famille, Centrale d'Achat des Medicaments Essentiels Generiques in Ouagadougou and Bobo Dioulasso and from identifiable donors, such as UNICEF, WHO and UNFPA.

ACTIVITY 10: IDENTIFY gaps IN INTEGRATION OF IPC/WASH CRITICAL CONDITIONS INTO THE QUALITY OF CARE AND QUALITY IMPROVEMENT TOOLS AND PROCESSES

In the previous quarter, MTaPS reviewed 19 documents related to quality of care/quality improvement (QOC/QI) in the Bangladesh health system. This will be the basis for identifying key informants from the Bangladesh health system and drafting an interview guide. Interviews are intended to gather information on the use of QOC/QI processes as they relate to WASH and IPC practices in health facilities in Bangladesh and how they have been used so far. Because of the COVID-19 situation in Bangladesh, meetings and local travel are restricted, so movement on key informant interviews was not a priority. The team started conducting a literature search and review of articles that describe barriers, successes, and lessons learned in improving IPC/WASH using QOC approaches, particularly in maternal, newborn, and child health settings.

ACTIVITIES FOR NEXT QUARTER

#	ACTIVITY AND DESCRIPTION	DATES (2020)
1	Complete report on the reduced list of indicators and reduction process	September
2.1	Select and announce final list of participants for learning exchange	July
2.1	Convene virtual meetings for the learning exchange	July–September
2.2	Submit editorial on PSS TAG	August
2.3	Refine modules 5 and 7 of the e-learning version of PSS 101	July–September
2.4	Finalize and submit manuscript on political will for regulatory systems strengthening	July
3.2	Draft manuscript on RCORE performance for publication in a peer-reviewed journal	July
3.3	Work with consultant to review and restructure the MRH program management guidance document in preparation for piloting in IGAD region	July
5	Disseminate roadmap and gather inputs from African regional experts for contextualization of the document	July
	Incorporate inputs received from experts on HTA implementation across various settings in the region	August–September
7	Begin collaboration with WHO to develop the concept for the access GBT and establish a network of experts	July–September
8	Meet with ECOWAS PV EWG, WAHO information technology team, EWG for information management systems, and Sidmach Technologies to discuss details of what will be on the platform	July
	Format of data sharing, partners to work with, creation of dashboards, etc. (WAHO is already developing a web portal for the Medicines and Vaccines Programme which includes PV)	July
	Engage WHO Geneva as a partner for collaboration on sharing the validated GBT reports and IDPs on the regional platform and creating the regional economic community data aggregation	July–August
	Trial testing of the developed web-based platform and community of practice	August
9	Start data collection in Burkina Faso pending USAID Mission concurrence	August
10	Conduct a literature review focusing on articles that describe barriers, successes, and lessons learned in improving IPC/WASH using QOC approaches with an emphasis on MNCH Identify key informants and develop an interview guide to gather information on the use of QOC/QI processes as they relate to WASH and IPC practices in health facilities in Bangladesh and how they have been used so far	July–September

CROSS-CUTTING ACTIVITIES

GENDER ACTIVITIES

The gender activities for this quarter continued focusing on bringing gender to the forefront of MTaPS, through building staff capacity, creating knowledge learning products for dissemination, contributing to revisiting MTaPS gender indicators, and participating in year 3 work planning activities. One of the key activities is the monthly gender working group, led by MTaPS' partner, Overseas Strategic Consulting (OSC). The focus this quarter has been on solidifying a useful work planning tool in time for annual work plan submission. After several iterations of the gender framework, a completed MTaPS Guide for Gender in Work Planning has been approved by the senior management team and distributed to teams for reference in year 3 annual work planning. This guidance document is intended to assist country teams in designing and implementing appropriate activities that are in line with the eight gender approaches and mitigate gender disparities.

In coordination with the monitoring, evaluation, and learning (MEL) team, OSC worked to reevaluate what gender indicators will be included in the MTaPS MEL plan and subsequently added the following indicators:

- Number of pharmaceutical sector-related policy, legislation, regulation, or operational documents with gender inclusive language that are developed or updated with technical assistance from MTaPS
- Number of gender-related technical guidance documents and other capacity-building products produced by MTaPS

Each of the above activities builds on and increases MTaPS gender capacity, learning within the program, and relates to the approved gender indicators.

At the country level, OSC is currently responding to additional comments on the Philippines' Gender Exploratory Research Report, with completed submission planned for July 15, 2020. The final version of the report will be closely aligned with the recently developed gender action plan designed by the MTaPS/Philippines team and will include specific recommendations for incorporating gender considerations across the objectives, focusing on tuberculosis and family planning supply chain management, tuberculosis and family planning pharmacovigilance, and newly added recommendations for gender consideration during emergency/pandemic response and programming.

PROGRESS TOWARD OBJECTIVES

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

Promoting transparency and accountability is a prerequisite for improving access to essential medicines and strengthening health systems to achieve universal health coverage (UHC).[3] Poor governance in pharmaceutical systems can reduce access to pharmaceutical products, inflate medicine prices, and waste scarce health system resources.[4] 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 highlights selected areas of work on MTaPS governance activities in this reporting period.

TRANSPARENCY AND ACCOUNTABILITY OF COUNTRY PHARMACEUTICAL SYSTEMS IMPROVED

In the **Philippines**, MTaPS is providing technical assistance to the Department of Health (DOH) to increase its capacity to plan, implement, and sustain an integrated and well-functioning supply chain that will ensure adequate availability of health commodities and support the government's commitment to UHC. A key component of the technical assistance focuses on strengthening the capacity of the DOH's procurement and supply chain management team (PSCMT) to effectively fulfil its redefined role of stewardship, policy making, capacity building of local government units, oversight of PSCM performance, and providing shared services to support the transition from a centralized model with fragmented PSCM functions to a decentralized and integrated system. With support from MTaPS, the PSCMT developed a countrywide PSCM performance management plan that sets out the PSCMT's strategic commitments for PSCM, a roadmap of activities, and key performance indicators for monitoring PSCM functions. Once formally adopted, the plan will be aligned with the Civil Service Commission's performance governance system and incorporated into the government's performance commitment reports. This step marks progress toward improving leadership and accountability and ensuring that PSCM functions are maintained and effectively coordinated in the country, including during emergencies, such as COVID-19.

As **Nepal** continues its transition to a federated system, MTaPS is assisting the Department of Drug Administration (DDA) and the Ministry of Health and Population (MOHP) in reviewing options and proposing a new organizational structure for the DDA that best supports its functional responsibilities in the decentralized system, as well as its role in stewardship, coordination, oversight, and enforcement. Following an announcement by the government in this reporting period of its intention to create a single autonomous body that will be responsible for regulating medical products and food, MTaPS technical assistance now includes supporting DDA's transition into the new Food and Drug Administration. MTaPS joined DDA, MOHP, the National Medicines Laboratory, and the USAID PQM+ Project to agree on next steps that will include a comparative analysis of the organizational structure of national regulatory authorities in other countries. MTaPS' partner Celsian will take the lead on developing a report for discussion that will also include the findings of a document review, survey, and interviews with key Nepali stakeholders to inform decision making on the proposed new structure.

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

4 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

MTaPS' technical assistance in governance to GHSA-supported countries has resulted in the following:

- A ministerial order developed with support from MTaPS that sets out the roles, composition, and functioning of **Burkina Faso's** One Health Steering Technical Committee, the One Health Technical Secretariat, the One Health Technical Commissions, and the respective ministerial focal points was endorsed and signed by all ministers involved in the One Health platform. Additionally, MTaPS worked with the national drug regulatory authority and representatives from four teaching hospitals in the country to draft terms of reference (TOR) for hospital drugs and therapeutics committees (DTCs).
- Reports of supportive supervision visits to 16 MTaPS-supported health facilities in the **Kenyan** counties of Nyeri and Kisumu noted that all facilities have established infection prevention and control (IPC) committees and issued TOR and appointment letters to committee members. The committees are now moving forward with implementing work plans. Most of these facilities have also established medicines and therapeutics committees (MTCs) and antimicrobial stewardship (AMS) governance structures, many of which are now starting to implement their work plan activities.
- In **Mali**, TOR for facility-level DTCs developed in the previous quarter with support from MTaPS were validated at a workshop. The Department of Pharmacy will submit a ministerial note to the minister of health for signature in the next quarter after which facility heads will sign the internal regulations that will set out the operating mechanisms for the DTCs.
- TOR for **Tanzania's** national IPC technical working group (TWG) were submitted to the multisectoral coordination committee for endorsement.

For more detail on MTaPS' AMR activities and the GHSA, refer to the GHSA section and objective 5/AMR activities in this report.

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

As a first step toward strengthening **Nepal's** legal and regulatory framework for medicines and other health products, MTaPS and its partner, the International Law Institute-African Centre for Legal Excellence (ILI-ACLE), is assisting the MOHP and DDA in reviewing existing legislation to identify gaps. The existing legislation needs to be amended to include adequate provisions for DDA and related entities to regulate, enforce legal provisions for, and facilitate access to essential pharmaceuticals. To help finalize the report, which maps the various rules, regulations, codes, and guidance and outlines the scopes and relationships to each other and the overarching drug act, MTaPS held a virtual question and answer session with DDA, the national medicines laboratory, and PQM+. The next steps are to finalize the report and share it with stakeholders for inputs on proposed amendments. Recently, the government decided to create an autonomous authority to regulate both food and drugs. MTaPS, in partnership with ILI-ACLE, is supporting DDA and the Nepal Law Commission to draft a bill addressing the anticipated change in the range of products regulated by DDA.

Mozambique promulgated a new law on Medicines, Vaccines, and Other Biological Products for Human Use in 2017, which provides for establishing a semi-autonomous national medicine regulatory authority. The act also created the National Directorate of Pharmacy (DNF) as an interim measure, which will later transform into ANARME, the new NMRA. MTaPS is assisting the newly formed DNF to develop regulations for operationalizing ANARME. In this reporting period, MTaPS reviewed two regulations: the first regulates pharmaceutical inspection and the second regulates the pharmaceutical profession. At the request of the DNF, MTaPS also drafted a guideline for labelling and packaging in line with the decree on registering medicines.

In **Rwanda,** MTaPS is providing technical assistance to develop and validate regulations to support the newly enacted medicines act. MTaPS provided technical assistance to review two regulations for the newly created Rwanda Food and Drug Administration (FDA) that addresses the suitability of premises

for pharmaceutical services and the registration and general conditions for selling pharmaceutical products.

MTaPS continued its collaboration with the UK Department for International Development-funded Better Health in Bangladesh (BHB) Project to assist **Bangladesh's** Directorate of Drug Administration (DGDA) in developing a strategy and tools for inspecting and monitoring private retail medicine shops and pharmacies. This is part of the BHB Project-led initiative to establish an accreditation system for medicine shops, which are the first port of call for health care and medicines for many people in Bangladesh. MTaPS worked with BHB to incorporate and review the relevant legal provisions included in the strategy for ensuring compliance with standards of model pharmacy and medicine shops. It is expected that DGDA will collaborate with the Pharmacy Council of Bangladesh to monitor and control pharmaceutical retail outlets and foster compliance.

As part of GHSA-funded activities to strengthen AMS, MTaPS assisted **Cameroon**, **Cote d'Ivoire**, **DRC,** and **Mali** in conducting a rapid situational analysis of the policies and regulations that pertain to the use of antibiotics in the human and the animal sectors. The assessment findings for Cote d'Ivoire were reviewed and validated at a workshop during this reporting period. MTaPS aims to work with countries to validate and finalize the reports in the next quarter and plan for addressing gaps. In **Burkina Faso**, MTaPS worked with the Ministry of Health and Animal Resources and Fisheries to draft a national regulatory framework for AMS for the human and animal sectors. Also, in Burkina Faso, the antibiotic prescription guide was updated with assistance from MTaPS in line with the results of the antibiotic resistance surveillance. The guide, which is valid until 2024, also now incorporates the WHO AWaRe classification for antibiotics. In **Uganda**, MTaPS completed a series of e-consultations that enabled officials from the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) to provide inputs on the veterinary essential medicines list, and five guidelines on infection prevention and appropriate antimicrobial use in the animal sector. A meeting was held to validate the documents, which are planned to be finalized in the next quarter. For more detail on MTaPS' AMR activities and the GHSA, refer to the GHSA section and objective 5/AMR activities in this report.

STAKEHOLDER ENGAGEMENT AND EMPOWERMENT, INCLUDING CIVIL SOCIETY AND CONSUMERS, INCREASED

No activities reported this quarter.

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

INSTITUTIONALIZATION OF PROVEN, INNOVATIVE APPROACHES TO BUILDING HUMAN RESOURCE CAPACITY

Workforce Planning and Development

In the **Philippines**, MTaPS is assisting the Department of Health (DOH) in conducting a workforce assessment and developing a workforce capacity development plan as part of efforts to strengthen and institutionalize procurement and supply chain management (PSCM) and pharmacovigilance (PV) systems in the country. To complete the assessment process begun in the previous quarter, MTaPS developed an online survey to gather additional data from individuals and through remotely facilitated focus group discussions. The assessment findings will inform the creation of a workforce development plan that sets out the required number and distribution of PSCM and PV staff positions and their roles and needed skill sets; the plan also provides recommendations for addressing identified gaps and professionalizing the PSCM and PV workforce to ensure uninterrupted access to pharmaceutical services and safeguard patient safety.

Curricula and Training Materials

In **Kenya**, MTaPS is supporting the University of Nairobi's School of Pharmacy to integrate AMS-related topics into the pre-service curriculum for pharmacists. MTaPS worked with the School of Pharmacy's AMS team to review the five modules, which will include a module on ethics, leadership, communication, and governance. The draft curriculum and trainer's guide are expected to be finalized in the next quarter. MTaPS is also collaborating with the Pharmaceutical Society of Kenya and representatives of various health professional associations to develop a continuing professional development and relicensure-linked in-service AMS course that the associations will deliver to their members. In this reporting period, peer reviewers provided feedback on the draft course content. MTaPS is also working with the professional associations to complete a training needs assessment for an infection prevention and control (IPC) course.

Building on curriculum design activities initiated last quarter, MTaPS supported **Côte d'Ivoire, DRC, Mozambique,** and **Senegal** in designing and producing comprehensive in-service training packages to build institutional capacity in IPC, antimicrobial stewardship (AMS), and COVID-19 emergency responses and to strengthen drugs and therapeutics committees (DTCs).

In **Côte d'Ivoire,** the MTaPS team collaborated with the AMR Secretariat and its multisectoral technical committee on sanitation and IPC and the Directorate of Veterinary Services to finalize the trainer's guide and the participant's handbook on hygiene and IPC in animal health. The guides are based on training materials developed with support from MTaPS in the previous quarter. Additionally, MTaPS is working with the multisectoral technical committee on AMS to develop training materials for DTC members, based on materials developed by MTaPS for other countries. Ten of the 11 modules have been drafted and are ready for review, after which MTaPS will support workshops to validate the sessions and develop the macro and micro designs, facilitator's guide, and participant's manual.

DTC training modules developed in collaboration with the University of Kinshasa's National Pharmacovigilance Center and the General Directorate for the Organization and Management of Health Services (DGOGSS) were finalized in **DRC** where MTaPS is assisting to establish and capacitate DTCs in three teaching hospitals to oversee AMS and IPC activities. Preparatory meetings were held with each

of the hospitals to plan for the trainings and to identify members of their respective hospital DTC and IPC committees. The need for IPC training was identified as a priority because of the COVID-19 pandemic, and so MTaPS collaborated with the DGOGSS to deliver a 12-day refresher IPC training to 94 health care workers (50 female, 44 male) from the three hospitals that are also designated as COVID-19 centers in DRC.

In a joint effort that involved the Ministry of Health's (MOH) Hospital Pharmacy Department and DTC/AMS Committee members from eight provincial hospitals, **Mozambique's** AMS training package was revised in line with inputs agreed on in a workshop held the previous quarter. These materials will be used to provide in-service training for health care workers to strengthen their capacity to implement AMS interventions.

In **Senegal**, MTaPS and its consultants for IPC helped the government finalize the revision of the facilitator's guide and participant's manual for IPC training in hospital settings. These guides were initially developed in 2017 by the USAID NEEMA Project. The updated guides have been submitted to the MOH for institutional validation after which MTaPS will help to organize a workshop to enable IPC stakeholders to review and validate the guides.

E-Learning Platforms and Course Materials

As part of GHSA-funded capacity building for health professionals and students, MTaPS continues to support the Governments of Burkina Faso, Cameroon, Côte d'Ivoire, Mali, Senegal, and Tanzania in establishing IPC and AMS e-learning programs. MTaPS produced a comprehensive e-learning course in French in IPC for use in **Burkina Faso, Cameroon, Côte d'Ivoire,** and **Mali**. The e-learning course consists of 10 highly interactive modules and an introductory video that can be deployed synchronously or asynchronously.

In addition, MTaPS helped **Senegal's** Ministry of Health and Social Welfare produce a country-specific e-learning course consisting of three modules and a short introductory video. The e-learning course focuses on IPC standard precautions and hand hygiene with quizzes to check the learners' understanding of the content. The e-learning course is expected to be disseminated through the ministry's Moodle platform next quarter. In **Tanzania**, MTaPS provided a three-session virtual capacity-building training to six tutors from the MOH's Centre for Distance Education. The training included enhancing the tutors' technical skills in virtual platforms and course management to equip them to deliver IPC training to students using Moodle. At the end of these sessions, tutors were able to independently upload the IPC e-learning course produced with MTaPS support in the previous quarter on their Moodle platform.

In **Rwanda**, MTaPS worked with the national regulatory authority and key stakeholders to draft a course outline for an e-learning course on PV. The development of course materials will be shared between MTaPS and the national regulatory authority to build country ownership and capacity to maintain and update the course in the future.

Supportive Supervision and Mentoring

The **DRC** Red Cross has requested assistance from MTaPS to support implementation of a continuous quality improvement (CQI) approach for IPC in 21 Red Cross-supported health facilities in Kinshasa and Kongo Central Provinces. MTaPS met with the Red Cross to discuss baseline collection and monitoring methods and will assist with implementing a strategy for supervising, coaching, and mentoring IPC committees. MTaPS will also help identify indicators for M&E of committees' performance.

Building on the training provided to **Tanzania's** national medicine and therapeutic committee (NMTC) in the previous quarter, the trained NMTC members and AMS focal persons from the Ministry of Health, Community Development, Gender, Elderly, and Children (MOHCDGEC) conducted AMS mentorship visits to MTC committees in eight facilities with remote support from MTaPS. MTaPS also supported the MOHCDGEC remotely in carrying out IPC mentorship visits to six facilities. The purpose

of the visits was to build the capacity of the MTCs and IPC committees in implementing agreed on activities through a CQI approach.

STRONGER CAPACITY OF GOVERNMENT TO MANAGE PHARMACEUTICAL SYSTEMS

Competency-Based Training Activities

In Mozambique, MTaPS is helping the National Directorate of Pharmacy (DNF), which will ultimately transform into a semi-autonomous national regulatory authority, to establish a functional quality management system (QMS) that complies with national and international standards as part of efforts to improve and standardize the country's regulatory processes. In this quarter, MTaPS and its partner, Celsian Consulting, delivered a virtual training course to 26 DNF staff on QMS awareness, risk management, and quality management tools that can support regulatory decision making. Also, to support implementation of an active surveillance system, MTaPS, with support from Columbus Consulting, facilitated a virtual three-day TOT on the electronic PV Monitoring System (PViMS) for staff from DNF and the HIV program. As a result of the competency-based TOT, which included training on proper collection, management, and analysis of the safety data generated, Mozambique now has five master trainers that can replicate the training and transfer the knowledge and skills to provincial teams. The training was conducted online because of the COVID-19 lockdown. Soon after being trained, the five master trainers, with support from MTaPS, organized and cascaded online synchronous training activities to build the capacity of seven province level teams (18 male, 16 female) on PViMS data entry. The provincial-level teams will provide supportive supervision to the facilities to enhance the quality of data entered into PViMS.

In **Cameroon**, the MTaPS team supported the MOH in planning and implementing an IPC blended-training workshop. The workshop included face-to-face and online components and aimed to create a pool of master trainers able to replicate blended-training IPC workshops in select facilities by using the national IPC training package developed with MTaPS support in the previous quarter. A total of 15 persons, including 5 champions from MTaPS-supported facilities, participated in the workshop, which introduced them to distance learning platforms, such as Moodle and WebEx, and equipped them with e-learning facilitation skills in the event that face-to-face trainings are not feasible because of COVID-19.

Similarly, in **Senegal**, the MOH, with support from MTaPS, conducted 2 IPC TOT sessions to establish a pool of 16 IPC master trainers, including 4 staff from a private hospital. Master trainers from two hospitals subsequently delivered onsite trainings at their respective facilities using the IPC materials developed with support from MTaPS. MTaPS consultants provided oversight and technical support during all training workshops.

As reported above, MTaPS helped deliver a 12-day refresher IPC training to 94 health care workers (50 female, 44 male) from the 3 hospitals in **DRC**, which are also designated as COVID-19 centers. Additionally, MTaPS, in collaboration with WHO, organized a one-day virtual training for DRC's national drug regulatory authority to introduce the staff to the AWaRe (access, watch, reserve) classification, which is intended to support better monitoring and optimal use of antibiotics.

In **Kenya**, MTaPS supported a virtual training session on photography and videography for 50 counterparts from the MOH and Nyeri and Kisumu Counties. The virtual training, cofacilitated by USAID Kenya, USAID East Africa, and Management Systems International, aimed to build the capacity of the attendees on strategic communication, information sharing, and "telling the story" for the national, county, facility, and individual levels in the context of IPC and AMS. The Kenya MTaPS team also supported the Nyeri County government in delivering a virtual 2-day training on MTCs and AMS facility-level programs and interventions to 39 health care workers (21 female, 18 male) from 9 health facilities.

Institutional Capacity Building

Well-functioning pharmaceutical systems depend on national departments of pharmacy, procurement agencies, contracting, accreditation, and other national and sub-national government departments and managers that have enough capacity to steward, manage, and effect positive change within the pharmaceutical sector.

In the **Philippines**, MTaPS is providing technical assistance to strengthen the capacity of the Department of Health's (DOH's) PSCM team to effectively fulfil its redefined role of stewardship, policy making, capacity building of local government units, oversight of PSCM performance, and provision of shared services to support the transition from a centralized model with fragmentation of PSCM functions to a decentralized and integrated system. The PSCM team, with support from MTaPS, developed a countrywide PSCM performance management plan that outlines the team's strategic commitments for PSCM, a roadmap of activities, and key performance indicators for monitoring PSCM functions. Once formally adopted, the plan will be aligned with the Civil Service Commission's performance governance system and incorporated into the government's performance commitment reports. This step marks progress toward improving leadership and accountability and ensuring that PSCM functions are maintained and effectively coordinated in the country, including during emergencies, such as COVID-19.

MTaPS/**Philippines** has been assisting the DOH in revising the national guidelines on framework agreements to provide for pooled procurement and use of an international procurement mechanism to support decentralization and to address delays connected to the current requirement for rigid, fixed quantities and fiscal year-based procurement policy. MTaPS facilitated discussions between the DOH Procurement Services Unit and Pharmacy Division to incorporate additional guidance on the pooled procurement mechanism and finalize the agreement. The related draft administrative order provides for local government units and the private sector to join the framework agreement or the pooled procurement voluntarily, which is expected to contribute to improving access to quality-assured and affordable products for the population.

MTaPS is assisting **Nepal's** Department of Drug Administration (DDA) and the Ministry of Health and Population (MOHP) in developing a new organizational structure for the DDA that best supports its functional responsibilities and its role in stewardship, coordination, and oversight as the country transitions to a federated system. A recent announcement by the government of its intent to merge the regulation of medicines and food under a new autonomous entity requires that proposed options for DDA's new structure take this change into consideration. MTaPS joined DDA, MOHP, the National Medicines Laboratory, and the USAID PQM+ Project to agree on next steps, which will include a comparative analysis of the organizational structure of national regulatory authorities in other countries. MTaPS' partner Celsian will take the lead on developing a report for discussion, which will also include the findings of a document review, survey, and interviews with key Nepali stakeholders to inform decision making on the proposed new structure.

IMPROVED CAPACITY OF PRIVATE-SECTOR ORGANIZATIONS TO SUPPORT PHARMACEUTICAL OPERATIONS

In **Rwanda**, MTaPS initiated a PEPFAR-funded activity to support the government to increase the number of people that know their HIV status by engaging more community retail pharmacies in the distribution of oral HIV self-testing kits. MTaPS is collaborating with the HIV division of the Rwanda Biomedical Centre (RBC) to increase the number of pharmacies that provide self-testing kits—currently 20 in Kigali and 35 in the rest of the country—and to strengthen monitoring and oversight and also linkages to care and treatment for those individuals that have a reactive test. A preliminary assessment conducted in this quarter revealed the urgent need to improve reporting by community pharmacies to the RBC/HIV division to enable better planning and to improve linkages for confirmatory testing and care when oral self-testing produces a reactive result. The high price of the test kit is also an area of

concern. Based on these findings, MTaPS and RBC/HIV division have identified strategies to enable expansion of self-testing, which includes collaborating with the Rwanda Community Pharmacists Union to select pharmacies for a phased scale up, capacity building for retail pharmacists on self-testing and reporting, and raising awareness using the media.

Large segments of the population use retail pharmacies and medicine outlets as the first point of care. In **Bangladesh**, up to 80% of people seek care from village doctors and retail outlets where overprescribing, selling unnecessary medicines, and issuing antibiotics without prescriptions are frequent occurrences. To support implementation of an accredited medicine shop initiative to improve access to safe, affordable, quality medicine and pharmacy services, MTaPS worked with the Better Health in Bangladesh Project (funded by the UK Department of International Development) to incorporate and review the relevant legal provisions included in the inspection and monitoring strategy for model pharmacies and medicine shops. It is expected that DGDA will collaborate with the Pharmacy Council of Bangladesh to monitor and control pharmaceutical retail outlets and foster compliance to the standards set.

STRONGER MEDICINES REGULATORY CAPACITY, INCLUDING THROUGH REGIONAL REGULATORY HARMONIZATION

MTaPS continued to provide support to countries to strengthen their institutional and individual capacity to improve the functionality of their regulatory systems. Despite delays in implementing some activities because of the COVID-19 lockdowns, MTaPS was able to provide support remotely and carry out several planned activities. In **Mozambique**, for example, MTaPS conducted training sessions on QMS and the PV monitoring system (PViMS) virtually for DNF and health facility staff. Similarly, in the **Philippines**, the team facilitated an orientation on PViMS for staff of the pharmaceutical department, FDA, and other stakeholders. In **Rwanda**, the team drafted regulations and guidelines to bolster the regulatory framework in the country. In **Nepal**, the team, in collaboration with WHO counterparts, worked on validating documentation with the DDA in lieu of the planned interim WHO Global Benchmarking Tool (GBT) assessment.

Activities geared toward strengthening the regulatory systems of national medicine regulatory authorities (NMRAs) and improving efficiency of their regulatory processes include supporting the NMRAs in **Rwanda** and **Mozambique** in reviewing their strategic plans. The situation analysis in preparation for commencing implementation of the QMS for **Rwanda's** FDA was completed and the analysis for **Nepal's** DDA is currently ongoing. In **Bangladesh**, efforts to develop the collaboration between the DGDA and the Pharmacy Council of Bangladesh, with a focus on improving pharmaceutical services at retail pharmacies and medicine outlets, are ongoing while in **Rwanda**, an implementation plan was drafted for operationalizing the standards for pharmaceutical systems developed with support from MTaPS.

In **Mozambique**, enrollment of patients into the active monitoring cohort has commenced with over 1,000 patients already enrolled. Health care providers at provincial and facility levels have been trained to use PViMS to collect and manage reports of adverse events reported by patients in the cohort. In **Rwanda**, MTaPS has identified 10 high-volume facilities that it will support to improve provision of pharmaceutical services to facilitate transition to the new antiretroviral (ARV) combination tenofovir/lamivudine/dolutegravir and to improve implementation of multi-month dispensing. MTaPS in Bangladesh supported DGDA in facilitating a virtual Adverse Drug Reaction (ADR) Advisory Committee (ADRAC) meeting to ensure uninterrupted assessment of received ADR reports, provision of feedback to providers, and use of the information for evidence-based decision making.

Enhancing the Functional Capacity of NMRAS Through Pharmaceutical Regulatory System Strengthening

MTaPS continued to support various NMRAs in their effort to strengthen their regulatory systems and attain the status of a functional regulatory system, i.e., to attain maturity level 3 on the WHO GBT. MTaPS continues to provide support in the various regulatory system strengthening areas. The major areas of support during the quarter are reported below.

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

Refer to objective 1.2, Evidence-Based Medicines Policies, Laws, Regulations, Guidelines, Norms, and Standards Improved and Enforced, for more details.

Improving the regulatory system by establishing a QMS

MTaPS engaged a consultant to support implementation of the QMS in **Rwanda.** A situational analysis of the QMS at Rwanda FDA has been completed and recommendations made to address the gaps identified to meet the requirements according to the ISO 9001:2015 standard. Commencement of activities to address the gaps has been initiated with strong involvement of Rwanda FDA managers. MTaPS, in collaboration with its partner, Celsian Consulting, trained 26 DNF staff (7 male, 19 female) in

Mozambique on QMS processes, including principles of QMS and the concepts of risk management through virtual training sessions. The activity is geared toward supporting DNF to attain ISO 9001:2015 certification and to improve the scoring of the GBT's sub-indicators for attaining maturity level 3. In **Nepal**, Celsian has also commenced a remote situational analysis of the DDA's regulatory system in preparation for implementing a QMS. Relevant documents from DDA have been shared with the team for remote review and assessment. The planned GBT assessment of DDA was delayed because of COVID-19, but remote validation of documents with support from MTaPS is ongoing.

Improving pharmaceutical services by enhancing pharmaceutical standards and workforce capacity for pharmacy and clinical staff

The team in **Bangladesh,** in collaboration with the DFID-funded Better Health in Bangladesh Project, facilitated a workshop to review and incorporate relevant legal provisions for the inspection of model pharmacy and medicine shops and developed a monitoring strategy for ensuring compliance to the national standards. This effort is expected to promote synergy between DGDA and the Pharmacy Council of Bangladesh for control of pharmaceutical retail outlets and to foster compliance with standards.

In **Rwanda**, MTaPS is supporting the MOH to improve the quality of pharmaceutical services at 10 high-volume HIV facilities managed by the RBC. During the quarter, MTaPS developed a survey, which has been approved by RBC, for collecting information from patients, clinicians, pharmacists, and HIV program staff that will help MTaPS tailor its support for transitioning patients to the new tenofovir/ lamivudine/dolutegravir ARV regimen and implementation of multi-month dispensing of ARVs. Additionally, MTaPS, during the quarter, drafted an implementation plan for operationalizing the standards for pharmaceutical services and pharmacy accreditation, which is pending approval by the MOH.

The PV workforce development assessment in the **Philippines** continued with MTaPS developing an online survey to facilitate a second round of data gathering. The team also facilitated virtual focus group discussions based on recommendations from key partners. The assessment is envisioned to provide inputs that will facilitate development of the workforce development plan to direct sustainable workforce capacity-building efforts.

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

In **Mozambique**, MTaPS has engaged a local firm to provide IT support to DNF to ensure smooth running and full functioning of the medicine registration tool Pharmadex. MTaPS and DNF conducted user acceptance testing of the import module of Pharmadex, following which DNF requested that further functionalities, such as release of goods from the port of entry and import of non-medical products and non-registered products, be added to the module. The import module will streamline import processes, support printing of authorization documents, and reduce paperwork for DNF. MTaPS is still working to obtain approval from Direcção Nacional de Farmácia (DNF) for cloud hosting of the online version of Pharmadex. Additionally, MTaPS, in collaboration with Columbus Consulting, supported the DNF and the HIV program to provide a three-day TOT to equip the core active monitoring implementation team made up of DNF and HIV program staff on data entry into PViMS. The 5 master trainers then cascaded the training to 34 provincial and facility-level staff who will be supervising and entering the data into PViMS, respectively, in the 9 facilities across 7 provinces. Prior to the training, MTaPS installed PViMS and procured and delivered nine tablets to the participating sites to facilitate data entry into PViMS.

The **Nepal** team conducted an assessment to determine the functionality and user satisfaction of the current information management system (DAMS) of DDA and compared the feasibility of expanding and strengthening DAMS against adoption of the existing Pharmadex tool. The survey concluded that it was

more feasible and cost effective to deploy Pharmadex than upgrade DAMS. The team will reach consensus on the way forward in the next quarter.

Rwanda FDA commenced use of PViMS, which was installed on its server with support from MTaPS this quarter. Data on 55,099 persons that received the mass Ebola vaccination (first [32,643] and second [22465] doses) are currently being entered into PViMS. Of this, 30 persons (27 after first dose and 3 after second dose) were reported to have experienced adverse effects following immunization while 95 unintended pregnancies were reported among those vaccinated. In addition, health facilities submitted 16 ADR reports and 42 poor-quality reports on other medicines to the Rwanda FDA during the reporting period.

The MTaPS team in the **Philippines** supported the DOH in upgrading PViMS to version 2 for use in active drug surveillance systems for TB and other medicines. MTaPS conducted an orientation on PViMS version 2 with participants from the NTP, FDA, the Lung Center of the Philippines (LCP) research group, and selected TB providers/partners. MTaPS updated the PViMS test server and is currently working with the DOH's Knowledge Management Information Technology Service to address remaining IT concerns. The team plans to organize a series of training and test runs for the NTP, PD, FDA, LCP research group, and selected TB providers/partners in anticipation of the roll-out phase.

Enhancing patient safety and therapeutic effectiveness through improved PV activities

In **Banglades**h, MTaPS facilitated a meeting of the DGDA's technical sub-committee (TSC) to evaluate adverse drug events (ADEs) received by the DGDA between January and March 2020. MTaPS also assisted in reviewing TSC-evaluated ADEs during the semi-annual ADRAC workshop at the DGDA. These meetings of the TSC and ADRAC are geared toward ensuring proper evaluation of ADE reports for appropriate evidence-based regulatory decision making. The team is also working with DGDA on getting a sustainable solution to address the issue of data entry into the VigiFlow system to ensure continuous sharing of safety data with the global community.

The MTaPS team in **Mozambique** worked with the DNF and HIV program staff to provide virtual support supervision to health care providers that are implementing the active monitoring activity in nine health facilities across seven provinces. The team revised the supervisor visit checklist and provided logistical support in the form of airtime to facilitate the virtual supervisory visits via phone calls. So far, 1,202 patients have been enrolled into the cohort across all participating facilities. Follow-up data is currently not available.

In **Rwanda,** MTaPS has drafted the framework that will be used to develop an active monitoring system for the newly introduced dolutegravir-based regimens. MTaPS also recruited a local consultant to support implementation of PV activities. A draft national plan has also been developed to support systematic implementation of PV activities in the country. An outline for a PV e-learning course was also developed during the quarter and is being reviewed by the Rwanda FDA prior to course content development.

Regional regulatory harmonization

In sub-Saharan Africa, MTaPS support to increase regional cooperation among the various regional economic communities is improving medical product regulation and quicken access of essential medicines to patients.

During the quarter, MTaPS, in collaboration with West African Health Organization organized a regional meeting of the 15 member countries of **ECOWAS** to present the concept note for establishing a regional electronic platform to support management and tracking of regional data on the performance of countries' PV systems as assessed through use of the WHO GBT.

Agreements on the following were reached during the meeting:

1) A regional approach for monitoring countries' PV performance on the GBT is desirable as it will provide a means to support countries in improving their PV functions.
2) Many countries within the region have very weak PV systems that need to be supported to attain an acceptable level of performance on the GBT.
3) Countries are willing to contribute data to the platform, but there is a need to define the type of data that will be required from countries.
4) Data confidentiality issues need to be addressed before countries can share their data.
5) A survey should be done to get a sense of possible data elements that countries would be willing to share to guide further implementation.
6) The proposed community of practice should have at least one representative from each member country.

At the end of the meeting, the team developed an implementation plan to capture how some of the agreements reached at the meeting should be implemented.

MTaPS is providing technical support and guidance to conduct a baseline assessment on PV in the **IGAD** member states. Despite setbacks created by the pandemic, MTaPS offered interim measures to assist countries to continue to collect data and information required for the baseline assessment. A review meeting was convened to identify progress and challenges together with providing solutions to move the activity forward.

In the **EAC**, MTaPS worked with the lead agency on PV within the community, Kenya's Pharmacy and Poisons Board, to harmonize PV curricula and develop implementation standard operating procedures (SOPs) for the harmonized EAC PV compendium. The program supported the region to perform a scoping exercise that determined the types of SOPs to harmonize.

The ability of the pharmaceutical industry and regulators to acquire knowledge and skills in GMP aids their compliance with countries' standards for manufacturing and statutory requirements. MTaPS, in collaboration with PQM+, held several meetings with the USAID Mission and SEARO/SEARN to prepare support to implement a pilot online course on GMP for the pharmaceutical industry and regulators in the **Asia Bureau**.

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

INTEROPERABILITY OF PHARMACEUTICAL MANAGEMENT INFORMATION SYSTEMS THAT LINK PATIENTS AND PRODUCTS

MTaPS/**Bangladesh's** regional-based technical advisors maintain close collaboration with district- and sub-district-level managers in providing technical support, such as troubleshooting and virtual orientation to keep all electronic-based information systems functional and ensure patient and stock data exchanges for decision making. For example, the interoperable information systems eTB Manager and the Directorate General of Health Services' (DGHS) electronic logistics management information system (eLMIS); the electronic Asset Management System (eAMS); and the Directorate General of Family Planning's (DGFP) eLMIS and the COVID-19 commodities reporting system were kept functioning through MTaPS' remote support. Patient-related data from eTB manager were imported to the DHIS 2 platform and shared with respective decision makers at DGHS and NTP for review and action. In addition, MTaPS/Bangladesh incorporated the latest requirements, including integrated reporting forms into e-TB Manager and DHIS 2, to continuously ensure interoperability between the two systems. The new updates will ensure that updated information on TB treatment and outcomes is properly recorded, analyzed, and used for appropriate decision making.

Furthermore, through the support of MTaPS, adding a feature of COVID-19 commodity reporting system into the existing electronic supply chain management portal (SCMP) (https://scmpbd.org/index.php/covid-19-dashboard) without creating a separate information system and utilizing existing common features, helped MOHFW to quickly introduce and implement the COVID-19 commodity dashboard at health facility, district, and central warehouses. Currently, 97% of facilities are reporting COVID-19 commodity stock status (figure 1).

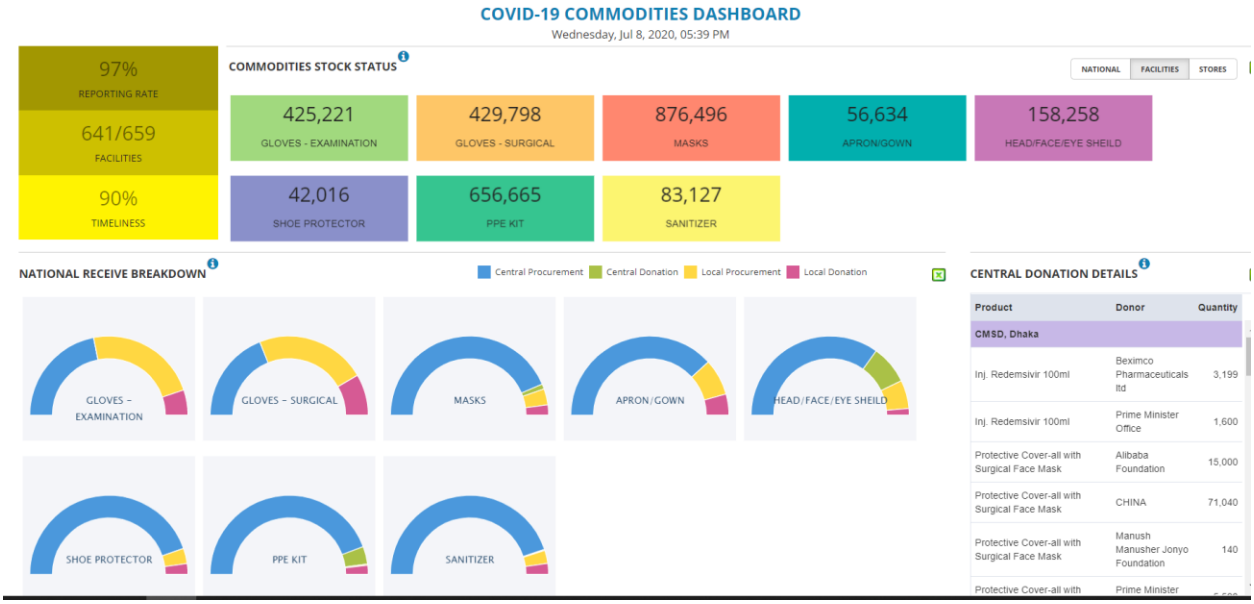


Figure 1: Bangladesh MOHFW SCMP with COVID-19 commodity dashboard

To facilitate data visibility and analysis for decision making in the **Philippines,** MTaPS identified strengths, weaknesses, and prospects of existing data collection and reporting systems for TB and FP commodities (i.e., Pharmaceutical Management Information System [PMIS] and NTP's Integrated TB Information System). MTaPS organized a series of meetings and presented to the DOH's Pharmaceutical Division (PD) and National TB Program (NTP) observations on the different PSCM data channels and possible opportunities to enhance features of PMIS. These interim measures aim to improve the quantification and distribution practices of DOH until end-to-end eLMIS is established. In **Bangladesh**, MTaPS supported the enhancement of the eLMIS dashboard for MNCH commodities with the addition of more data features, including early warning systems for immediate interventions to prevent stock disruptions.

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

In **Bangladesh**, MTaPS supported DGFP in analyzing stock information for FP commodities in which the consumption trend was found to be decreasing, mainly due to the COVID-19 pandemic, from January to April 2020. The analysis initiated further investigation on FP commodity availability, however, further analysis of the data showed that the supply of FP and MNCH products has significantly improved from 44% at sub-districts in April to 86% in May 2020; the stock-out rate at service delivery points was reported to be less than 2% since January 2020. The analysis conducted informed an intervention to engage district-level managers and guide them to continue FP services during the COVID-19 pandemic.

In **Rwanda** and **Mozambique**, MTaPS supported the countries' abilities to improve medicine safety reporting to detect adverse events using pharmacovigilance monitoring system (PViMS), a web-based tool for monitoring the safety of medicines. MTaPS/**Rwanda** assisted the MOH in analyzing data for 26,125 clients on ARVs to inform the transition of patients from one regimen to another, which improves tolerance, efficacy, and adherence. The analysis helped identify 88.3% of patients found to be eligible for switching and, among them, 56% transitioned to the optimized regimen. MTaPS/**Mozambique** worked with the National Directorate of Pharmacy (DNF) to optimize PViMS data collection forms. To commence implementation this quarter, MTaPS, in coordination with DNF and HIV program, held a three-day virtual training of trainers on the PViMS to support the rollout.

In **Nepal**, MTaPS is providing technical assistance to the Department of Drug Administration (DDA) to strengthen its electronic regulatory management information system (MIS) by identifying the most suitable IT solution through mapping the DDA's divisional workflows, such as registration, and comparing the fit of current and expansion needs to existing solutions. MTaPS carried out an MIS and IT infrastructure feasibility study to evaluate usability and user satisfaction with the DDA's current MIS, the Drug Administration Management System (DAMS). The findings from the feasibility study will inform the development of detail systems and user requirements, which will ultimately inform the decision to select the appropriate solution by the DDA.

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

IMPLEMENTATION OF EVIDENCE-BASED MEDICINE STRATEGIES AND PHARMACY BENEFIT PROGRAMS

MTaPS, under the **Cross Bureau** portfolio, presented a draft of the health technologies assessment (HTA) roadmap to USAID for comments and subsequent finalizing. Prior to submission to USAID, MTaPS received feedback from 12 global HTA experts, who were positive about the value the roadmap brings to HTA implementation in LMICs. The previously planned dissemination, feedback, and capacity-building workshop on the HTA roadmap was canceled because of the global COVID-19 pandemic. An online launch that will target HTA practitioners, policy makers, health and pharmaco-economists, and technical assistance partners is planned for next quarter.

As part of the global learning agenda, MTaPS is developing a series of microlearning seminars to raise awareness and promote understanding of strengthening the pharmaceutical system for women's and children's health outcomes. During this quarter, MTaPS finalized content for three videos, the third of which was on financing pharmaceuticals and medical products for maternal, newborn, and child health.

The MTaPS/**Asia Bureau** portfolio finalized its mapping and analysis of pharmaceutical benefits coverage in 12 countries. The draft report outlines four major ways in which the analyzed countries define service and pharmaceutical benefits under their different coverage arrangements and found that relatively few arrangements used explicitly defined pharmaceutical benefit packages that identify and quantify the use of drugs by beneficiary populations, create legal entitlements to that package, and outline financing arrangements for included drugs.

The MTaPS/Asia Bureau portfolio completed a review of resources on defining pharmaceutical benefits coverage and summarized these guidelines in a short brief. The brief outlines a high-level, six-step process countries can use for articulating pharmaceutical benefits, from defining priorities and approach to establishing a plan for routine revisions of benefits. MTaPS/Asia Bureau portfolio also completed a draft report providing tailored guidance to build countries' capacity to use the One Health tool for pharmaceutical benefit package costing, which was shared with USAID.

INCREASED EFFICIENCY OF PHARMACEUTICAL RESOURCE ALLOCATION AND USE

MTaPS/**Philippines** continued to support the DOH in operationalizing HTA with specific inputs on price negotiation. The Philippines is planning to place the functions of the Central Price Negotiation Board (PNB) within the overall HTA process. It is expected that the nomination of technologies, particularly single source and patent products resulting from cost-benefit analysis and other HTA committee assessments, will be subject to price negotiation by PNB. MTaPS continued to participate and facilitate a technical working group for national price negotiation and provide inputs on aligning the HTA process to strategic procurement initiatives.

MTaPS/Asia Bureau conducted a literature search on pricing policies and is collecting country policy documents to inform its analysis. Ultimately, the report will help countries pharmaceutical pricing in the region and improving pricing transparency.

As part of collaboration with the USAID Local Health System Sustainability Project to improve availability and accuracy of pharmaceutical expenditure data, MTaPS/**Burkina Faso** developed a scope of work, pending USAID approval, to hire a consultant for data collection next quarter.

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

INCREASED AVAILABILITY OF ESSENTIAL MEDICINES AND OTHER HEALTH TECHNOLOGIES

Continuous availability of safe, effective, quality-assured, and affordable medicines and health technologies is critical for effective health outcomes. Implementing regular demand planning and monitoring and efficient and coordinated procurement with optimized warehousing, inventory management, and delivery systems, supported by reliable data with strong local institutional and individual capacity, are pillars to ensure availability.

In this quarter, MTaPS/**Philippines** supported the DOH's procurement and supply chain management (PSCM) team in taking the lead in establishing the PSCM sub-components of province- and city-wide health systems at local government units (LGUs). Because of DOH's revisited strategy to "catalyze the transformation of city-wide and province-wide health systems," MTaPS assisted DOH with developing a proposed PSCM performance management plan that will be aligned to the Civil Service Commission's performance governance system. The proposed performance management plan comprises updated inputs on the PSCM team's strategic commitments, roadmap of key activities, and key performance indicators to measure performance and milestones. While adoption of the plan is currently on hold because of the COVID-19 pandemic situation, MTaPS will explore the possibility of reviewing and approving the plan virtually. Once formally approved, the performance management plan will be tied to office and division performance commitment reports for performance accountability and transparency.

In addition, MTaPS **Philippines** conducted a series of virtual meetings with the PSCM team to discuss contingency planning during the COVID-19 emergency situation and associated roles the PSCM team could play, particularly on continuing the team's role in strengthening PSCM stewardship, performance oversight, policy making, and building the capacity of LGUs, both during emergency and regular situations, to ensure access to medical products at health facilities.

In **Bangladesh**, the regular meeting of PSM governance and coordination mechanism, which MTaPS supports, also known as the Procurement and Logistics Management Cell, is postponed because of COVID-19. It has been agreed to hold the meeting next quarter to discuss regular PSM issues and required actions in the context of COVID-19. Also, in this quarter, MTaPS assisted the Directorate General of Health Services (DGHS) in completing the review of the list of medical and surgical requisites for vetting. Once the vetting is conducted next quarter through a stakeholders' workshop, it will be finalized, approved, and shared with health facilities to improve local procurement processes. In addition, MTaPS assisted in the final review and printing of the standard list of equipment for hospitals with up to 500 beds. The list will facilitate creation of a table of organization and equipment (TOE), which should be completed in the next quarter. The TOE will be used to streamline procurement planning by hospitals and line directors.

Following the previous quarter's support in assessing the PSCM and PV workforce, MTaPS **Philippines** continued assisting the DOH in designing the workforce development plan, which determines the required number and distribution of required skill sets, staff positions, and associated roles. In this quarter, MTaPS helped gather second-round inputs through individual online surveys and virtual focus group discussions. The Human Resource for Supply Chain Tool developed by People that Deliver were used to gather further inputs and design the workforce development plan. The plan will help DOH put in place and professionalize the necessary PSCM and PV workforce to ensure sustainable individual and institutional capacity.

In mobilizing resources, in this quarter, MTaPS **Bangladesh** assisted the National Tuberculosis Control Program (NTP) in processing two critical orders for TB medicines, which will help the country

transition from injectable to fully oral medications for multidrug-resistant (second line) TB treatment, starting last quarter of 2020. Based on the information and recent decisions to transition, the Global Fund, the Global Drug Facility, and the regional Green Light Committee reviewed the quantification and orders submitted in the last quarter. Technical queries from the organizations mentioned above were provided to NTP for clarification; MTaPS assisted NTP in responding to queries and the order processed has advanced to the next steps. For first-line TB medicines, MTaPS also assisted NTP by reviewing and analyzing the quantification against availability of funding through the government. The revised quantification result from which orders were generated progressed to the next procurement step. In the **Philippines**, MTaPS drafted options for transitioning TB second-line drug procurement from the Global Fund-funded arrangement to the DOH supply chain. The option analysis included requirements for different steps, such as funding source, procurement mechanism, warehousing, distribution, and human resources, which will be further discussed with the NTP, Global Fund principal recipient, and other stakeholders to analyze strengths and weaknesses of each approach for informed decision making on the implementation. This options analysis will support DOH and NTP in smoothly and sustainably transitioning the second-line drug supply chain and, at the same time, ensuring uninterrupted access to these medicines.

In **Philippines**, MTaPS continued supporting the DOH health technology assessment (HTA) initiatives by participating in the National Price Negotiation Board (PNB) TWG meetings and provided inputs in aligning the HTA processes with the strategic procurement initiatives, such as the framework agreement and pooled procurement mechanisms. In addition, MTaPS facilitated discussions between DOH's Pharmacy Division and Procurement Services to finalize the draft of the procurement framework agreement, incorporating pooled procurement mechanisms proposed by the Pharmacy Division. As per the latest draft administrative order, the procurement framework agreement and pooled procurement mechanism has a provision for LGUs and the private sector to participate voluntarily. The alignment of the PNB function with the framework agreement and pooled procurement flexibility is expected to address the procurement bottleneck and affordability at the central and LGUs levels.

In addition, because of commodity delivery challenges brought on by the COVID-19 pandemic, MTaPS Philippines supported DOH in developing a directory of alternative logistics service providers and shared it with DOH and USAID implementing partners to make use of voluntary and alternative transportation arrangements to continue essential TB and FP services. The list of interested logistics service providers and suppliers was posted on the DOH website to continuously update the directory.

In **Bangladesh**, MTaPS facilitated two virtual meetings with DGFP and other stakeholders to share and discuss the stock status of FP commodities in which the consumption trend was found to be decreasing because of the COVID-19 pandemic from January to April 2020. Because of the stock analysis presented in these meetings, DGFP initiated further virtual meetings with divisions and district-level managers to guide them on how to continue FP services in the COVID-19 pandemic situation. Although the consumption pattern was decreasing, the supply of contraceptives and other maternal and child health medicines from the central and regional warehouses to sub-district stores has significantly improved. In May 2020, 86% (418/488) of sub-districts received supplies compared to 44% (213/488) in April 2020. The stock-out rate at service delivery points is reported to be less than 0.2% since January 2020.

IMPROVED PATIENT-CENTERED PHARMACEUTICAL CARE

MTaPS technical activities to improve patient-centered pharmaceutical care this quarter can be found in detail in the GHSA section and objective 5/AMR activities in this report.

IMPROVED PATIENT SAFETY AND THERAPEUTIC EFFECTIVENESS

MTaPS continues working to monitor patient safety using the Pharmacovigilance Monitoring System (PViMS) in the **Philippines, Mozambique,** and **Rwanda**. In the Philippines, MTaPS upgraded PViMS to improve active drug surveillance system for TB and other medicines and began orienting users this quarter, which will continue next quarter with users in the Department of Health, Food and Drug Administration, Pharmaceutical Department, and other TB stakeholders. MTaPS/Rwanda assisted the MOH in analyzing data for 26,125 clients on antiretrovirals (ARVs) to inform the transition of patients from one regimen to another, which improves tolerance, efficacy, and adherence. The analysis helped identify 88.3% of patients found to be eligible for switching and, among them, 56% transitioned to the optimized regimen. MTaPS/Mozambique coordinated with the National Directorate of Pharmacy (DNF) and HIV program, to hold a three-day virtual training of trainers on the use of PViMS for medicine safety-data entry and analysis to further implement the tool at the provincial level. The necessary IT equipment, such as tablets installed with PViMS, were provided to nine health facilities, which are currently enrolling patients for safety monitoring.

Rwanda is also using PViMS to monitor Ebola vaccination, in addition to antiretroviral treatment, and this quarter 27 adverse events were reported after Ebola vaccination of 32,634 individuals who received the first dose and 3 adverse events after vaccination of 22,465 on the second dose. In addition, 95 women are reported to be pregnant after vaccination. This analysis helps make safety monitoring decisions on individuals and the entire Ebola vaccination program.

BETTER CONTAINMENT OF ANTIMICROBIAL RESISTANCE AND INFECTION PREVENTION AND CONTROL

In **Jordan** and **Mozambique**, MTaPS provides technical assistance in antimicrobial stewardship through drug and therapeutics committees (DTCs). This quarter, MTaPS/Jordan is assisted the Antimicrobial Stewardship (AMS) Technical Central Committee and DTCs at the two hospitals that MTaPS is supporting. MTaPS developed a terms of reference elicited feedback on the drafts from two AMS Central Committee members and DTC members at the two hospitals that will pilot AMS programs. MTaPS expects hospital pharmacists to lead the change process, and the goal is to empower them by including them in the development of AMS program implementation plans and by building their technical capacity as warranted. MTaPS/Mozambique used input from last quarter's AMS workshop for Department of Hospital Pharmacy staff and DTC/AMS committee members from eight selected hospitals to revise the AMS training packages. MTaPS also produced reports of the training of trainers' workshop and facility-level workshop. The reports' findings and recommendations will enable the Department of Hospital Pharmacy to promote effective AMS programs in health care facilities.

In addition to AMR-related activities under Objective 5, MTaPS supports GHSA/AMR activities in **Bangladesh**, **Burkina Faso, Cameroon, Côte d'Ivoire, DRC, Ethiopia, Kenya, Mali, Senegal, Tanzania,** and **Uganda**, focusing on promoting AMS, infection prevention coordination, and multisectoral coordination. For more details GHSA portfolio progress, refer to the GHSA section of this report.

PROGRESS BY REGIONAL BUREAU PORTFOLIO

ASIA REGIONAL BUREAU

OBJECTIVE 1: CAPACITY TO CONDUCT AND USE HEALTH TECHNOLOGY ASSESSMENT TO SUPPORT INSTITUTIONALIZING TRANSPARENT AND EVIDENCE-BASED DECISION MAKING IN ASIA REGIONAL COUNTRIES STRENGTHENED

Activity 1.1.1: Adapt and pilot a roadmap for HTA implementation in three Asia regional countries

MTaPS made final edits to the roadmap for institutionalizing health technology assessment (HTA) in low- and middle-income countries (LMICs). The roadmap is titled," A Practical Guide for Systematic Priority Setting and HTA Introduction," and reflects the pragmatic and action-oriented approach of the document. It provides a stepwise approach for advancing HTA, including setting the agenda, formulating policy, potential options for implementation, and evaluating impact. In the previous quarter, an advanced, comprehensive version of the draft roadmap was prepared based on feedback from 11 global and regional HTA experts. The updated document was sent for a final review to the 11 experts and the USAID COR team. The responses from 9 of the 11 experts were unanimously positive with minor editorial comments; most of the reviewers agreed to be listed as contributors to the roadmap. These endorsements have created additional goodwill to expand the reach and utility of the roadmap by the global stakeholders involved in building capacity and advancing HTA.

Feedback from HTA roadmap

"I may use this document to teach a class in 2021."
– HTA expert and assistant professor at a leading medical university in the United States

"This is a very comprehensive and well-organized document, and I hope that it receives enthusiastic and broad uptake from the HTA community. I suspect people will find it immensely helpful."
– HTA expert at a not-for-profit health economics and HTA institution in Canada

Because of the COVID-19 pandemic, a previously planned dissemination, feedback, and capacity-building workshop in the region has been switched to a virtual format for this project year. In lieu of the regional workshop, the MTaPS team will be gathering feedback from Asia region experts (e.g., HTA practitioners, policy makers, WHO regional experts, etc.) remotely. To disseminate and gather further input for the roadmap, the team has developed an open-ended online survey similar in format to a key informant interview with the objective of getting substantive feedback from Asian regional experts. MTaPS may follow up the online survey with phone-based in-depth interviews. MTaPS has also developed a companion executive summary for the roadmap, which provides an overview of the stepwise approach and of the roadmap. This will also be disseminated with the online survey. Key stakeholders, such as policy makers, usually have limited time, therefore the executive summary will serve as a capsule introduction of the roadmap. The executive summary is likely to generate quicker interest for additional action, further uptake by key stakeholders, and advancement of HTA in the region. Given the variability in HTA advancement across countries in the region, this exercise will provide updates on progress, recent experiences, and practical considerations from various settings in the region. The survey and contextualization of the roadmap is targeted for completion in the next quarter.

Regional and global stakeholders will be invited to an interactive virtual meeting for the launch of the roadmap next quarter.

OBJECTIVE 2: CAPACITY TO DEFINE AND COST EVIDENCE-BASED PHARMACEUTICAL COVERAGE AND PROMOTE TRANSPARENCY IN PHARMACEUTICAL PRICING TO IMPROVE VALUE IN PURCHASING IN ASIA REGIONAL COUNTRIES STRENGTHENED

Activity 2.1.1: Support the development of national processes for defining a pharmaceutical benefits package and the size and scope of coverage

MTaPS finalized its mapping and analysis of pharmaceutical benefits coverage in 12 countries within the Asia region. The draft report outlines four major ways in which the analyzed countries define service and pharmaceutical benefits under their different coverage arrangements; these modalities include: 1) using an EML to define pharmaceutical procurement/distribution; 2) defining drug benefits as any drug medically indicated for included services; 3) having a de facto, explicit pharmaceutical benefits package based on a national formulary/EML; and 4) defining an explicit pharmaceutical benefits package. Most coverage arrangements used the first three modalities; relatively few arrangements used explicitly defined pharmaceutical benefits packages that identify and quantify the use of drugs by beneficiary populations, create legal entitlements to that package, and outline financing arrangements for the included drugs. Further additions and revisions to the report were completed at the end of this quarter. The report will be shared with USAID in July 2020 to help countries within the region understand the modalities by which pharmaceutical benefits may be defined to ultimately increase service coverage and access to pharmaceuticals to the population.

MTaPS leveraged the work on mapping pharmaceutical benefits coverage within the region to also complete a review of resources on defining pharmaceutical benefits coverage and summarized these guidelines in a short brief. The first report helps show the scope of pharmaceutical benefits in coverage arrangements in countries within the region; the brief outlines a high-level, six-step process countries may use for articulating pharmaceutical benefits, from defining priorities and approach to establishing a plan for routinely revising benefits. The brief also highlights country examples from the Asia region, including Thailand's HTA process, Indonesia's national formulary, and the Philippines' PhilHealth's Z benefits package. The brief is under review by MTaPS management and will be shared with USAID in the next quarter.

Activity 2.1.2: Build capacity for costing pharmaceutical benefits coverage

MTaPS completed a draft report providing tailored guidance to build countries' capacity to use the One Health tool for pharmaceutical benefit package costing. The draft report is being reviewed by the MTaPS management team. The guidance will better enable stakeholders to: 1) use the One Health Tool to derive coverage targets, costing, and impact information; 2) estimate the cost of a pharmaceutical benefit package; 3) assess government contributions and the financial/fiscal gaps to afford the overall drugs needed in the country; and 4) facilitate discussions regarding priority setting for drugs within each disease group and adjustments to each pharmaceutical package under each disease, intervention, or health condition.

Activity 2.2.1: Promote transparency in pricing through review of regional processes and pricing policies

MTaPS continued research on pricing policies and techniques used within Asian countries. A search of academic literature on pricing policies yielded 1,033 academic articles for review, which, once screened, left only 29 relevant to the topic at hand. The review highlighted the multiple pricing policies and techniques that exist in the region to control cost. Securing country policy documents to inform the analysis has been a challenge and led to some delays. The team is working to identify these policies and gain perspectives from key informants to finalize the first draft by next quarter. The report will help countries understand the ways in which other countries within the region approach pharmaceutical pricing and approaches to improving transparency in pricing.

Activity 2.3.1: Support development of a standardized process for pharmaceutical expenditure tracking in Asia

MTaPS received concurrence on revisions to activity 2 of the work plan, including addition of activity 2.3 to strengthen capacity for pharmaceutical expenditure tracking in Asia. This quarter, MTaPS kicked off this activity by holding a conference call with partners from the USAID/Indonesian Mission and the USAID Indonesia Health Financing Activity (HFA) Program to discuss pharmaceutical expenditure tracking and how Indonesia's data systems may support such tracking in the future. Given the COVID-19 pandemic, there was consensus to postpone the planned webinar to the end of July to ensure thorough understanding of needs from country stakeholders and to further identify relevant stakeholders to be involved in the webinar.

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

Sub-objective 3.1: Regional/sub-regional medicines regulatory systems in Asia strengthened

MTaPS finalized and submitted the report on mapping initiatives, networks, and stakeholders that support pharmaceutical regulatory system strengthening, including pharmacovigilance in Asia, were identified.

Based on the report, MTaPS developed two concept notes for consideration by the Association of South East Asia Nations (ASEAN) and the South-East Asia Regulatory Network (SEARN) on identified potential areas to support the networks. MTaPS had several meetings and engagements with various stakeholders in Asia, including the USAID-funded Promoting the Quality of Medicines Plus (PQM+) Program, USAID Asia Bureau office, and WHO South East Asia Regional Office (SEARO). These engagements resulted in MTaPS and PQM+ submitting a combined concept note to ASEAN's Pharmaceutical Product Working Group (PPWG) outlining details and specific regulatory system strengthening areas that both programs could support. To formally engage with ASEAN, a virtual meeting was held between the US Department of Commerce, USAID OHS, Asia Bureau, MTaPS and PQM+ to discuss the strategy for providing support to ASEAN PPWG and potential consultation with the US pharmaceutical industry.

MTaPS also had further discussions with SEARN, and it was agreed that MTaPS would support capacity building for pharmaceutical manufacturers and regulators in current good manufacturing practices (cGMP). Support would be offered to develop a curriculum and train pharmaceutical manufacturers from India in cGMP as a pilot in the first phase in collaboration with WHO-Jagadguru Sri Shivarathreeshwara (JSS) University. Subsequently, the capacity development program would be rolled out to other SEARN member states.

MTaPS received approval from the USAID Asia Bureau office to reprogram the funds meant for developing a pharmacovigilance guidance document to support SEARN. Arrangements for the capacity-building activity are currently ongoing, including engagement with the India USAID Mission.

Activity 3.2.1: Develop a how-to manual on managing conflict of interest

The project collaboration agreement with WHO for developing an implementation manual that will support countries in establishing and better implementing policies to manage conflict of interest (COI) for their public sector pharmaceutical committees was approved and signed this quarter. The agreement sets out the roles and joint deliverables for the partnership with WHO headquarters and SEARO. Areas of collaboration with the WHO Collaborating Center for Governance, Transparency, and Accountability in the Pharmaceutical Sector were agreed on. These include the center taking the lead on conducting the targeted literature review as well as contributing to the design of the baseline survey. MTaPS drafted the study protocol, which is being reviewed by WHO and the WHO Collaborating Center. WHO headquarters staff are taking the lead on obtaining ethical clearance/exemption. WHO SEARO is

developing the terms of reference for the consultants that will be recruited to collect data. The WHO Collaborating Center is working on drafting the search strategy for the literature review.

The joint activities planned for this quarter were delayed due to the WHO SEARO staff being engaged in COVID-19 responses in the region. Going forward, MTaPS anticipates longer than usual timelines for obtaining country responses to the survey because of staff engagement in managing COVID-19 responses.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Dissemination and inputs for contextualization of the HTA roadmap from Asia region experts (online dissemination and feedback gathering)	July
Incorporating inputs received from experts on HTA implementation across various settings in the region	August–September
Finalize and disseminate report on pharmaceutical benefits mapping	July-September
Finalize and disseminate brief on defining pharmaceutical benefits packages	July-September
Incorporate feedback from MTaPS management team and finalize and disseminate the report	July-September
Complete research and draft the short report	July-September
Support SEARO/SEARN in capacity building for Indian pharmaceutical manufacturers in cGMP as a pilot; provide technical resource persons to advise on the development of curricula and content for training on cGMP in collaboration with WHO-JSS University	July
Continue engaging with ASEAN and SEARN; continue communication with key persons in ASEAN and SEARO/SEARN to identify other specific activities that MTaPS could support	July-August
Develop a how-to manual on managing COI; finalize the study protocol for IRB approval and obtain ethical approval; develop data collection instruments and conduct the baseline survey; develop literature search strategy and carry out the search	July-September

INTERGOVERNMENTAL AUTHORITY ON DEVELOPMENT (IGAD) AND EAST AFRICAN COMMUNITY (EAC)

IGAD countries

Djibouti
Eritrea
Ethiopia
Kenya
Somalia
South Sudan
Sudan
Uganda

EAC countries

Burundi
Kenya
Rwanda
South Sudan
Tanzania
Uganda

OBJECTIVE 1: IMPROVE PHARMACEUTICAL-SECTOR GOVERNANCE

IGAD 1.1.1: Assist IGAD in establishing and operationalizing governance structures for PV

MTaPS held a virtual meeting with the IGAD secretariat and the Expert Working Group on Pharmacovigilance (EWG-PV) of IGAD member states (with exception of Eritrea) on May 19 and 26 and June 16, 2020, to review progress on implementation in view of COVID-19. The member states agreed to update their plans of activities and review and incorporate new ways of implementing the baseline assessment, considering the impact of COVID-19. The member states noted the challenges posed by COVID-19 on planned activities, which have resulted in delays in implementation due to restrictions on movements and gathering. A virtual approach to implementation of the baseline assessment using focal persons at identified facilities to be trained and then equipped to collect and transmit data to the national PV experts for consolidation and report writing was feasible under the current conditions. However, some members states with unique country situations (internet, staffing, knowledge gaps, weak PV system), e.g., Djibouti, were encouraged to devise other ways to ensure the activity is implemented, including where possible, moving to the border areas to collect data.

During the meetings, it was emphasized that all IGAD cross-border areas were to be included in the baseline assessment to ensure that clear information on the status of their PV system, and therefore needed interventions, is captured for planning. The baseline assessment will inform subsequent activities at the border areas as identified from the report, and hence the need to have focal persons at the border areas participate in data collection to build their knowledge, skills, interest, and capacity on PV. MTaPS followed up with the IGAD member states and continued to offer technical support on updating and reviewing their plans of action and budgets for the baseline assessment.

MTaPS held virtual meetings with the IGAD secretariat on June 8-9, 2020, to review progress on implementing the baseline assessment for the PV system in IGAD member states and to discuss the approach to implementation by member states and the secretariat's support to member states for the assessment. The secretariat agreed to provide guidance to the member states on the implementation approach and communication to the national medicine regulatory authorities (NMRAs) on the objectives and timelines for activities to ensure uniform and standardized implementation.

MTaPS provided technical support to the IGAD secretariat in the drafting, reviewing, and subsequent finalizing and sharing of the EWG-PV meeting report for the workshop held in Machakos, Kenya, March 2-6, 2020. The final report was disseminated by the IGAD member state responsible for rapporteur (Ethiopia) on April 29, 2020.

EAC 1.1.1: Implement the EAC harmonized PV manual and tools to monitor safety and quality of registered medical products and health technologies.

MTaPS engaged the EAC secretariat and the EAC EWG-PV on May 7 through a WebEx call and discussed the:

- Harmonization of the PV curriculum by reviewing a draft technical document developed by MTaPS to guide the harmonization process
- Identification and agreement on standard operating procedures (SOPs) to be harmonized to support implementation of the PV compendium
- Current status of domestication of the PV compendium among EAC partner states

The meeting agreed that partner states should review the developed documents for the PV curriculum and assessment tools for the SOPs and provide feedback for consolidation and further action.

Follow-up meetings to review the draft SOPs and incorporate feedback for the harmonized curriculum were held on May 21 and June 24, 2020. The partner states agreed to have MTaPS provide the technical support required to finalize the harmonization of the draft SOPs and curriculum developed by the partner states to ensure quick adoption and implementation.

MTaPS held several meetings with the EAC lead NMRA in PV (Pharmacy and Poisons Board [PPB] Kenya) to offer technical support on developing draft implementation SOPs to domesticate the harmonized EAC PV compendium and harmonized PV curriculum. MTaPS developed a guidance document for harmonizing the PV curriculum as well as an assessment tool for developing SOPs required to implement the harmonized PV compendium. The document and assessment tools were used to determine the status of implementation of the PV compendium and availability of SOPs in the EAC partner states and to inform the allocation of SOPs to be developed by each partner state.

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

IGAD 2.1.2: Support post-marketing surveillance and PV activities along IGAD cross-border points to promote patient safety

MTaPS held a virtual meeting with the IGAD secretariat and the EWG-PV of IGAD member states (with exception of Eritrea) on May 19 and 26 and June 16, 2020. During the meetings, it was emphasized that all IGAD cross-border areas were to be included in the baseline assessment of PV systems to ensure that clear information on the status of their PV system, and therefore needed interventions, is captured for planning. The baseline assessment will inform subsequent activities at border areas as identified from the report and hence the need to have focal persons at the border areas participate in data collection to build their knowledge, skills, interest, and capacity on PV to promote patient safety at these sites.

MTaPS continued to collaborate with the IGAD secretariat and member states by offering technical support and guidance on implementing the harmonized PV indicator-based assessment and monitoring tool. The support included reviewing country plans and budgets to ensure streamlined implementation of the tool.

IGAD/EAC 2.1.3: Support local manufacturers in IGAD/EAC regions to better comply with regional and national pharmaceutical regulatory standards and requirements

MTaPS advertised for, recruited, and engaged a lead consultant to assess the local pharmaceutical industry on their capacities to adhere to good regulatory practices to ensure sustained availability of critical essential medicines in line with international standards. A meeting with the lead consultant to discuss the inception report and approach for supporting local manufacturers and to agree on timelines and deliverables was held on June 25, 2020.

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

IGAD/EAC 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 engaged the EAC lead NMRA in PV, PPB Kenya, virtually on April 22 and discussed harmonizing the PV curriculum and developing implementation SOPs for the harmonized EAC PV compendium. It was agreed that a survey be conducted among partner states to determine what SOPs they would like harmonized to support implementation of PV compendium. MTaPS helped develop a scoping and assessment tool to be shared with partner states to determine the existing SOPs within the partner states and for their input on which SOPs should be harmonized for the region. The lead country agreed

to spearhead the processes of SOP harmonization and curriculum development with technical support from MTaPS.

MTaPS engaged the EAC lead NMRA in PV, through a WebEx call on April 27, and discussed harmonizing the PV curriculum by reviewing a draft technical document developed by MTaPS to guide the harmonization process. During the meeting it was agreed that MTaPS should continue to offer technical support by comparing the existing in-country curricula in EAC partner states with the WHO PV curriculum and identify gaps and areas that require emphasis under local contexts.

MTaPS held a meeting with the EAC lead NMRA in PV on May 13 and discussed progress harmonizing documents on PV and their development for the EAC region. MTaPS assisted the lead NMRA in reviewing and compiling feedback from partner states on the SOPs from the self-assessment tool, agreeing on the scope of SOPs to be harmonized, and devising a plan for expediting finalization of the documents**.** The feedback on the status of domestication of the harmonized compendium in EAC partner states was also reviewed to inform the next steps on sensitization and dissemination for adoption.

MTaPS held virtual meetings with the EAC secretariat and the EAC partner states on May 7 and 21 and June 24, 2020 and discussed the Development of the Harmonized PV SOPs and Harmonized training curriculum. The training curriculum on PV is to be used to train healthcare workers at cross-border areas in the EAC and IGAD regions to build capacity and enhance patient safety.

MTaPS held virtual meetings with the IGAD secretariat and IGAD member states (with exception of Eritrea) on May 19 and 26 and June 16, 2020, and discussed implementation of the baseline assessment of PV systems in IGAD member states using the Harmonized Indicator-Based PV Assessment and Monitoring Tool adopted from EAC and WHO benchmarking tools. The tool is to be used to collect data from health facilities at IGAD cross-border areas, public health programs, market authorization holders, and the NMRA. The data collected will be consolidated, compiled, and analyzed to assess the current status of PV systems in IGAD member states and develop plans of action and interventions to enhance patient safety, focusing on the cross-border sites.

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATE (2020)
Review and compile country reports for the IGAD PV baseline assessment	July-September
Develop a harmonized EAC and IGAD PV training curriculum and package for training border sites in both IGAD and EAC	July-September
Review and validate compiled country reports into regional report	September
Train PV TOTs at regional level and countries, including border sites	September
Hold sensitization meeting with IGAD cross-border stakeholders	August
Train IGAD border facilities	September

PROGRESS BY COUNTRY

BANGLADESH

MTaPS/Bangladesh focuses on integrated, innovative, and sustainable strategies to strengthen the pharmaceutical system and ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medicines and pharmaceutical services. The program will use both USAID's pharmaceutical systems strengthening approach and the MTaPS approach to contribute to the Government of Bangladesh's fourth Health, Population and Nutrition Sector Program (HPNSP) (2017–2022) objectives and commitment to achieving universal health coverage.

For progress on MTaPS/Bangladesh's COVID-19 activities, click here.

MISSION-FUNDED ACTIVITIES

OBJECTIVE 1: PROCUREMENT AND SUPPLY CHAIN SYSTEMS IMPROVED AND MODERNIZED

The meeting of the Procurement and Logistics Management Cell (PLMC) of the Ministry of Health and Family Welfare (MOHFW) scheduled for this quarter was not held because of the COVID-19 priority for the government. The meeting will be rescheduled for next quarter.

MTaPS completed the review of the list of the Medical and Surgical Requisites (MSR) of the Directorate General of Health Services (DGHS). The list needs to be finalized for vetting through participatory workshops that are expected to be conducted next quarter. Once finalized, the list will contribute to improving the sub-national procurement process performed by health facilities.

MTaPS completed the editorial review and printing of the Standard List of Equipment for Hospitals up to 500 beds and has been working in collaboration with relevant departments of the MOHFW and DGHS to develop a Table of Organization and Equipment (TOE). The collaboration was impacted by COVID-19 and is expected to be completed in the next quarter. The TOE will be used to streamline procurement planning by health facilities and line directors.

During this quarter, MTaPS assisted the National Tuberculosis Control Program (NTP) in processing two critical orders for TB medicines. Bangladesh will be transitioning to fully oral drug-resistant TB treatment regimens in the fourth quarter of 2020. The dosage and regimens adopted in the country have some variations from international recommendation. The Global Fund, the Global Drug Facility, and the regional Green Light Committee reviewed the quantification and orders submitted in the last quarter. The combined review was returned to the country team with several technical queries before proceeding. MTaPS assisted the NTP in preparing the technical responses. The responses were reviewed favorably, and the second-line medicines orders advanced to the next steps.

First-line medicines are procured through government sources. MTaPS provided technical assistance to the NTP on procurement and supply management (PSM) by reviewing the quantification in the context of backlog as well as fund availability. The review had only minimal suggested edits, which demonstrates increased capacity of the NTP PSM team in quantification of TB medicines. The order prepared based on this quantification was accepted and progressed to next steps.

The MTaPS technical team continued communications with Directorate General of Family Planning (DGFP) and provided technical assistance in procurement and supply management activities during this quarter. Due to COVID-19, most of the support was provided through virtual mechanisms following the instructions of the Government of Bangladesh and MTaPS leadership team decisions. MTaPS attended two virtual meetings with the DGFP and other stakeholders to share and discuss the stock status of

contraceptives and the downward consumption trend and to identify a way forward. MTaPS prepared stock analysis reports, including pipeline and consumption trend, and shared them with stakeholders. After these meetings, the DGFP initiated virtual meetings with division- and district-level managers to guide them on how to run the FP program during the pandemic. The DGFP also issued instructional notifications to different level of the program (e.g., all postponed trainings have to be reviewed and virtual training can be arranged if the facility is available, ensuring distribution of contraceptives at last mile delivery, organizing camp for long-term and permanent methods with all COVID-19 precautions). The consumption of FP commodities decreased from March to May 2020 due to the COVID-19 situation and Ramadan (table 1). Trend data are available at https://scmpbd.org/index.php/lmis-report/month-wise-consumption.

Table 1: Consumption trend of family planning commodities

SL#	MONTH 2020	CONDOM	ORAL PILL	INJECTABLE	IUD	IMPLANT
		CONSUMPTION IN MILLIONS (PCS.)	CONSUMPTION IN MILLIONS (CYCLES)	CONSUMPTION IN MILLIONS (VIALS)	CONSUMPTION (PCS.)	CONSUMPTION (SETS)
1	Jan	9.41	6.68	0.91	13,638	32,357
2	Feb	9.19	6.52	0.88	13,649	33,345
3	Mar	8.51	6.27	0.79	10,990	21,579
4	Apr	6.46	5.39	0.64	5,047	1,582
5	May	6.87	5.65	0.66	5,811	2,103

The supply of contraceptives and other maternal and child health (MNCH) medicines from central and regional warehouses to sub-district stores significantly improved. In May 2020, 86% (418/488) of sub-districts received supplies compared to 44% (213/488) in April 2020. The stock-out rate at the service delivery point level is prevailing less than 0.2% since January 2020. Procurement of contraceptive packages for FY 2019–20 has been completed except for implants. Due to several re-tenderings, procurement of 300,000 sets of implants might go in July or August as carry forward.

MTaPS region-based technical advisors are maintaining close liaisons with district- and sub-district-level managers in providing technical support (e.g., troubleshooting, virtual orientation) as and when required to keep all electronic tools (e.g., eTB Manager, DGHS eLMIS, eAMS, DGFP eLMIS, COVID-19 commodities reporting system) functional. They also prepared analytical reports on the available information on contraceptives consumption trends; stock on hand; method-wise stock-out; maternal, newborn, and child health (MNCH) medicines stock; and TB patient registration and export TB patient data into DHIS2 to share with DGHS, DGFP, and NTP officials for their review and further action. Accordingly, managers took few actions (e.g., replenishment of contraceptive supply to maintain adequate stock level), resulting in a stock-out rate below 0.1% at the service delivery point level.

USAID is exploring ways to work with MTaPS to assess peripheral TB store management and its possible integration with the government storage system. A series of discussions took place on this issue. This activity complies with the response from the Technical Review Panel of the Global Fund to the TB grant application of the government and, if adopted, the assessment will be conducted from July to December 2020.

OBJECTIVE 2: PHARMACEUTICAL REGULATORY SYSTEMS STRENGTHENED

Earlier this year, MTaPS facilitated a series of workshops with the Directorate General of Drug Administration (DGDA) and key stakeholders to draft the process of a DGDA action plan based on a five-year strategic plan. During this quarter, MTaPS, in consultation with stakeholders, reviewed the implementation status of the DGDA's five-year strategic plan, identified priority areas for improvement, and prepared a draft action plan in line with the fourth HPNSP of the MOHFW. The document was shared with the DGDA for review. This plan will help to formulate sustainable strategies to achieve the program goal of a strong pharmaceutical system and contribute to the fourth HPNSP (2017–2022) objectives and its commitment to achieving universal health coverage.

MTaPS facilitated workshop with a technical sub-committee (TSC) of the DGDA to evaluate adverse drug events (ADEs) received by the DGDA between January and March 2020, including causality assessment using the WHO-UMC method. MTaPS also helped during the Adverse Drug Reaction Advisory Committee workshop at the DGDA to review the TSC-evaluated ADEs received by the DGDA between July and December 2019. This collective effort will ensure effective classification of ADE reports and evidence-based regulatory decision making on adverse drug reactions to improve patient safety.

Adverse Drug Reaction Advisory Committee (ADRAC) chairman Md. Mahbubur Rahman (DG, DGDA) with the members reviewing the ADEs evaluated by TSC for regulatory decision on patient safety. Photo Credit: Mr. Salim (MTaPS)

MTaPS worked with the pharmacovigilance (PV) focal point and the PV team of the DGDA to conduct a feasibility assessment of using an online platform for workshop programs during the COVID-19 pandemic to improve the current reporting and monitoring systems and awareness for scale up of PV functions in selected sites. The assessment report was shared with the DGDA for review. In addition, MTaPS is exploring a transitory mechanism with direct HR support to the DGDA that encompasses a plan to ensure sustainability in maintaining the VigiFlow system. These initiatives will help increase the amount and quality of reporting and monitoring for evaluation and regulatory decisions on PV.

In compliance with the existing national Drug and Pharmacy Ordinances, MTaPS, in collaboration with the DFID-funded Better Health in Bangladesh Project, incorporated and reviewed the relevant legal provisions and mandate in the inspection and monitoring strategy, which were developed through a workshop with DGDA officials to ensure compliance with the national standards of a model pharmacy and model medicine shops. The implementation of the inspection and monitoring strategy will be focused on collaboration at the operational level between the DGDA and Pharmacy Council of Bangladesh and is expected to promote synergy for control of pharmaceutical retail outlets and foster compliance.

MTaPS conducted a survey on the registration systems of MNCH products using a structured questionnaire focused on the DGDA's legal basis for registration, registration process, staffing, expertise, and cost involved in the regulatory authority. Research on DGDA legal documents, guidelines, and procedures was conducted to understand the scenario. In addition, MTaPS communicated and interviewed local manufacturers of MNCH products and MNCH programs managed by the DGHS and DGDA officials, among other personnel. The survey report is under review. The outcomes of the study will identify the gaps and bottlenecks in the registration process and provide solutions for optimization of not only MNCH products but also other medicines and medical devices.

OBJECTIVE 3: SYSTEMS FOR EVIDENCE-BASED DECISION MAKING INSTITUTIONALIZED

In collaboration with the World Health Organization (WHO), the MTaPS Health Information System team provided technical assistance to design the network architecture of the DGDA and two of its laboratories—the National Control Laboratory and the Drug Testing Laboratory. Through the collaboration, WHO is providing necessary equipment and financial support and MTaPS is providing technical assistance to design and implement a local area network and data center at the respective buildings. The new network and data center will ensure that the DGDA and its laboratories have better connectivity, better and enhanced data storage, and increased data availability and data security.

MTaPS updated the latest TB forms (forms 10, 11, and 12) in e-TB Manager and DHIS2 to ensure interoperability between the systems. The new forms will start to be used for reporting in the next quarter. Integrating the new forms in both systems will ensure that updated information on TB treatment and outcomes is properly recorded, analyzed, and used for appropriate decision making.

A new dashboard and reporting system were developed on the DGHS eLMIS for MNCH commodities, targeting better use of data for decision making. The enhanced system will help the DGHS track expired medicines and stock-outs of any commodities at any level of a health facility, allowing early warning and timely interventions to minimize stock disruptions.

Basic training on e-TB Manager at Khulna Division was postponed after consultation with the NTP due to the COVID-19 pandemic. The MTaPS team is monitoring data quantity and quality virtually and providing technical assistance remotely through cell phones and an online platform.

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

No activity has been done due to the COVID-19 pandemic.

OBJECTIVE 5: PHARMACEUTICAL FINANCIAL RESOURCE ALLOCATION AND USE OPTIMIZED

No activity has been done due to the COVID-19 pandemic.

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATE (2020)
1.1.1: Strengthen revitalized PLMC functions within MOHFW	September
1.1.4: Review and update the list of MSR items, including specification and gender considerations	September
1.2.3: Assist DGHS to implement manual inventory management tools in the remaining 19 districts (print tools; capacity building) By mid-August the printing of manual inventory tools will be completed, and virtual training is planned for the second half of August and September	September
1.2.2: Strengthen procurement and supply management coordination mechanism (DGHS, DGFP, and NTP)	September
1.3.3: Enhance technical capacity of quantification cell within NTP and develop a sustainability plan	August–September
2.1.1: Provide technical assistance to the DGDA for strengthening good review practices (GRP) for medical product registration, including vaccines and biologicals, to contribute to improvement of maturity level in the WHO GBT	August

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATE (2020)
• Course content on GRP (drafting) • Identification and engagement of resources • Provide training on GRP for medical productions, including biologics and vaccines, for DGDA (30 per batch, two-day training) and pharmaceutical companies (40 per batch, one-day training) • Training on updated Pharmadex tool and refresher training on dossier evaluation of generic products for DGDA	
2.1.2: Work with DGDA and other partners to implement the five-year strategic plan (2017–2022) focusing on the action plan for 2020 • Drafting action plan 2020 • Meeting with DGDA and other development partners (PQM); finalize in a workshop with all development partners; activities will be shared by DGDA and all partners	July
2.2.1: Support DGDA to improve the current reporting and monitoring system of adverse drug events using the common platform DHIS2 • Identify interventions to address gaps and explore improvement of digital system of reporting and monitoring (DHIS2 set up and implementation) • Workshop at DGDA	July
2.2.2: Provide technical assistance to DGDA for scaling-up PV program in selected sites • Work with DGDA to identify the means of collaboration to roll out • Readiness assessment of sites • Conduct workshops	September
2.2.3: Provide technical assistance to NTP and DGDA to develop SOPs for manual aDSM recording and reporting	September (will continue next year)
3.1.5: Training on e-TB manager at Khulna Division	July–September
3.1.1: Review and update the product catalog to align with the asset acquisition planning system of MOHFW. This will ensure the product catalog is aligned the next year's asset acquisition planning system	August
3.1.4: Develop the SRS document for dedicated eLMIS for DGHS The SRS will be developed by a consultant and will be the basis of next year's planned development of eLMIS for DGHS	August
3.1.7: Assist DGDA to implement DHIS2 to collect daily activity of drug superintendent as well as adverse drug reaction data	August
4.1.1: Strengthen national-level multisectoral coordination mechanism to facilitate implementation of IPC and AMS of the National Action Plan on AMR objectives	September
4.1.2: Work with CDC/DGHS to establish and support efficient functioning of the IPC and AMS sub-committees under the NTC	September

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

A planned quarterly meeting with government counterparts and other stakeholders was not conducted due to the priority shifting of Communicable Disease Control (CDC), DGHS, and other stakeholders toward containment of COVID-19 pandemic.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

No activity has been done, but MTaPS worked with Infection Prevention and Control (IPC) in response to the COVID-19 pandemic.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Two virtual meetings on development of standard treatment guidelines for common infectious diseases were held with the leadership of CDC and DGHS.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
1.1.1: Help develop and initiate implementation of the M&E framework for the IPC and AMS components of the National Action Plan on AMR Containment 2017–2022	September
1.1.2: Support quarterly joint meetings between the various sectors to support progress in the MSC, IPC, and AMS objectives of the NAP-AMR	September
2.3.1: Assess IPC baseline status in selected facilities using WHO IPC assessment tools	September
3.3.1: Conduct a rapid assessment on AMS baseline status in selected facilities using simple AMS-related checklists from QIS/DGHS, WHO, and other sources	September
3.5.2: Initiate the development of national-level STG and STG app for common infectious diseases by reviewing and drawing from the existing BARA Manush STG app	September

BURKINA FASO

For progress on MTaPS/Burkina Faso's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1.1.1: Provide support to the AMR-TTC to improve its organizational, governance, and practical management capacities

Task 1.1.1.1.e: Support the functioning of the One Health Platform

MTaPS contributed to drafting the ministerial order that defines the roles, composition, and functioning of the One Health Steering Technical Committee, the One Health Technical Secretariat, the One Health Technical Commissions, and the respective ministerial focal points. The ministerial order was endorsed and signed by all ministers involved in the One Health Platform. MTaPS also contributed to developing a roadmap of the platform. These activities will be carried out within one year, during which time the platform will be fully operationalized.

Activity 3.1.1: Provide technical support to the AMR-TTC and stakeholders to develop a national plan to strengthen AMS in the human and animal health sectors

Task 3.1.1.1.b: Develop a national regulatory framework for appropriate use of affordable, quality-assured antimicrobials in the human and animal health sectors as part of the national AMS action plan

Following the antimicrobial stewardship (AMS) rapid assessment, MTaPS, in collaboration with the Ministry of Health (MOH) and Ministry of Animal Resources and Fisheries, drafted the national AMS regulatory framework, considering both the human and animal health sectors. The framework addresses the following three goals:

7) Improving patient outcomes, including reducing infection rates, surgical site infection rates, morbidity, and mortality
8) Improving patient safety and minimizing unintended consequences of antimicrobial use (i.e., reducing antimicrobial consumption without increasing mortality or infection-related readmissions)
9) Reducing antimicrobial resistance (AMR) through prudent use of antimicrobials

Burkina Faso's national policy documents, including the multisectoral action plan for combatting antimicrobial resistance 2017–2020, and other documents served as references. The draft framework is currently under review by the MTaPS home office and colleagues from the Ministries.

Task 3.1.1.2.a: Develop a draft AMS plan

MTaPS, in collaboration with the MOH and Ministry of Animal Resources and Fisheries, is in the process of developing the AMS plan, which will list the activities necessary for improving AMS in the country. With COVID-19 meeting restrictions, MTaPS has initiated the draft AMS plan, which, when completed, will be shared electronically with local counterparts at the relevant ministries and with the MTaPS home office for review and finalization.

Task 3.1.1.3.a: Develop a draft national guideline for the use of antimicrobials in the animal sector

A three-day workshop with seven experts from the Ministry of Animal Resources and Fisheries was originally planned for March 6–8, 2020, to develop national guidelines for the use of antimicrobials in the animal sector. However, due to the COVID-19 situation, the MTaPS team has taken the lead to develop the draft guidelines. The guidelines have been shared with partners from the Ministry of Animal Resources and Fisheries and private-sector stakeholders for review. Preliminary feedback and contributions were received. The guidelines will streamline key areas, including:

- Regulatory framework for the use of antimicrobials
- General principles for rational use of antimicrobials
- Antibiotics of importance for veterinary medicine
- Responsibilities of those involved in implementing rational use of antibiotics
- Guidelines for rational use of antimicrobials in animals

The finalization workshop is planned for July 9–10, 2020, using Google Meet.

Task 3.1.1.4.a: Update the infectious diseases national standard treatment guidelines

The antibiotic prescription guide has been developed by the MOH. This guide maps the most frequent pathogenic bacteria and the most frequent infectious syndromes in Burkina Faso. The development of this guide considered the results of AMR surveillance. The guide is updated every five years and was reviewed in 2020 with participation from MTaPS/Burkina Faso, which contributed to the integration of antibiotics considering the AWaRe classification. The updated guide is now valid for five years (2020–2025).

Task 3.1.1.4.b: In collaboration with National Drug Regulatory Agency (NDRA), print copies of the essential medicines list (EML)

The review process of the EML was conducted by the National Drug Regulatory Agency (NDRA) in collaboration with the World Health Organization. The review and finalization phase, conducted by a committee of experts, was done January 24–February 19, 2020. MTaPS participated in the review and the finalization process of the list. However, due to the COVID-19 pandemic, the list was not printed and disseminated. The plan is to have it printed and disseminated as soon as the COVID-19 situation is over.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.5.1: Support implementation of guidelines and policies at the peripheral level

Task 3.5.1.b: Support the Division of Quality and Patient Safety (DQSS) and the Technical Inspection of Health Services (ITSS) to develop tools to build capacity of DTCs

MTaPS supported the development of the terms of reference for strengthening Drug and Therapeutics Committees (DTCs). This activity was held in Ziniaré in the Central Plateau region May 17–22, 2020. Eleven participants (seven male and four female) from the teaching hospitals of Yalgado, Tengandogo, Bogodogo, and Charles de Gaulle and the NDRA attended the workshop.

Task 3.5.1.c: Establish and build the capacity of DTCs in five facilities (including at least one national teaching hospital, one regional hospital, and one reference center) to oversee implementation of AMS interventions

In addition to the development of the terms of reference, MTaPS supported the MOH to organize a one-day sensitization workshop for hospital Directors General on establishing and having functional DTCs. The meeting was held on June 24, 2020, in Ouagadougou and brought together the 17 Directors General of the health care facilities, the Director of Hospital Pharmaceutics, and health officers to provide greater information on the process. During this meeting, participants were sensitized on the importance of establishing and running a DTC and on how to establish, maintain, and use a DTC. The next step is to use the information from the workshop to move forward in establishing DTCs in all health care facilities that were represented.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Activity 3.1.1: Provide technical support to the AMR-TTC and stakeholders to develop a national plan to strengthen AMS in the human and animal health sectors	
Task 3.1.1.1.b: Develop a national regulatory framework for appropriate use of affordable, quality-assured antimicrobials in the human and animal health sectors as part of the national AMS action plan	July
Task 3.1.1.3.b: Organize a two-day workshop to review and finalize the draft national guidelines for the use of antimicrobials in the animal sector	July
Task 3.1.1.3.c: Organize a one-day workshop to validate the national guidelines for the use of antimicrobials in the animal sector	July
Task 3.1.1.2.a: Develop a national AMS plan that includes both the human and animal sectors	July
Task 3.1.1.4.a: Update the infectious diseases national standard treatment guidelines	July
Task 3.1.1.4.b: In collaboration with NDRA/CEDIM, print copies of the essential medicines list and organize three two-day workshops to disseminate the essentials medicines list	July
Activity 3.5.1: Support implementation of guidelines and policies at the peripheral level	
Task 3.5.1.a: Develop a plan to establish and strengthen Drug and Therapeutics Committees (DTCs) in health facilities in the country	July
Task 3.5.1.b: Support the Division of Quality and Patient Safety (DQSS) and the Technical Inspection of Health Services (ITSS) to develop tools to build capacity of DTCs	July
Task 3.5.1.d: Support the DQSS and the AMR-TTC to conduct a joint four-day induction workshop for selected staff from all five targeted facilities	August

CAMEROON

For progress on MTaPS/Cameroon's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1.1.1: Provide technical and operational support to the AMR Technical Secretariat to improve multisectoral coordination

MTaPS supported the organization of the monthly coordination meeting of the infection prevention and control (IPC) and antimicrobial stewardship (AMS) technical working groups. This meeting was held via WebEx and was convened by MTaPS. There were 10 participants from different departments of the Ministry of Public Health (DPS, DPML, DLMEP, LNSP, DOST) and the Ministry of Environment. During this meeting, participants discussed the formalization of IPC committees in the six selected health facilities that MTaPS will support.

MTaPS also participated in two monthly virtual coordination meetings of USAID implementing partners, chaired by the GHSA focal point at the USAID mission in Cameroon, on April 30 and May 28. Each of these meetings was attended by seven participants. During these meetings, implementation of GHSA activities was presented, as was partners' support for the COVID-19 in-country response.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.1.1: Support the development, validation, and dissemination of IPC guidelines for the human health sector

To strengthen governance on IPC through the development of normative documents, MTaPS supported a workshop for drafting national IPC guidelines. This four-day workshop brought together 13 participants from the DPS, DLMEP, LNSP, DOSTS, and two teaching hospitals, as well as staff from WHO. The draft content was aligned with the WHO recommendations for IPC guidelines. MTaPS plans to support the validation of these guidelines during the last quarter.

Activity 2.2.1: Develop a national training package and strengthen master trainers' capacity to plan and carry out cascaded competency-based training

Following the development of IPC curricula adapted for adult learning, MTaPS supported the Ministry of Public Health to organize a three-day workshop to train 15 master trainers in IPC. This workshop brought together 15 participants from the central (six), regional (two), and facility (seven) levels. Five participants were IPC champions from MTaPS-supported health facilities. The participants were trained using the modules from the national IPC training package with the aid of the facilitator guide. Staff were also introduced to distance learning platforms, such as Moodle and WebEx, that can be used to conduct trainings for health facilities in the regions if more stringent measures are put in place that limit movement and face-to-face meetings in light of the COVID-19 pandemic. The e-learning session was led by a Principal Technical Advisor from MTaPS headquarters.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Provide technical support to the AMR-CCM and stakeholders to develop a national plan to strengthen antimicrobial stewardship in the human and animal health sectors

Sub-Activity: Undertake a situational analysis of stewardship and regulations regarding the management and use of antimicrobials.

Prior to supporting the government to develop a national AMS plan, MTaPS supported the Ministry of Public Health to carry out a situational analysis of policies and regulations regarding the use of antibiotics in the human health sector. To complete the situational analysis in the animal health sector, MTaPS hired

a consultant to support the Ministry of Livestock and Animal Husbandry to conduct the analysis. The situational analysis in the animal health sector is currently being finalized. MTaPS plans to support the organization of a workshop to validate the reports of the analyses of the human and animal health sectors in July.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
MTaPS will support a two-day on-site training of IPC committees in the six selected health facilities.	July
MTaPS will support a workshop to bring together various sectors involved in AMR to validate the AMS situation analysis report.	July
MTaPS will support the development of an AMS national action plan based on the gaps identified in the AMS situation analysis report. This will be done in three steps: a five-day workshop, a three-day validation workshop, and an adoption meeting.	July–September
After the workshop to draft IPC guidelines, MTaPS will support a validation workshop.	August
MTaPS will continue to support the organization of these routine meetings.	August
MTaPS will work with DOSTS to establish/strengthen DTCs in MTaPS-supported health facilities and support DOSTS to develop tools to build capacity of these DTCs.	September

CÔTE D'IVOIRE

For progress on MTaPS/Côte d'Ivoire's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Following the first COVID-19 cases in Côte d'Ivoire, the government implemented social distancing measures to control the spread of the pandemic. As a result, in-person activities by the AMR Multisectoral Coordination Group (AMR-MCG) were suspended. On June 3, 2020, the AMR-MCG decided to resume activities in the field.

Activity 1.1.2: Strengthen the AMR secretariat

Support the National Institute of Public Hygiene (INHP) and the National AMR Secretariat in establishing and building capacity within the AMR, IPC, and AMS technical sub-working groups

MTaPS supported the AMR-TWG in organizing a one-day online meeting on May 14, 2020, with 18 participants from the AMR Secretariat-Observatory on Antimicrobial Resistance in Côte d'Ivoire (ORMICI), Legislation and Regulatory Framework technical working group (TWG), Communication and Trainings TWG, Detection and Surveillance TWG, AMS-TWG, USAID, and CDC. The aim of this stakeholders meeting was to monitor progress on implementing the national action plan (NAP)-AMR. During this meeting, TWGs were asked to present both the completed and planned activities for the coming months. Key highlights included:

- The Legislation and Regulatory Framework TWG has not yet been established. Because of COVID-19, it has not been possible to hold an in-person meeting to establish the group. The participants recommended that the Regulatory Framework TWG organize an online meeting to establish the TWG.
- The Communication and Trainings TWG presented a summary of communication activities conducted since 2019, focusing on WHO's antibiotics week.
- The AMR Detection and Surveillance TWG is working on a guide to detect AMR; the validation workshop, funded by CDC, has been postponed because of COVID-19.
- The AMS-TWG presented a summary of activities implemented, focusing on the ongoing rapid assessment and development of modules to train DTCs.

The AMR Secretariat asked each TWG to develop a detailed TOR, drawing on the AMR Governance Handbook, and improve activity reporting by using the validated template.

On April 9 and April 29, 2020, 13 and 16 participants, respectively, from the AMR National Secretariat-ORMICI, Teaching Hospitals of Treichville, National Laboratory for the Support of Agricultural Development (LANADA), Oceanography Research Center (CRO), World Organization for Animal Health (OIE), Pasteur Institute of Côte d'Ivoire, National Program for the Development of Pharmaceutical Activity (PNDAP), Ivorian Anti-Pollution Center (CIAPOL), professional associations, and the Ivorian Pharmaceutical Regulatory Authority (IPRA) attended the Multisectoral Technical Committee (MTC) 5's online meetings to review progress on implementing MTC 5 activities (for more information, see the AMS section of the report).

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.1.1: Developing a NAP for IPC in human and animal health sectors

Support the AMR Secretariat in conducting a rapid assessment of hygiene and infection prevention and control (HIPC) conditions in animal and human health

MTaPS supported the AMR-TWG in hiring a national consultant to rapidly assess HIPC conditions in the animal health sector. MTaPS helped set up an initial meeting on April 23, 2020, through an online platform, that was attended by the hired consultant, AMR-TWG members, MTC 4, and MTaPS. This was an opportunity for the consultant to present the overall scope of his work, as well as a detailed plan of activities, methodology, and expected deliverables. Participants asked about the feasibility of field visits in the context of COVID-19 and the leadership role of the Directorate of Veterinary Services (DSV). It was decided that a mission order would be given to the consultant for travel and that information letters would be sent to the heads of veterinary services at the sites to facilitate field work, in compliance with barrier measures. The logistics for the assessment were also discussed. After the meeting, all necessary documents for the field visits and the terms of reference were submitted for approval.

Data collection took place from May 3 to 31, 2020, in 10 localities (Yamoussoukro, Bouaké, Bouaflé, Daloa, Duekoué, Man, San-Pedro, Cocody, Yopougon, and Grand-Bassam). The consultant visited 10 veterinary clinics, 8 slaughterhouses, and 20 poultry farms. Data analysis has been completed, and the preliminary report is being prepared. As a next step, MTaPS will support the AMR-TWG in organizing an online meeting for July 3, 2020, to validate the assessment report.

MTaPS supported the AMR-TWG in conducting the national-level IPC assessment using the WHO IPCAT2. The assessment was conducted at Hotel Belle Côte in Abidjan, during a one-day meeting held on June 12, 2020. The meeting was attended by 13 senior staff from the MOH, Pasteur Institute of Côte d'Ivoire, WHO, CDC, USAID, and MTaPS. The assessment was carried out by a team composed of three people from WHO, USAID, and CDC, in the presence of the deputy director general of health in charge of public hygiene. Facilitation was provided by the AMR-TWG (the AMR national focal point), MTC 4 (one person), and MTaPS (two people). The evaluators administered the IPCAT2 to the directorates and central structures of the MOH in charge of IPC (Directorate of Hospital Medicine and Proximity and the Directorate of Public Health and Environment Health). The assessment focused on the six main components of IPC:

1) IPC programs
2) Guidelines on IPC
3) Education and training on IPC
4) Surveillance of health care-associated infections (HCAI)
5) Multimodal strategies
6) Regular monitoring and evaluation of IPC practices and reporting of results

Stakeholders discussed the results (figure 1) in a plenary session on the same day and recommendations were made. The main recommendations were to:

- Establish an IPC program as recommended by WHO
- Establish a clear link with the different sectors
- Incorporate the most frequent HCAIs into existing guidelines
- Introduce IPC in the initial training of health professionals
- Set up the HCAI surveillance system in conjunction with the AMR surveillance system (including HBV, HCV, HIV/AIDS)
- Set up a system of regular reporting and evaluation of multimodal strategies in health facilities, including reporting results

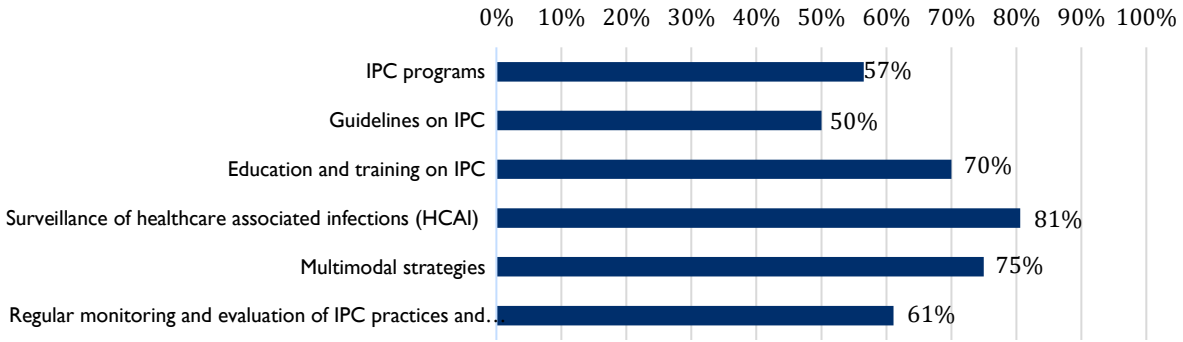


Figure 1. IPCAT assessment results (score for each IPC area in the IPCAT 2)

Activity 2.5.2: Strengthen capacity of health care providers to implement IPC and AMS standards

Provide technical assistance to the AMR Secretariat, INHP, and Directorate of Pharmacy, Medicines, and Laboratories to strengthen the capacity of health care professionals

Following development of the macro- and micro-designs of the trainer's guide, the local experts (members of MTC 4) continued to finalize the guide and the participants' handbook on hygiene and IPC in animal health, in collaboration with the DSV. These documents will be finalized by the end of July 2020.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Improve the rational use of antimicrobials in the human and animal health sectors

MTaPS supported the AMR-TWG in organizing two online meetings of AMS MTC 5 on April 9 and 29, 2020. The aim of the April 9 meeting (with 13 participants) was to:

- Monitor progress on the rapid assessment of AMS activities, policies, and regulatory framework
- Monitor progress made on the development of training materials for DTCs
- Discuss strategies that will help the AMS-TWG continue activity implementation while adhering to COVID-19 measures issued by the government and the MCG
- Discuss how the AMS-TWG can contribute to COVID-19 preparedness and response

The committee agreed to hold online coordination meetings to continue implementing AMS activities and using Google Drive to draft the AMS policy, guidelines, and plan, in collaboration with consultants. To validate the drafts, the preferred option is a face-to-face meeting, but the group agreed to validate deliverables virtually if a face-to-face meeting is not feasible by end of June 2020. The AMS TWG members are encouraged to contribute to the national COVID-19 response by integrating committees and taskforces in the field based on their competencies and areas of expertise.

The meeting held on April 29, 2020, focused on monitoring the progress on developing training materials for DTCs.

The key highlights of this meeting included development of 6 of the 10 modules planned by MTC 5 members. The four remaining modules will follow later, once they are ready. The MTC 5 established three thematic groups to review and harmonize the slides. The committee also discussed antimicrobial use and consumption during the COVID-19 pandemic. Hydroxychloroquine and chloroquine stock-outs occurred a few days after the first cases were reported in the country. The committee began discussion on a possible study looking at the use of antimicrobials during the COVID-19 outbreak in Côte d'Ivoire, with possible support from MTaPS. An expert group was established to write a study protocol.

Support the AMR Secretariat in conducting a rapid situational analysis of structures in charge of antimicrobial use and regulation in the human and animal sectors by developing survey tools, recruiting consultants as needed, collecting, and analyzing data

MTaPS supported the AMR-TWG in recruiting two consultants in March 2020 to rapidly assess AMS policies, activities, and the regulatory framework and to update the national AMS plan based on the findings of the rapid assessment. The methodology was to conduct a desk review of documentation, followed by interviews to fill in any missing information. After the two consultants completed the desk review of the assessment, the preliminary report was reviewed internally by MTaPS and the AMR Secretariat–ORMICI and the DSV before the validation workshop was organized. Following these reviews, the two consultants integrated the feedback. The draft final report was then shared internally with MTaPS at the MSH head office and with members of the AMR-TWG.

MTaPS supported the AMR-TWG in organizing the validation workshop of the rapid assessment report on June 15-16, 2020 with 21 participants from the AMR National Secretariat-ORMICI, Teaching Hospitals of Treichville, LANADA, CRO, OIE, Pasteur Institute of Côte d'Ivoire, PNDAP, CIAPOL, health professional associations, and IPRA. During the two days, the stakeholders reviewed the draft report and provided comments and feedback to finalize the draft. The report was validated on June 16. As a next step, the consultants will proofread and finalize the report (deadline: June 24, 2020); it will be read again by the AMS–TWG on June 26, 2020 and printed by MTaPS by mid-July 2020.

Support the AMR-TWG in using the results of the AMS situational analysis and WHO-led assessment tool on the use of antimicrobials to draft a national AMS plan in the human and animal health sectors that covers national and facility levels

Following validation of the rapid assessment, MTaPS supported the AMR-TWG in using the results of the assessment to draft national AMS guidelines for health care settings, revise the national AMS policy and plan, and then validate the updated AMS plan at a stakeholder meeting that began June 29, 2020. This meeting brought together 20 participants from the AMR National Secretariat-ORMICI, LANADA, CRO, OIE, Pasteur Institute of Côte d'Ivoire, PNDAP, CIAPOL, health professional associations, and IPRA. The objectives of this workshop were to: (i) review supporting documents for drafting the guidelines and revising the policy and the national antimicrobial stewardship plan; (ii) review the working document provided by the consultants for each deliverable; (iii) integrate comments and inputs from participants; (iv) format each document; (v) validate the national AMS plan; and (vi) validate the next steps. This workshop ends on July 3, 2020. After this meeting, MTaPS will help the AMR-TWG organize a validation workshop for the AMS policy and guidelines.

Activity 3.5.1: Establishing and/or strengthening the capacities of DTC members

On February 27, 2020, MTC 5 validated the steps for developing materials to be used to train DTC members in health facilities. Eleven topics were identified and allocated to MTC 5 members who will be responsible for developing a slide deck (macro- and micro-design, development of facilitators' guide and participants' manual, and validation). To continue this process, the AMS-TWG held a meeting on April 29, 2020, with 16 participants to monitor progress in developing training materials.

To date, the 10 planned modules have been developed by MTC 5 members. MTC 5 established three thematic groups to review and harmonize the slides developed by members of the AMS-TWG.

In the next step, MTaPS will support the AMR-TWG in organizing workshops to validate the sessions before the macro- and micro-design workshop and development and validation of the facilitators' guide and participants' manual. This work will build on existing training materials developed by MTaPS HQ and by other countries.

Once ready, the materials will be used to train DTC members in September 2020 in the two targeted health facilities, the University Teaching Hospitals of Bouake and Cocody.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Activity 1.1.1: Finalize and validate the NAP-AMR	
MCG will use printed copies of the NAP-AMR for advocacy to ministries for official endorsement	July-August
Activity 1.1.2: Strengthen the AMR secretariat	
One quarterly meeting of the MCG	August
One meeting of IPC-TWG and one meeting of AMS-TWG	July 16, September
Activity 2.1.1: Developing a NAP for IPC in human and animal health sectors	
Hold an online meeting through WebEx to validate report of the rapid assessment of HIPC conditions in the animal health sector	July 3
Hold three, three-day workshops in Jacqueville to validate: 1) IPC guidelines in the animal health sector 2) The national IPC plan in the human health sector 3) The national IPC plan in the animal health sector	July 13-15 July 20-22 July 27-29
Activity 2.5.2: Strengthen capacity of health care providers to implement IPC and AMS standards	
Hold a five-day TOT workshop in Dabou on IPC in the animal health sector for10 participants	August 10-15
Hold a three-day training workshop on IPC in the human health sector, attended by 20 participants from the University Teaching Hospital of Cocody	August 12-14
Hold a three-day training workshop on IPC in the human health sector, attended by 20 participants from the University Teaching Hospital of Bouake	August 24-26
Hold a three-day training workshop in Bouake on IPC in the animal health sector, attended by 20 participants from the antirabic center in Cocody and the veterinary clinic in Bouake	August 27-29
Activity 3.1.1: Improve the rational use of antimicrobials in the human and animal health sectors	
Hold a five-day workshop to develop/update the national AMS plan, guidelines, and policy	June 29-July 2
Hold a five-day workshop to develop/update the national AMS plan, guidelines, and policy for the human and animal health sectors	June 29-July 2
Hold a one-day meeting to validate the updated AMS plan with participants from the human, animal, and environmental sectors	July 3
Hold a three-day meeting to validate the updated AMS policy and guidelines with participants from the human, animal, and environmental sectors; the validated documents will be used to train and disseminated to DTCs in targeted health facilities	July 8-10
Activity 3.5.1: Establish and/or strengthen capacities of members of DTCs	
Organize a workshop to develop and validate training materials; the validated materials will be used to train DTC members in health facilities	July 20-24

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Hold two competency-based training workshops to train DTC members on AMS in Abidjan and Bouake	August 25- 28

DEMOCRATIC REPUBLIC OF CONGO

GLOBAL HEALTH SECURITY AGENDA ACTIVITIES

The COVID-19 pandemic continues to spread throughout the country. Kinshasa remains the epicenter, but the pandemic has spread to 14 provinces.

As a good paradigm of program mutualization between the Global Health Security Agenda (GHSA) and COVID-19 programs, MTaPS supported the Ministry of Health (MOH) through the health care division of the General Directorate for the Organization and Management of Health Services (DGOGSS) to train members of infection prevention and control (IPC) committees to strengthen IPC interventions in three hospitals in Kinshasa (University of Kinshasa Teaching Hospital, Saint Joseph Hospital, and Monkole Hospital). These three hospitals are among the selected COVID-19 centers in DRC and thus, the IPC training organized under GHSA IPC interventions helped equip health care workers with IPC knowledge and competencies to fight COVID-19. A total of 94 members (50 females and 44 males) were trained.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1.1.1: Provide technical support to the AMR technical working group to improve IPC and AMS coordination

MTaPS is supporting the DPM to ensure that multisectoral coordination (MSC) on antimicrobial resistance (AMR) is successful and effective. To date, MSC activities have been limited to the quarterly MSC coordination meetings, but during the last meeting it was recommended that MSC activities be extended to field visits; this will allow for greater understanding of the field challenges linked to the use and consumption of antimicrobials and addressing some of these challenges by recommending corrective measures. These field visits are also an opportunity to increase awareness of AMR and the use and consumption of antimicrobials in the three sectors (human, animal, and vegetal).

During this quarter, MTaPS supported the Drug Regulatory Authority (DRA) and the AMR technical working group (TWG) to start preparing for upcoming multisectoral field support visits to animal clinics and agropastoral institutions in Kinshasa province. The aim of the visits is to learn more about the use of antimicrobials in the animal and environmental sectors, identify bottlenecks that hinder the appropriate use of antimicrobials, and provide recommendations.

To this end, two preparatory meetings were held on May 22 (teleconference) and May 29 (in-person), with representation from all three sectors. During these meetings, the data collection tool was developed and the institutions to be visited were identified. Four institutions were selected—two in the animal sector and two in the environmental sector. Given the lockdown of Gombe health zone, where most of these health institutions are located, the visits have been scheduled to take place after the end of lockdown in July 2020.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Support the drafting of a national strategy or plan to strengthen AMS

Activity 3.1.1a: Conduct a rapid assessment of stewardship policies and regulations governing the management of antimicrobials in the human health sector, including mapping stakeholders involved in AMS work

During this quarter, MTaPS hired a local consultant for short-term technical assistance to support the rapid assessment of stewardship policies and regulations governing the management and utilization of antimicrobials in the human and animal health sectors, including mapping stakeholders involved in antimicrobial stewardship (AMS) work.

Between May 20 and June 24, 2020, the consultant, in collaboration with the DRA, adapted the assessment and interviewed key informants from the human and animal health sectors. The first draft of the report was submitted to the MTaPS technical team in the region and the Home Office for technical review before it was finalized.

MTaPS/DRC staff, the consultant, the focal point of the animal sector, and the technical secretariat of the MSC finalized the mapping of stakeholders involved in the fight against AMR. The mapping report was then shared with the MTaPS technical team in the region and the home office for additional technical review before the final version is produced.

***Activity 3.1.1b**: In collaboration with WHO, conduct a rapid assessment of antimicrobial use and consumption in the human health sector*

The MTaPS and WHO teams organized a meeting with the WHO technical team (Geneva and Brazzaville) to discuss the methodology and design of this assessment. It was agreed that the study will be conducted in accordance with the WHO protocol; therefore, the scope of the assessment will be limited to the economic and quantitative use and consumption of antimicrobials expressed in Defined Daily Dose/ACT or other economic units. The WHO team shared the study tool with the MTaPS team, and a training of trainers on the use of the tool and a rapid assessment are scheduled for July 2020.

Following recommendations from this preparatory meeting, the MTaPS and WHO local teams developed the terms of reference for the study. The sources of data have been identified and include regional distribution centers, the DRA, the central procurement units (Bureau de Coordination des Achats de la FEDECAME), and private import suppliers. Data collection will start after the training of data managers in early July 2020.

Activity 3.1.2: Integrate the WHO AWaRe classification into the revised EML and review, revise, and update the infectious disease component of the standard treatment guidelines as needed in the human health sector

Following the introduction of the Access, Watch, and Reserve (AWaRe) classification concept to the MOH and other key stakeholders, MTaPS, in collaboration with WHO, organized a one-day virtual training session where members of the DRA were trained and introduced to the AWaRe categorization methods and processes.

MTaPS has identified microbiologists and related experts with whom the team will collaborate for the purpose of this activity to determine the AMR profile of the country.

The terms of reference for the revision of the national essential medicines list (EML) were also developed and validated by the DPM. The revision process is scheduled to start in July 2020 and is expected to be completed by the beginning of August 2020. The next steps will include the use of related findings and the WHO model to categorize antimicrobials under the AWaRe classification.

Activity 3.5.1: Establish/strengthen DTCs to oversee implementation of AMS and IPC interventions

MTaPS completed AMR sensitizations in three hospitals in Kinshasa (the University of Kinshasa Teaching Hospital, Monkole Hospital, and Saint Joseph Hospital). A total of 200 health care workers were involved in the sensitization activities.

In addition, MTaPS finalized the development of the DTC training modules in collaboration with the University of Kinshasa's National Pharmacovigilance Center and started preparation for DTC trainings. A first preparatory meeting took place in each of the three hospitals, and members of the DTC and IPC committee have been identified. In light of the COVID-19 pandemic, it was agreed that trainings will begin with the IPC refresher training, especially for Saint Joseph Hospital committee members.

In collaboration with the DGOGSS, MTaPS conducted the IPC refresher training of IPC committee members between June 13 and 25. This training was conducted at the University of Kinshasa Teaching Hospital, Monkole Hospital, and Saint Joseph Hospital. A total of 94 heath care workers (50 females and

44 males) were trained on IPC. This will be followed by the DTC training before the establishment of DTCs and IPC committees in the three hospitals.

COLLABORATION AND SYNERGY WITH OTHER GHSA OR USAID PROGRAMS

During the quarter, the DRC Red Cross expressed the need for MTaPS to provide technical assistance to continuously monitor, support, and supervise IPC committees in 21 Red Cross-supported health facilities in Kinshasa and Kongo Central provinces. MTaPS and the DRC Red Cross discussed the continuous quality improvement (CQI) approach that is planned for implementation to continuously support and monitor the effectiveness of these IPC committees.

During this quarter, MTaPS continued working with the DRC Red Cross to further discuss the implementation of the CQI package model for IPC, which includes supervision and monitoring and evaluation of 21 Red Cross health facilities in Kinshasa and Kongo Central provinces. To this end, a meeting was organized to discuss the baseline data collection tool and monitoring methods. MTaPS will support the Red Cross to implement supervision/coaching and a mentoring strategy and to develop indicators for monitoring the effectiveness of these committees.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Provide technical support to the AMR-TWG	
Conduct field support visits with a multisectoral team to selected veterinary clinics and agropastoral institutions in Kinshasa province	July
Organize the MSC quarterly meeting	July
Organize and support a two-day meeting for each committee to develop its work plan	July
Conduct an AMS action plan	
Use the findings of the AMS assessment to draft an AMS action plan in collaboration with all stakeholders	July
Finalize the recruitment process for a consultant	July
In collaboration with WHO, conduct a rapid assessment of antimicrobial use and consumption	
In collaboration with WHO, organize a training of trainers on the use of the assessment tool and conduct a practice session using the assessment tool	July
Finalize the recruitment process for a local consultant	July
Integrate the WHO AWaRe classification into the revised EML	
In collaboration with microbiologists and related experts, support the DPM to collect and analyze antimicrobial resistance data and determine the AMR profile of the country	July
Use the related findings and the WHO model to categorize antimicrobials under Access, Watch, and Reserve groups	July
In collaboration with WHO and UNICEF, support the DPM to hold a two-week workshop to revise the EML with AWaRe classification	July

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATE (2020)
Establish/strengthen DTCs to oversee implementation of AMS and IPC interventions	
Start the training sessions in the three selected health facilities	July
Establish three DTCs in Kinshasa	July
Provide technical assistance to support Red Cross-supported IPC committees in 21 health facilities	
Compare the baseline assessment tool used by the Red Cross with the WHO IPCAT tool and identify and fill any gaps	July
Organize a preparatory meeting for IPC CQI training for seven health facilities in Kinshasa	July
Develop indicators for monitoring the effectiveness of IPC committees	July

MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

SUMMARY OF ACTIVITIES THIS QUARTER

After the scoping visits conducted January 12–24, 2020, in Nord Kivu and Ituri provinces, MTaPS finalized the MNCH work plan, which was submitted to USAID on February 28, 2020.

The approval process for the MNCH work plan is under way. The second draft of the work plan was submitted on May 27, 2020, taking into consideration USAID's review and feedback. A meeting between USAID Washington (including the COR team), the USAID local mission, and the MTaPS team was held on May 28, 2020, to discuss questions raised by the USAID team. The final review by the USAID team is under way, and the approval of the work plan is awaited. To lay the groundwork for the work plan implementation phase, the MTaPS team worked to identify activities that MTaPS envisions prioritizing in the coming months. These priority activities were communicated to the USAID team for interim/provisional approval as the final review process is ongoing.

Additionally, during this quarter, MTaPS conducted a survey on the registration of MNCH products in DRC as part of an MTaPS core MNCH portfolio activity. This survey aims to identify challenges, bottlenecks, and barriers in the registration process; propose and recommend solutions and strategies to eliminate or reduce those barriers; and improve the registration process for MNCH products by the DRC Drug Regulatory Authority (DRA). The activity in the DRC MNCH work plan will build on this mapping.

A summary report will be compiled by July 2020 and shared with the USAID Mission and the DRA, which will feed into a global technical brief on the registration process with recommendations to improve access to MNCH medicines and medical devices.

To set the groundwork for project implementation, the MTaPS provincial staff in Nord Kivu and Ituri provinces held introductory meetings with their respective Provincial Health Divisions (DPS). During these meetings, MTaPS was introduced and the areas of intervention and the criteria for the selection of health zones to be supported during the first year were discussed. Those criteria include issues related to security, the presence of other partners supporting MNCH activities, and accessibility. The selection process will also consider local USAID Mission guidance.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Finalize the report of MNCH commodity registration processes survey to map the barriers and constraints to take appropriate actions to improve availability of and accessibility to MNCH commodities	July
Begin implementation of planned activities as per the approved work plan, starting with the four priority activities: • Assist DRA to strengthen medicine registration procedures and update the directory of market-authorized products • Improve the function of the provincial technical working groups on medicines in Nord Kivu and Ituri • Assist DPS and health zones in strengthening the paper-based data collection system to improve availability, quality, visibility, and use of logistics data • Support DPS in disseminating updated MNCH treatment protocols and related job aids to health facilities	TBD

ETHIOPIA

For progress on MTaPS/Ethiopia's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1.2.1: Support PMED to organize effective multisectoral coordination through regular meetings of AMR stakeholders, including animal health and environmental protection

During the quarter, MTaPS technically supported the National AMR Secretariat at Pharmaceutical and Medical Equipment Directorate (PMED)/MOH to conduct a virtual meeting (on Zoom) of the National AMR Advisory Committee (NAMRAC) on May 26, 2020; 32 committee members and invited guests from stakeholder organizations attended, of whom 3 were female. The main agenda items included discussing NAMRAC's contribution to national efforts on COVID-19 and reviewing the draft concept note on revising the NAP AMR. In addition, there were global and national updates on COVID-19; COVID-19 and AMR (considerations); how COVID-19 is affecting food systems, food security, and AMR; and revising the NAP AMR and the national strategy.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.3.2: Monitor IPC improvement in selected health care facilities using IPCAF

MTaPS had planned to conduct direct technical support to MTaPS-supported hospitals through face-to-face supportive supervision and mentorship. However, because of COVID-19, the activity was not conducted as planned. Instead, remote/virtual consultations were provided. IPC focal persons from eight health facilities were consulted on how to establish and strengthen IPC committees, establish monitoring mechanisms to improve IPC, and link IPC activities with continuous quality improvement programs and how to meet the IPC standards recommended by WHO using the eight core components of the IPC program at the heath-facility level.

This quarter, MTaPS provided technical and financial support to the MOH to develop a national IPC program implementation monitoring and evaluation tool for health facilities as part of continued support on IPC. MTaPS designed the tool to address IPC program implementation based on WHO guidelines on the eight core components of an IPC program at the health-facility level. It is adopted from the IPCAF tool, and the recommended IPC practices are based on the revised national IPC guidelines. During this period, MTaPS, in collaboration with MOH, organized a consultative workshop to validate the draft tool. IPC experts from Government of Ethiopia stakeholders (MOH, Addis Ababa City Administration Health Bureau, and referral hospitals) and partners (WHO and CDC) were involved in reviewing and validating the draft tool. The feedback obtained from the IPC experts was incorporated, and the final tool was produced and shared with MOH. Once endorsed by the Ministry, the standard tool will be used by the MOH, regional health bureaus, and other USAID implementing partners to regularly monitor implementation of IPC activities at health facilities.

MTaPS had provided technical and financial support to PMED/MOH in developing a national SOP for local production of ABHR at the health facility-level and printed 1,000 copies of it that were distributed to health facilities throughout the country in October 2019. The need for the ABHR SOP has substantially increased since the onset of COVID-19. Considering the demand for the SOP, MTaPS supported printing an additional 3,000 copies for distribution to designated hospitals and isolation centers with the aim of ensuring the quality, efficacy, and safety of ABHR solutions.

Activity 2.5.1: Scale up IPC guideline/action plan design and implementation in health facilities

During the quarter, MTaPS supported the MOH in reviewing and printing draft copies of the national IPC guidelines. During the month, permission was granted from Jhpiego to use their IPC-related resource in the revised national IPC guidelines. The information from Jhpiego was incorporated by the MOH in the revised national IPC guidelines and the document was sent to MTaPS headquarters for further technical review and editorial work. After the review, MTaPS will facilitate the printing and distribution of the national IPC guidelines to health facilities for implementation.

Similarly, facility-specific IPC action plans for 16 MTaPS-supported hospitals were reviewed and the observed gaps were summarized using a template in line with the IPCAF self-assessment requirement.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Strengthen federal and regional health bureaus and coordination platforms to define, coordinate, and implement AMS activities

MTaPS supported revising the 2014 national essential medicines list (EML), as recommended by WHO's access, watch, and reserve (AWaRe) categorization, to improve prescribing and use of antimicrobials. To update it in line with global and national developments, the TWG held a workshop in March 2020 to draft the revision. As part of the revision process, the TWG organized another review workshop to enrich the draft EML; the workshop was conducted May 22 to June 2, 2020, in Addis Ababa. Two core groups, each composed of eight experts and TWG members (physicians and pharmacists), were assigned to comment on the draft. A total of 32 experts and consultants (of whom 10 were female) from the TWG, selected universities and hospitals, and development partners attended the event.

Accordingly, the first draft of the EML was developed based on pharmaco-therapeutic classification and incorporating the AWaRe classification of antibiotics. MTaPS provided technical assistance as a member of one of the core groups that reviewed the list of anti-infective medicines and supported the entire process, both technically and financially. The draft EML will be further enriched and validated through consultations with a larger group of stakeholders.

Activity 3.1.1a: Support updating STGs to reflect AWaRe categorizations of antibiotics and promote their appropriate use

MTaPS, in collaboration with PMED, conducted the kick-off meeting on April 16, 2020, to revise the national standard treatment guidelines (STGs). Consultants recruited by MTaPS will do the revision. The aim of this meeting was to introduce the consultants to government stakeholders and discuss the timeline for deliverables and the process of STG revision. Furthermore, the team of consultants held an additional meeting with the director general of MOH's Medical Services and chair of the NAMR AC on April 22, 2020, to discuss the revision process. The consultant team is composed of two physicians and a clinical pharmacist who will be the lead coordinators of the activity. In addition, the team will engage experts from different clinical specialties to review and validate the STG. Emphasis will be given to adopting AWaRe categorization of antibiotics to support implementation of AMS programs. Revision of the guidelines will be completed by late July; they are expected to be widely used by health facilities and others.

Activity 3.2.1: Build the capacity of journalists and civil society groups (including the Ethiopian Pharmaceutical Association) to raise awareness of AMR initiatives and issues

In the quarter, MTaPS collaborated with PMED to prepare a training manual on AMR for journalists. In November 2019, journalists from different media outlets were oriented on different aspects of AMR. At the time, the lack of a structured training guide on AMR for media professionals was identified as a major gap. A training manual that addresses the identified gaps has now been prepared by MTaPS and

PMED. The draft training manual has been shared with relevant stakeholders for review and comments. The manual will be finalized and printed in the coming quarter.

In addition, MTaPS collaborated with MOH/PMED to prepare a draft AMR training course for health care professionals. A five-day workshop was conducted May 22-27, 2020 at Yekatit; 12 medical college training center and 8 professionals (all males) drawn from MOH, St. Peter's Specialized Hospital, MTaPS, and pharmaceutical supply management participated in the workshop. The preparation process follows an instructional design approach that includes identifying performance problems in AMR; determining learning objectives; performing audience analysis; defining topics for the course; identifying knowledge, skills, and attitude competencies; and selecting instructional strategies for each topic. By the end of the workshop, a participant's guide was drafted and is ready for circulation to stakeholders for technical review.

MTaPS collaborated with MOH/PMED to conduct a situational assessment to develop a multisectoral AMR behavioral change communication strategy. The rationale for developing this strategy is the lack of an evidence-based approach to engage health care providers and the public by identifying key behavioral barriers in antimicrobial use and developing tailored interventions that promote useful behaviors to avert emergence of AMR. A consultant was hired by MTaPS to conduct a situational assessment using a qualitative method through key informant interviews. Stakeholders involved in the interviews includes MOH, the Ministry of Agriculture, professional associations, public and private media representatives, the Inter-Religious Council of Ethiopia, community organizations, prescribers, and dispensers. Key behavior problems identified from the assessment include excessive prescribing of broad-spectrum antimicrobials, loyalty to specific brands, not establishing an end-point in veterinary treatment, self-medication (human and veterinary) by the community, dispensing antimicrobials without prescription, and not completing the course of prescribed medication. Following this situational assessment, a comprehensive behavior change communication (BCC) strategy will be designed to address the identified gaps.

Activity 3.5.1: Support AMS implementation in health facilities

MTaPS prepared a drug use evaluation data collection and analysis tool in consultation with St. Peter and St. Paul Millennium Medical College Hospitals. The tool was developed to initiate prospective audit and feedback interventions using continuous quality improvement approaches. The drug use evaluation tool will help gather baseline drug use information on a specific antibiotic, followed by prospective audit after 8-12 weeks of intervention and feedback to improve appropriate antimicrobial use.

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATE (2020)
Support PMED in organizing effective multisectoral coordination through regular meetings of AMR stakeholders, including animal health and environmental protection	Aug
Monitor IPC in selected health care facilities using IPCAF; finalize use the national IPC program implementation M&E tool	July–Sep
Scale up IPC guideline/action plan design and implementation in health facilities; facilitate printing and distribution of the national IPC guideline to health facilities for implementation	July–Aug
Support revision of the national EML to incorporate AWaRe groupings; enrich and validate EML through consultations with large audiences	Aug
Support updating STGs that reflect AWaRe categorization of antibiotics and promote their appropriate use; complete revision of the guideline and disseminate widely to health facilities and others	Aug–Sep
Build capacity of journalists and civil society groups (including the Ethiopian Pharmaceutical Association) to raise awareness of AMR initiatives and issues; finalize journalist training manual on AMR; design a comprehensive BCC strategy	July–Sep
Support AMS practice implementation in health facilities	July–Sep
Provide various trainings, such as screening of travelers at points of entry, standard precautions, managing sudden influxes of patients, transmission-based precautions, and waste management using existing training packages for COVID-19, including e-learning	July–Sep
Adapt/draft regulatory support documentation for implementation of COVID-19 response based on WHO COVID-19 guidance	July–Sep

JORDAN

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

Due to the advent of COVID-19, MTaPS adjusted its year 2 annual work plan, taking into consideration national health priorities and Jordan USAID Mission guidance.

MTaPS prioritized activities that could be carried out through remote coordination with Antimicrobial Stewardship (AMS) Technical Central Committee and Drug and Therapeutics Committee (DTC) members at the two selected hospitals in preparation for implementation of the AMS programs expected in next year's work plan. Activities related to multisectoral coordination (MSC) through strengthening the capacity of the national steering committee (SC) for implementation of the National Action Plan on Antimicrobial Resistance (NAP-AMR) were postponed to year 3 as they require extensive interaction and collaboration with the Ministry of Health (MOH) and Communicable Diseases Directorate, which have been engaged with COVID-19 response and not available for meetings or remote contact exchange on matters other than COVID-19. It will delay the possibility of the MOH activating the NAP-AMR SC within the coming months.

During this quarter, MTaPS continued regular remote communication with the AMS central committee focal point. As requested by the focal point, MTaPS provided support to develop core documents for AMS program implementation at the hospitals. Based on internationally recognized standards adjusted to fit the context of Jordan's health care sectors, the MTaPS team provided draft terms of reference for the facility-level AMS committee and checklist of essential health care facility core elements for the AMS program. Two members of the AMS Central Committee, including the focal point, provided their input on these documents and agreed to move forward for necessary approval of the Central Committee.

The above-mentioned documents were also shared with members of the DTC at the selected hospitals to pilot the AMS program implementation. Their feedback and input will be discussed through virtual meetings. Hospital pharmacists are expected to lead the change process at the facility level, and MTaPS' vision is to empower them by engagement in AMS program implementation plan development and by providing the necessary technical capacity building.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Continue virtual coordinating with the AMS Central Committee and DTCs and have the technical documents officially approved and disseminated to MOH hospitals (particularly the two selected hospitals)	July–Sep
Draft the AMS program implementation plan in collaboration with the AMS Central Committee and DTCs	July–Sep

KENYA

For progress on MTaPS/Kenya's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON ANTIMICROBIAL RESISTANCE (AMR)

Activity 1.1.1: Strengthen the capacity of the National AMS Interagency Committee (NASIC) as a leadership, governance, and oversight body for One Health implementation in Kenya

Resources on AMR

Information, education, and communication resources were distributed to Kisumu and Nyeri County Health Departments and to MTaPS-supported health care facilities. The resources included AMR policies and posters on rational use of antibiotics.

Monitoring and evaluation (M&E) framework for AMR national action plan (NAP)

MTaPS held virtual meetings with the national AMR secretariat leads (human and animal health) and the M&E consultant developing the AMR NAP M&E framework. Consensus on the approach was generated during the meetings, and a draft framework developed. Review of the draft is ongoing.

Mapping stakeholders involved in AMR work

The AMR stakeholders' matrix was updated during the quarter and is an ongoing activity. The matrix enables the AMR secretariat to better coordinate partner efforts to avoid duplicating activities and leveraging resources.

NASIC's IPC and AMS technical working groups (TWGs)

MTaPS supported the quarterly national IPC advisory committee (NIPCAC) virtual meeting held on May 18, 2020. The NIPCAC has the IPC mandate at the national level to revise or make recommendations for revising the National IPC and Control Guidelines for Health Care Services in Kenya, which should be reviewed every four years.

MTaPS, in collaboration, with the national AMR secretariat, held the third review meeting on the IPC strategic plan and IPC policy on June 24, 2020, which was attended by eight (five female, three male) TWG members. The team reviewed the documents during a virtual meeting pending editing and finalization.

Building the capacity of the AMR secretariat, MTaPS-supported counties, and health facilities on M&E, documentation, and strategic communication

MTaPS, in collaboration with USAID, organized a training session for MTaPS counterparts in Nyeri and Kisumu Counties and the Ministry of Health (MOH) on photography and videography for over 50 attendees. The virtual training facilitated by USAID Kenya and East Africa and Management Systems International Project aimed to build the capacity of the attendees on strategic communication, information sharing, and "telling the story" of IPC and AMS. The training equipped participants with knowledge and skills to systematically measure and assess IPC/AMS activities and results while documenting the processes to track outcomes.

RESULT AREA 2: INFECTION PREVENTION AND MANAGEMENT (IPC)

Photo credit: George Okumu, Chulaimbo County Hospital, Kenya

Activity 2.2.1 - Technical assistance to develop a continuing professional development (CPD) and relicensure-linked in-service IPC training course for delivery through professional associations

MTaPS, in collaboration with the National Nurses Association of Kenya (NNAK), the national AMR secretariat, MOH, and the taskforce committee, developed a training needs assessment questionnaire to circulate to members of relevant professional associations and regulation bodies, i.e., NNAK, the Pharmaceutical Society of Kenya (PSK), Association of Kenya Medical Laboratory Scientific Officers, the Nursing Council of Kenya, and Kenya Clinical Officers Association. The data collected will be analyzed and the information used to design and deliver a training course that meets the specific needs of the trainees within the professional associations. The program has already started to receive feedback from members of the association, and final completion of the activity is targeted for next quarter.

Activity 2.5.1 - Support for county, sub-county, and facility-level IPC activit

Nyeri

> *Because of the infection prevention and control training that I underwent through supported by MTaPS, I had the courage to be in the frontline at Jaramogi Oginga Odinga Teaching and Referral Hospital managing the COVID-19 cases in Kisumu. Everyone is at risk, let's continue being champions of IPC, stay safe, and observe the new normal.* —George Okumu, IPC Coordinator, Chulaimbo Sub-County Hospital

MTaPS supported and provided technical assistance during county IPC advisory committee (CIPCAC)-led support supervision visits in eight MTaPS-supported facilities conducted between May 4-8, 2020. The supportive supervision included facility follow-up on IPC to asses if standards were being met, goals accomplished, and activities performed according to action plans and to provide guidance on aspects that needed improvement. The findings of these activities included establishment of IPC committees in all eight facilities (with appointment letters and terms of reference [TOR] issued to the committee members) and availability of hand hygiene materials (alcohol hand rub sanitizers, soap, and hand washing sinks) in all eight facilities. Challenges observed included lack of waste disposal mechanisms in two (25%) facilities; screening for severe acute respiratory illness was available but inconsistent in most facilities. All facilities did not have a waste management plan; only one facility (13%) had an occupational safety and health (OSH) program that needed strengthening. Following these findings, feedback and sensitization were given to the IPC committees and the hospital health management teams for correction. Follow-up with the facilities is ongoing.

MTaPS distributed IPC posters on hand washing, alcohol-based rub technique, donning and doffing personal protective equipment (PPE), and the five steps of hand hygiene to all eight GHSA MTaPS-supported health facilities in Nyeri County to support them scale-up compliance to enable behavior change and increase compliance with IPC standards and guidelines.

MTaPS, in collaboration with CIPCAC, held a virtual IPC meeting with the IPC committees in Karatina Sub-County Hospital during their monthly committee meeting held on June 3, 2020, to review progress on implementing facility work plans.

MTaPS continued to do follow-ups on implementation of IPC activities in health care facilities in Nyeri County.

Kisumu

MTaPS supported and provided technical assistance during two-day orientation workshops targeting IPC committees in eight MTaPS-supported facilities in Kisumu County; 87 members (58 female, 29 male) were trained. MTaPS continues to use a multimodal improvement strategy that includes advocating for facility/county-led actions on specific measures and promoting improvement and best practices in IPC.

MTaPS supported and provided technical assistance during CIPCAC-led support supervision visits in eight MTaPS-supported facilities between April 29 and May 6, 2020. The facility follow-ups included mentorships and assessing if standards were being met, goals accomplished, and activities performed according to action plans and to provide guidance on aspects that needed improvement. The findings of these activities included establishment of IPC committees in all facilities with appointment letters and TOR issued to the committee members and availability of hand hygiene facilities, i.e., alcohol hand rub sanitizers, soap, hand washing sinks. Challenges observed included lack of waste disposal mechanisms. No facilities had a waste management nor formal OSH programs. Following these findings, feedback and sensitization was given to the IPC committee and the hospital health management teams for correction. Follow-up with the facilities is ongoing.

MTaPS distributed IPC posters on hand washing, alcohol-based rub technique, donning and doffing PPE, and the five steps of hand hygiene to all eight GHSA MTaPS-supported facilities to support them in scaling up compliance to IPC standards and guidelines.

MTaPS continued to do follow-ups on implementing IPC activities in health care facilities in Kisumu County.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1 - Support the development and implementation of national AMS guidelines

Copies of the national AMS guidelines for health care settings in Kenya were printed but have not yet been disseminated. MOH has yet to confirm an appropriate date for the launch after which dissemination will take place. Both hard and electronic copies will be distributed countrywide because health care workers in some remote parts of Kenya may not have access to an internet connection.

Activity 3.1.2 - Support revision of the Kenya essential medicines list (KEML) and classify EML antibiotics into access, watch, and reserve (AWaRe) categories

MTaPS distributed 40 hard copies of the printed KEML 2019 booklet to MOH managers and key stakeholders. Distribution of soft copies is ongoing through various platforms, i.e., professional associations and relevant forums. Additional copies will be disseminated to the counties countrywide. The revised KEML 2019 is available and can be downloaded from MOH website: www.health.go.ke

MTaPS began reviewing the Pharmacy and Poisons Board's (PPB) draft guidelines for scheduling and rescheduling medicines and health technologies in Kenya. The goal of these guidelines is to regulate control and access of medicines, medical devices, and technologies to optimize quality and safety in accordance with the laws of Kenya. MTaPS is offering the PPB technical assistance in scheduling (categorizing) and restricting use of certain medicines, including antimicrobials, and aligning them with the AWaRe categorization as outlined in the KEML 2019. This scheduling exercise will weed out unnecessary antibiotics and is a sustainable effort that will help strengthen the regulatory environment for antimicrobial availability and use.

Activity 3.2.1 - Support the University of Nairobi/School of Pharmacy (UON/SOP) to reform the pre-service curriculum to integrate AMS-related topics of practical importance

MTaPS, in collaboration with the AMS team at the UON/SOP, reviewed the draft AMS pre-service curriculum. The curriculum has five modules: introduction to AMR; appropriate use of antimicrobial

agents; IPC; diagnostic stewardship, surveillance, and ethics; leadership communication and governance. The draft curriculum and a trainer's guide are to be finalized next quarter.

Activity 3.2.2 - Technical assistance to develop a CPD and relicensure-linked in-service AMS training course for delivery through professional associations

MTaPS, in collaboration with the PSK and representatives of various health professional associations, continued to receive feedback from peer reviewers on the draft in-service AMS course content. The draft course content and trainers guide are to be finalized next quarter.

Activity 3.5.1 - Support to counties, sub-counties, and facility-level AMS activities

Kisumu

MTaPS supported and provided technical assistance during AMS work plan follow-up and mentorship site visits in eight MTaPS-supported health care facilities and one community pharmacy between April 29 and May 6, 2020. The site visits revealed that most facilities had established MTCs and AMS governance structures and were at the initial stages of implementing their work plans. Some of the activities in the work plans included streamlining antibiotic use in outpatient departments through retrospective prescription audits with feedback to prescribers; restricting prescribing of third-line antibiotics; and development of a hospital's medicine formulary. The MTC and AMS teams were encouraged to have regular meetings and attend to their work plans despite COVID-19 interruptions.

MTaPS continued to do follow-ups on the implementation of MTCs and AMS activities at health care facilities in Kisumu County on a weekly basis. These follow-ups were done via e-mail and phone calls because of COVID-19 movement restrictions.

Nyeri

MTaPS supported and provided technical assistance during AMS work plan follow-up and mentorship site visits at eight MTaPS-supported health facilities and one community pharmacy between May 4-8, 2020. The site visits revealed that most facilities had established MTC and AMS governance structures and were implementing their work plans. Some work plan activities included adopting county guidelines for conducting antibiotic use audits in outpatient settings; improving antibiotic use in facilities through retrospective prescription audits with feedback to prescribers; implementing AWaRe categorization of antibiotics; and developing preauthorization antibiotic order forms. The MTC and AMS teams were encouraged to meet regularly and attend to their work plans, despite COVID-19 competing tasks.

MTaPS continued to do follow-ups on the implementation of MTCs and AMS activities at health care facilities on a weekly basis. These follow-ups were done via e-mail and phone calls because of COVID-19 movement restrictions.

MTaPS, together with the Nyeri County Government, held a virtual two-day training on MTCs and AMS programs for health care facility teams on June 17-18, 2020; 39 health care workers (21 female, 18 male) from 9 health care facilities attended the training. The training focused on identifying problems with medicine use; structures for health care facility AMS programs; planning AMS programs in health care facilities; and performing AMS interventions in health care facilities.

Nairobi

Kenyatta National Hospital

Members of Karatina Hospital MTC and AMS teams attending the virtual MTC/AMS training

Photo credit: Kenneth Irungu, Karatina Hospital

MTaPS is supporting Kenyatta National Hospital in reviewing its AMS policy and prescribing guidelines. This is an ongoing activity that will be finalized next quarter.

Gertrude's Children's Hospital

MTaPS reviewed Gertrude's Children's Hospital's AMS policies, guidelines, and standard treatment guidelines for infections and submitted feedback to the hospital's AMS team.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Review of NASIC's IPC and AMS TWGs' TOR	July
Review action plans of NASIC's IPC and AMS TWGs	July
Participate in quarterly meetings to support technical advice in implementing work plans	July
Validate national IPC strategic plan, policy, and guidelines	July 2-3
Launch national IPC policy and guidelines	July-August
Validate national IPC training curriculum and resources	July-August
Finalize M&E framework for AMR NAP	July
Validate M&E framework for AMR NAP	August
Review/update existing IPC in-service training materials for CPD-linked delivery for health professionals	July
Apply updated IPC/CPD materials in target CPD sessions	August-September
E-learning course development and piloting	August-September
Conduct technical supportive supervision for implementing county and health-facility IPC interventions – Nyeri and Kisumu	July-September
Launch national AMS guidelines for health care facilities	July
Launch KEML 2019	July
Finalize AMS content PowerPoint slides and a trainer's guide	July

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Finalize validation of AMS CPD curriculum for health professionals	July
Apply AMS CPD resources in target CPD sessions	July-September
Provide technical supportive supervision to implement county and health-facility AMS interventions – Nyeri and Kisumu	July-September
Finalize AMS content PowerPoint slides and a trainer's guide	July-September

MALI

For progress on MTaPS/Mali's COVID-19 activities, click here.

This quarter was marked by the start of the coronavirus pandemic, which has greatly impacted the implementation of planned activities. In particular, the quarterly meetings of the National Multisectoral Coordination Group (GCMN) and its two technical working groups have been affected as most members are deeply involved in the COVID-19 response. However, MTaPS has continued other AMR work through IPC and AMS activities. Some activity funding has been reallocated to COVID-19 activities (with result area 1 fully dedicated to COVID-19 response). They are:

- Activity 1.1.1b: Work with two of the six technical working groups of the GCMN for the Fight Against AMR (GCMN-RAM) —AMS and IPC—to support related interventions
- Activity 1.1.2: Facilitate collaboration and biannual one-day joint learning workshop between animal and human health sector professionals to enhance implementation of health regulations, guidelines, and policies governing IPC and antimicrobial
- Activity 2.5.1: Strengthen IPC programing at the health-facility level

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.1.1: Strengthen IPC programming at the central and peripheral levels in the animal health sector

From April 23 through June 26, MTaPS, in collaboration with National Directorate of Veterinary Services (DNSV) and the AMR secretariat, conducted a nationwide rapid assessment of hygiene conditions and prevention and control of infections in the animal health sector, including implementation of guidelines and regulations in IPC. The assessment covered the central and intermediate levels and service points (farms and veterinary clinics).

In addition to a literature review, interviews with 38 key informants in animal health (10 in Bamako, 4 in Kayes, 5 in Sikasso, 7 in Segou, 7 in Mopti, and 5 in Koulikoro), including 13 veterinary clinics and 12 farms, took place. Also, visits were conducted at several sites to identify IPC infrastructure and equipment.

The responses from the questionnaire administered to the stakeholders and the SWOT analysis made it possible to assess the state of hygiene and IPC in the animal health sector at the national level, as indicated in table 1.

Table 1. National scoring of IPC key components

#	COMPONENTS	SCORE
1	IPC	45/100
2	Guidelines on prevention and control of animal diseases	61/100
3	Education and training on et formation on prevention and control of animal diseases	37/100
4	Strategies for the implementation of interventions	62/100
5	Monitoring & evaluation	46/100
6	Infrastructure, materials and equipment	36/100
	Total	**287/600**

From the analysis, the animal health sector was found to be at the basic level of IPC (151-300 points); 287 points were obtained for all the main components. Following the assessment, MTaPS, in collaboration with the GCMN and DNSV, will develop IPC guidelines for the animal sector.

Table 2. Key recommendations based on IPC assessment

TOPIC	RECOMMENDATION
Hygiene	• Strengthen the training of field staff • Allocate sufficient materials and financial resources to technical services • Review legislative and regulatory texts
Animal disease control	• Strengthen the animal disease control system • Make the concept of One Health more operational
Prevention of animal diseases	• Apply health measures and continue to organize the vaccination program • Allocate sufficient financial resources to animal health • Provide veterinary technical services with equipment, including cold storage equipment • Build IPC capacity of animal health workers • Periodically evaluate the animal health mandate for better management of the privatization of the veterinary profession • Strengthen collaboration between veterinary services and NGOs operating in the animal health sector
Infrastructure	• Strengthen the capacities of existing diagnostic laboratories • Set up incinerators in the veterinary sector
Training	• Establish a specific training program for field agents that emphasizes in-service training of technical staff
Funding	• Increase the funding level for the animal health sector

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1. Strengthen AMS

Sub-activity 3.1.1.a Conduct rapid assessments of stewardship policies and regulations and supply chain management of antimicrobials in the human and animal health sectors

MTaPS, in collaboration with the GCMN, facilitated these rapid assessments during the quarter. Regarding human health, the rapid assessment identified several gaps in regulations and the supply chain for antimicrobials. There are no specific regulations for antimicrobials, unlike other therapeutic classes, such as narcotics. In addition, there is no up-to-date database for monitoring and analysis of market authorization procedures. Information on regulatory violations is not centralized and requires close collaboration of the departments responsible for enforcing and monitoring rules and regulations. Medicine quality is a critical area of pharmaceutical policy. However, there is no product-supplier database or a database for the acquisition of antimicrobials outside of health programs.

The country has a national list of essential medicines that is updated every two years. This list defines the authorization of prescription in the health pyramid, but there are no guidelines for the prescription of antimicrobials by health care professionals (for example, the number of antimicrobials per prescription). Antimicrobials on the current list are not organized according to the AWaRe classification. There are no standardized treatment protocols for using antimicrobials outside of health programs.

The resupply procedures of health facilities are defined in the National Supply Chain and Distribution of Essential Medicines Manual (SDADME). The procedures apply to all drugs without distinction, including antimicrobials. Also, the country does not have a policy for donating health products. Revision of SDADME has been proposed by several evaluations. Although the National Pharmaceutical Policy dictated the establishment of hospital therapeutics committees, hospital law does not mention therapeutics committees.

Mali has defined procedures to provide health care, particularly in the private sector, and has adopted pharmacovigilance directives. However, the notification rate of adverse effects is quite low. Additionally, there are no data on compliance with the national essential medicines list (EML).

For animal health, the assessment revealed that there is a regulatory framework for veterinary medicine in Mali, but the provisions and application of the regulations are often insufficient. In addition, there are no specific regulations regarding the use of antimicrobials.

Using standardized therapeutic protocols is not currently widely practiced in veterinary medicine. In practice, waiting times are not respected, and the identification of animals is not required on most farms.

Decree N° 66/PG-RM of March 11, 1985, determines the list of essential drugs for the health and protection of livestock. The decree was amended in 2015. However, there is no training on the concept of essential medicines in schools specializing in training for veterinary auxiliaries.

Law No. 2016-004 from February 12, 2016, governing veterinary pharmacies stipulates that, except for medicated food, no veterinary drug can be dispensed to the public if it has not previously received a market authorization issued by the West African Economic and Monetary Union Commission. However, several products do not have such market authorization (local industry) or have an expired market authorization. The management of veterinary medicinal products is not controlled: the import and distribution circuits are uncontrolled; self-medication occurs because of parallel markets; there is a low literacy level among breeders; and there is weak action by control services on fraudulent and counterfeit products.

The distribution of veterinary medicine is a critical point in the performance assessment of veterinary services. It is subject to a regulatory framework, but significant challenges exist in distribution. It is managed by people who often have little or no qualifications, there is little real control, and there is a widespread lack of knowledge of the technical rules. Due to unrestrained and often illegal competition, there are ineffective, outdated, and even dangerous products on the market. The products are used in first intention and often misused by breeders. Table 3 shows the recommendations aim to address the challenges cited above.

Table 3. Recommendations from the rapid assessment

TOPIC	RECOMMENDATION
Human health	• Improve collaboration among various actors implementing the National Pharmaceutical Policy • Develop a regulatory framework for antimicrobials • Develop a donation policy for health products • Establish and monitor the functionality of the drugs and therapeutics committees • Develop treatment guidelines for infectious pathologies not covered by a specific program • Revise the national supply chain and distribution of essential medicines
Animal health	• Consolidate regulatory frameworks to guarantee access to safe, effective, and quality antimicrobials • Draft the implementing texts for Law No. 2016-004 from February 12, 2016, governing veterinary pharmacy in Mali, focusing particularly on pharmacovigilance • Prevent the production, distribution, and consumption of substandard veterinary products and prohibit the use of antimicrobials as growth promoters in animal production • Promote and apply good practices at each stage of the production and processing of food of animal origin • Increase biosecurity on farms to avoid infection by improving animal hygiene and welfare • Put in place a regulatory framework for the use of antimicrobials and those critical for both human and animal health, such as third and fourth generation fluoroquinolones and cephalosporins • Design communications and interventions to change behaviors related to antimicrobial use in the field • Develop a database for monitoring and collecting quantitative data on the use of antimicrobials in animals • Adopt the concept of standardized therapeutic protocols • Design and implement simple and efficient control programs for detecting antimicrobial residue in food of animal origin

Sub-activity 3.1.1.c Provide technical support to develop treatment guidelines for managing common infectious diseases through a workshop with the involvement of different stakeholders

MTaPS/Mali collaborated with the National Hospital Evaluation Agency (ANEH) and the Pharmacy and Medicines Directorate (DPM) to prepare a workshop held June 2-4 on the development of a guide on antimicrobial use. In addition to MTaPS staff, participants were DPM staff and doctors and pharmacists from several health facilities. Workshop presentations focused on treatment guidelines for infection pathologies, implementation of the WHO AWaRe classification, the sensitivity profile of germs at the national level, and the review of documents from the national, sub-regional, and international levels.

Following the presentations, participants held discussions on:

- Adapting a national document to the country context
- Using national data
- Seeking additional data on the sensitivity profile of antibiotics from laboratories
- Clarifying the approach of the document that will be developed (pathology, diagnostics, and treatment or pathology and treatment)
- Involving the private sector in the development of the guide
- Supporting laboratories and strengthening collaboration between them to harmonize efforts
- Regularly collecting and disseminating data on germ sensitivity
- Considering the isolated germ and its sensitivity profile (local microbial ecology)

Participants agreed on the format and content of infectious disease treatment guidelines, which will include the following:

- List of the main isolated germs and their sensitivity profiles at the national level
- Reminder of the different antibiotic classes (considering the characteristics of the antibiotics and their pharmacokinetic profiles, as well as monitoring treatment efficacy)
- Best practices for antibiotic prescribing and use
- For each pathology, major clinical signs and the most frequently isolated germs during pathology and treatment (specify first, second, or third intention)
- Antibiotic prophylaxis in surgery
- Prevention associated with care

The workshop on developing the guide will be held in the region of Koulikoro July 6-11, 2020.

Sub-activity 3.1.1.d Assist the DPM and GCMN-RAM with grouping EML antibiotics into AWaRe categories

MTaPS provided technical and financial support to the DPM and GCMN to organize a workshop on June 17, 2020, to monitor implementation of the AWaRe classification, particularly progress on implementing the roadmap that was developed in a previous workshop to help reach the goal of 60% use of access category antibiotics by 2023. The workshop focused on:

- The AWaRe concept, notably (i) a review of its objectives, definitions of the categories, and the results of a comparison between the current national EML and the WHO list and (ii) the epidemiologic profile of infectious pathologies
- Roadmap for implementing the steps of the AWaRe concept, including reviewing the implementation steps, strategies for each step, and the number of activities for each strategy

Following the presentation, it appears that data on 14 pathologies are already routinely collected in the health system as opposed to the list of 25 pathologies retained by WHO. There was a consensus that arrangements must be made to consider the 11 remaining pathologies on the data collection tools of the health care system, i.e., DHIS 2, Monitoring Tool for Health Products (OSPSanté), and monthly activity reports. The establishment of DTCs would allow for multiple evaluations and addressing pertinent questions raised in an efficient manner. Other discussion points were:

- Delays in implementing the roadmap
- The choice of infectious pathologies
- The need for closer collaboration between the DPM and the Directorate General of Health and Public Hygiene
- Amending certain transversal activities
- The need for a framework for collaboration between the DPM and the DNSV to share information on medicines

Activity 3.5.1. Support the DPM to establish DTCs at the five selected sites

MTaPS is supporting the GCMN-RAM, DPM, and ANEH to establish DTCs in five selected sites by establishing a governance and oversight system for DTCs and developing TOR and training materials based on national guidelines and protocols to improve the capacity of DTCs to oversee AMS activities at the facility level. MTaPS organized a workshop on June 29-30, 2020, to validate DTCs' TOR. The workshop recommended that:

- DTCs oversee the management of medicines and sterile medical devices
- DTCs be linked to hospitals' medical commissions, which were established by the national hospital law
- An AMS group be created within the DTC
- With reference to the approved TOR, DPM should draft and submit a ministerial note to the minister of health for signature
- DTC operating mechanisms that are set forth in the internal regulations be signed by facility heads
- The DTC training toolkit be developed and that trainings proceed

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Provide technical and logistical support for organizing quarterly GCMN-RAM meetings to review NAP-AMR activities supporting the IHR-2005	August
Develop national guidelines for IPC in animal health	July-September
Develop the national action plan for AMS and develop AMS guidelines in the human sector	July
Develop treatment guidelines for managing common infectious diseases and monitoring tools for quality assurance of the country's rational prescribing practices for antimicrobials	July
Support the GCMN, DPM, and the ANEH to establish DTCs in the previously mentioned five selected sites	August

MOZAMBIQUE

For progress on MTaPS/Mozambique's COVID-19 activities, click here.

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

1.1.1 Support the MOH in Mozambique to operationalize new legislation for establishing Autoridade Nacional Reguladora de Medicamentos de Moçambique (ANARME), a semi-autonomous regulatory authority

The National Directorate of Pharmacy (DNF) will at some point transition to the semi-autonomous regulatory authority ANARME. MTaPS is supporting the DNF in various activities toward that goal. To operationalize regulatory systems at the DNF, during this quarter, MTaPS worked with a consultant to review two regulations agreed to by the DNF in accordance with good legislative practices and recommendations from WHO's Global Benchmarking Tool (GBT):

- Regulation of Pharmaceutical Inspection
- Regulation Regarding Pharmaceutical Profession

In addition, MTaPS developed a Guideline for Labeling and Package Leaflet as requested by the DNF and worked with the DNF to define the next priority regulations and guidelines to be drafted and reviewed.

These achievements will contribute to effective pharmaceutical governance and a robust legal framework so the medicine regulatory authority can ensure increased availability of and access to safe, efficacious, and quality-assured medicines.

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

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

MTaPS finalized the procurement process for contracting an IT company to provide essential and limited support to the DNF in ensuring that Pharmadex, a tool for medicine registration, is functional. The IT company will provide technical services, including maintaining the DNF Pharmadex computer network, providing technical support, and ensuring that DNF IT systems are running smoothly.

MTaPS conducted a user acceptance test with the DNF to get approval on the import module of Pharmadex. The DNF recognized that the module meets the requirements specified on the DNF import SOP but asked that more functionalities be added, including:

- Release of goods from the port of entry
- Import of non-medicines
- Import of non-registered products for emergency situations

Pharmadex's medicine importation module will allow applicants to ask for import authorization online and to print import authorization documents that will reduce the DNF's paperwork and workload to produce statistical reports.

MTaPS continued working with DNF counterparts to get approval from the DNF on cloud-based solutions to install the online version of Pharmadex. MTaPS organized a meeting with the DNF senior leadership team to explain the advantages of the solution proposed and the plan for sustainability.

During the meeting, MTaPS collected information to write an official letter to the DNF senior leadership team to inform it about the process and responsibilities and to formulate a data use agreement in

collaboration with the DNF to be able to deploy the new internet-ready version of Pharmadex on the internet server (Cloud).

Cloud hosting will offer the DNF advantages in terms of solution performance, lower internet costs, and higher data security, all of which make this solution the most compatible with the current state of the infrastructure and internet at the DNF.

With the deployment of this new version of Pharmadex, pharmaceutical companies can submit applications for marketing authorization of medicines online. This enhancement is intended to improve the speed and quality of the medicine registration process, reduce the clerical workload, and improve customer service and efficiency.

2.1.2 Support DNF to develop a QMS leading to ISO 9001:2015 accreditation (activity continuing from FY19)

MTaPS in collaboration with Celsian Consulting, organized and conducted virtual training in areas of a quality management system (QMS), including QMS awareness and risk management for DNF staff. Twenty-six participants (7 males and 9 females), including the DNF Deputy Director, DNF QMS Leader, DNF QMS focal points, and DNF Heads of Departments and Sectors, attended the training. During the training, DNF staff:

- Refreshed and strengthened their knowledge on QMS awareness principles and risk management concepts
- Improved their capacity to disseminate knowledge on QMS awareness principles and risk management concepts across the DNF
- Received information on quality management tools to support the DNF in selecting tools tailored for the DNF's role and context
- Developed skills to develop a risk register and produced a draft DNF risk register
- Received knowledge about process mapping techniques and got an orientation on how to validate process mapping tools that are in use

MTaPS' support in this activity will contribute to standardizing DNF operational regulatory processes, to the DNF obtaining ISO 9001:2015 certification, and to improving the DNF's maturity level according to the WHO GBT.

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

3.1.1 Provide technical assistance to establish an active surveillance system for newly introduced medicines in HIV and TB programs

MTaPS worked with the DNF and the HIV program to commence virtual monthly supportive supervision of sites participating in ongoing active surveillance of TLD by provincial focal points and central-level supportive supervision and monitoring of the sites by DNF and HIV program staff to ensure adherence to protocol. The support included:

- Developing a plan for phone calls in which the focal persons at the DNF and HIV program were assigned to each province and health facility for follow up monitoring
- Purchasing and distributing airtime for phone calls to the DNF, HIV program, and provincial focal persons
- Coordinating the implementation plan with the provinces and providing orientation for provincial focal persons on how to conduct virtual support supervision to enable them to commence phone calls to the focal persons at the facility level

- Reviewing the supportive supervision tools adapting for the current COVID-19 situation and improving quality of supervision phone calls. The supervision tools reviewed were the checklist for site supervisory visit and the supervisory visit report template.

MTaPS worked with the DNF and the HIV program to establish the most appropriate method for following up with patients on DTG enrolled into the cohort during the COVID-19 lockdown. The method adopted was aligned with the method adopted by the national HIV program for patients to access care and ARVs during the lockdown period. The data of patients enrolled since the implementation of the active surveillance system are shown in table 1.

Table 1: Number of patients on DTG enrolled in the active surveillance system

PROVINCE	HEALTH FACILITY	# PATIENTS ENROLLED
Maputo City	Mavalane	62
Maputo Province	Machava II	250
Maputo Province	Ndlavela	57
Gaza	Carmelo	138
Gaza	Macia	60
Zambezia	Namacurra	100
Nampula	Marrere	304
Manica	Gondola	156
Niassa	Cuamba	75

3.1.2. Adapt the Pharmacovigilance Monitoring System (PViMS) to the Mozambique context and train DNF staff and data collectors on its use

Following the implementation of the active surveillance system and to ensure proper collection, management, and analysis of safety data generated from the activity, MTaPS, with support from Columbus Consulting, facilitated a three-day virtual training of trainers (ToT) to equip the national-level team, made up of DNF and HIV program staff, on use of PViMS for data entry so that they will gain and transfer knowledge to provincial teams.

MTaPS team facilitating a virtual PViMS ToT for the DNF and HIV team.
Photo credit: MTaPS/Mozambique

The training was conducted online because of the restricted movement occasioned by the COVID-19 lockdown. The training was conducted in real time using synchronous learning tools with video and audio conferencing for communication between facilitators in South Africa and Nigeria and trainees in Mozambique.

During the training, five professionals were trained as master trainers on use of PViMS and acquired knowledge and skills on:

- The importance, objectives, and context of PViMS for active PV

- Data entry into forms A, B, and C at the health facility level, synchronizing the data entered into PViMS to ensure its availability at the central level
- Teaching PV and HIV health facility focal persons how to use PViMS for data entry

The five trained master trainers include the co-investigators from the DNF and HIV program and the system administrator from the DNF. They will provide virtual technical technology-related support for the use of PViMS for PV and HIV health facility focal persons.

After the ToT, MTaPS and the master trainers organized and cascaded the virtual PViMS data entry training to provincial-level teams. Seven provincial-level trainings were done to provide skills to data entry personnel at the facilities on how to enter the data generated at the facilities into PViMS and how to synchronize the data, so they are available for review at the central level. The master trainers and MTaPS country team were divided into three groups to facilitate the provincial-level trainings. The trainings were conducted online in real time using synchronous learning tools with video and audio conference for communication between facilitators in Maputo and trainees in each of the seven provinces. A total of 34 participants (18 males and 16 females) were trained across the seven provinces. Each province had two provincial-level staff (PV and HIV focal persons) and two focal persons from each facility (PV and HIV).

Participants were trained on how to enter data into PViMS and acquired knowledge and skills on:

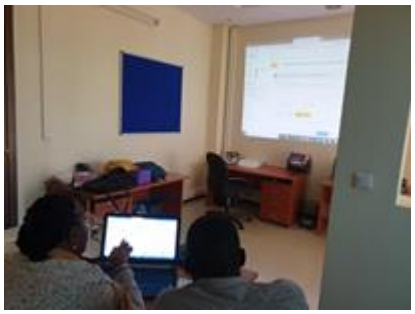
- The importance, objectives, and context of PViMS for active PV
- Data entry into forms A, B, and C at the health facility level, synchronizing the data entered into PViMS to ensure its availability at the central level

Provincial-level staff who were trained (PV and HIV focal persons) will provide supportive supervision to facility staff to enhance the quality of data entered in PViMS. The PV and HIV focal persons from each facility will be directly responsible for enrolling patients, collecting and entering data into PViMS, and following up with enrolled patients.

Prior to delivering the virtual training, MTaPS, in collaboration with the DNF and HIV team, undertook the following activities to ensure a successful training:

- Delivered the PViMS equipment (configured tablets) to each of the seven provinces (to be delivered to the nine health facilities currently enrolling patients)
- Organized the training plan and training teams
- Prepared the training sections, adapted the training materials, and agreed on the training schedule
- Developed a training reference guide to support the health facility trainings
- Selected and tested the synchronous learning tools to use for the training

Table 2 provides a breakdown of the provincial-level cascade training on data entry into PViMS.



Facilitators during virtual PViMS data entry trainings
Photo credit: MTaPS/Mozambique

Table 2: Virtual PViMS data entry provincial-level cascade trainings

DATES (2020)	TARGET PROVINCE	# PARTICIPANTS	HEALTH FACILITIES	FACILITATORS GROUP (MASTER TRAINERS + MTAPS COUNTRY TEAM)
June 2–3,	Maputo City	4	General Hospital Mavalane	Group I (2 facilitators)
June 2–3,	Maputo Province	5	General Hospital Machava, Ndlavela Health Center	Group II (2 facilitators)
June 2–3,	Nampula	4	General Hospital Marrere	Group III (2 facilitators)
June 4–5,	Gaza	7	Carmelo Rural Hospital Center, Macia Health Center	Group I (2 facilitators)
June 4–5,	Zambezia	5	Namacurra Health Center	Group II (2 facilitators)
June 4–5,	Manica	5	Districts Hospital Gondola	Group III (2 facilitators)
June 8–9,	Niassa	4	Rural Hospital Cuamba	Groups I, II, and III

3.2.1 Strengthen Drug and Therapeutics Committees (DTCs) to promote appropriate use of medicines and AMS

During this quarter, MTaPS revised the antimicrobial stewardship (AMS) training packages based on input from the AMS workshop conducted last quarter by MTaPS for the Pharmacy Hospital Department (DFH) and DTC/AMS committee members from eight selected provincial hospitals across the country.

These materials will allow health care workers to enable in-service practitioners to implement AMS interventions in prioritized health facilities as part of the multipronged technical approach.

In addition, MTaPS produced a report of the ToT and facility-level workshops. The report contains import findings and recommendations that will enable the DFH to support implementation of an effective AMS program in health care facilities.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Activity 1.1.1 Support the MOH in Mozambique to operationalize new legislation for establishing ANARME, a semi-autonomous regulatory authority • Continue to review draft regulations agreed with the DNF • Continue to develop new regulation drafts agreed with the DNF (pharmacovigilance regulation) • Develop course content and training materials for building capacity of legal staff for drafting regulations • Organize logistics for conducting virtual learning sessions • Conduct the training	July–August
Activity 2.1.1 Strengthen use of electronic information technology solutions for efficient and transparent medicine regulatory processes Hire IT company to support Pharmadex: • Sign contract with the successful company • Introduce the company to the DNF and agree on the starting date • Supervise the services delivered to the DNF Implement new version of Pharmadex: • Obtain agreement with the DNF to deploy new version of Pharmadex using a cloud solution • Test new version of Pharmadex using cloud solution • Conduct online version training • Recap/refresh • ToT to guide applicants to use new version • Deliver the manual • Deliver the source code • Deploy new version of Pharmadex using cloud solution • Compare cloud solution performance/new Pharmadex server and document the results Implement import module of Pharmadex: • Develop the new functionalities the DNF requested to be added to the import module • Conduct import module ToT and other user acceptance testing (UAT) (version 2) to approve functionalities requested • UAT (version 2) • ToT to guide applicants and other sectors to use the module • Deliver the manual • Deliver the source code	July–September
Activity 2.1.2 Support DNF to develop a QMS leading to ISO 9001:2015 accreditation (activity continuing from FY19) Organize and conduct an IA training for DNF staff: • Develop course content and training materials for building capacity • Organize logistics for conducting virtual learning sessions • Conduct the training Perform IA desk review: • Collect desk review requirements • Plan desk review • Conduct desk review Perform gap analysis: • Collect gap analysis requirements • Plan gap analysis • Conduct gap analysis	July–August

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Activity 3.1.1 Provide technical assistance to establish an active surveillance system for newly introduced medicines in HIV and TB programs • Continue enrollment and follow up of enrolled patients on DTG • Support monthly supportive supervision of participating sites by provincial focal points • Support DNF and HIV program to provide central-level supportive supervision and monitoring of the sites to ensure adherence to protocol • Support periodic coordination and review meeting	July–September
Activity 3.1.2 Adapt the Pharmacovigilance Monitoring System (PViMS) to the Mozambique context and train DNF staff and data collectors on its use • Update and finalize PViMS manual • Train a system administrator to manage the system locally • Train DNF and HIV staff on data analysis using PViMS • Support periodic data cleaning and analysis • Support use of data for clinical and regulatory decision making	July–September
Activity 3.2.1 Strengthen Drug and Therapeutics Committees (DTCs) to promote appropriate use of medicines and AMS Support AMR initiatives: • Agreed with DFH on providing support for remote supervisory site visits • AMS action plans: • Review and document AMS action plans developed by seven health facilities during the AMS training Health facility reports: • Support DFH on the report template and follow the elaboration of monthly reports by health facilities on AMS implementation • Receive, review, and document monthly reports done by health facilities on AMS implementation Produce report on implementation: • Produce report on implementation of agreed-upon AMS activities	July–August

NEPAL

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

MTaPS organized a remote question-and-answer session with International Law Institute-African Center for Legal Excellence (ILI-ACLE), the Department of Drug Administration (DDA), the National Medicines Laboratory, and Promoting the Quality of Medicines Plus (PQM+) to help ILI-ACLE finalize its gap analysis report of Nepal's legal and regulatory framework for medicines and supplies, which supplements the findings of the WHO Global Benchmarking Tool (GBT). The report will inform a zero draft of the new Nepal drug law, which ILI-ACLE is helping the DDA prepare. The DDA, the National Medicines Laboratory, MTaPS, and PQM+ have reviewed and agreed on a list of chapters and key topics to be included in the zero draft for the regulation of medical products and food, considering the DDA's transition into an FDA. Once the draft is ready by the end of July 2020, MTaPS will support the DDA to seek feedback from all stakeholders and assist the DDA to prepare a concept note for the amendment of the law and submit it to the Ministry of Health and Population (MOHP) for processing. MTaPS mapped the different rules, regulations, codes, and guidance for an overview of the documents, their scope, and their relation to one another and to the Drug Act. The mapping report will guide the revision of these documents, which will follow the amendment of the Drug Act.

MTaPS partner Celsian provided remote support to the DDA in reconfiguring its organizational structure, considering the decentralization policy and more recently the transition into a Food and Drug Administration (FDA). The MOHP, DDA, National Medicines Laboratory, MTaPS, and PQM+ have agreed that the reconfiguration would involve a comparative analysis of organization structures of national regulatory agencies of other countries and a problem analysis based on document review and interviews/questionnaires. A report on the findings with a proposed new organizational structure will be available for wider discussion by August 2020.

OBJECTIVE 2: INSTITUTIONAL AND HUMAN RESOURCE CAPACITY TO REGULATE MEDICINES, FAMILY PLANNING COMMODITIES, AND HEALTH TECHNOLOGIES INCREASED

The planned external assessment using the WHO GBT was replaced by a remote verification based on available documents and evidence compared to the DDA self-assessment conducted in August 2019. MTaPS provided two independent auditors to join the WHO team in verifying the two of the eight assessment areas—registration and marketing authorization and market surveillance and control. Other WHO-approved and accredited auditors assessed other areas. The COVID-19 pandemic delayed the assessments, which resulted in a delay in the verification report and the institutional development plan (IDP). WHO expects to have the report finalized in July. The DDA, with support from WHO, MTaPS, and PQM+, will than finalize the IDP and develop the strategic plan.

Based on the self-assessment, the verification conducted by the MTaPS auditors demonstrated that the DDA's progress has been limited. Although a few indicators have improved slightly, other indicators were now scored the same or slightly lower, and the maturity level has not changed and remains at level 1. Therefore, the verification will not change the focus or prioritized activities in this and next year's MTaPS work plans, which are focused on improvements that will enable the DDA to reach regulatory system maturity level 2. Becoming an FDA might drain some resources from GBT maturity improvement, as the DDA assesses medicines, including vaccines regulation, but not medical devices or food.

Experts from Celsian started a remote situation analysis of the QMS through a desk review of regulations and DDA strategies, systems, and practices. Based on the gaps identified, the QMS implementation will begin with the establishment of the QMS scope, quality policy, and objectives,

followed by improvements in document management, staff training on QMS awareness, risk management, and quality auditing and finally drafting a QMS manual.

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

MTaPS is providing technical assistance to the DDA to strengthen its electronic regulatory management information system (MIS) by identifying the most suitable information technology (IT) solution through mapping the DDA's divisional workflows and comparing the fit of current and expansion needs to the existing solutions. MTaPS carried out an MIS and IT infrastructure feasibility study to evaluate usability and user satisfaction with the DDA's current MIS system—the Drug Administration Management System (DAMS). The study methodology included interviews with the DDA management and staff and DAMS developers, a survey of 19 DAMS users from the DDA's central and regional offices and local manufacturing companies, and a comparison of DAMS and other solution that could be considered. The number of options was very limited when setting requirements and considering availability, use in other countries, being an off-the shelf solution, system maintenance and updates, annual fees, access to source code and the possibility to tailoring to the Nepal context, applicability to drug regulation, and future needs in Nepal. Although responsibilities are very similar across regulatory bodies, the alternative regulatory management information systems that could be considered in Nepal were limited to WHO SIAMED and Pharmadex.

The study showed that DAMS has issues related to speed and user interface, few standard reports, insufficient capacity to attach documents and generate reports, weak client and DDA communication systems, and a slow search engine. The comparative analysis of registration functions found many similarities among DAMS, SIAMED, and Pharmadex, but the latter has updated registration functionalities to handle updated dossier review as per the latest WHO guidelines and renewal and registration variations, and it is being maintained and updated, which was a concern with SIAMED. The study also looked at hardware, software, networking, and information-sharing platforms. The DDA has no file server systems or archive systems for information management, information sharing, or backup and recovery purposes. There is a need to ensure that the DDA MIS has increased access, communication, and data exchange with regional offices and that it incorporates new components such as medical devices registration, import-export, inspection, and pharmacovigilance (PV). The MIS for the Medicines Control Laboratory, supported by PQM+, also need to be further developed, giving priority to interoperability and data sharing between the DDA MIS and the laboratory system. Compared to DAMS, Pharmadex already has some of the needed additional modules covering import-export and PV, and it has more reporting capacity.

After comparing the option of expanding and strengthening DAMS against the option of introducing an open source available drug regulatory system already in use in several other low- and middle-income countries, it seems most feasible to select Pharmadex as the more advanced, cost-effective, and best supported solution. The feasibility study will be presented and discussed with the DDA, and consensus on the way forward will be reached in the next quarter. Based on the above study, MTaPS has also started detailing the system requirement specifications with proposed IT infrastructure for information management and sharing, and this work will continue during the next quarter.

MTAPS/NEPAL'S COVID-19 ACTIVITIES: STOCK STATUS REPORTING FOR SELECTED ESSENTIAL MEDICINES

MTaPS continued supporting the DDA to use a Google data collection application that serves as an early stock warning system for essential medicines selected for monitoring by the MOHP Nepal COVID-19 taskforce. The stock levels and reporting status of 115 companies (local manufacturers and importers) and 264 health commodities can be managed through the system in real time

(https://datastudio.google.com/s/rqy3mlKREkM). The database will include data from the eLMIS, including stock on hand at the manufacturer or importer level with a focus on an early stock-out warning system for selected essential medicines. MTaPS supported the DDA to use the database to find key information for analyses and decision making.

Since the system was set up at the end of March, 72 of 115 companies reported to the system, with 24 to 55 companies reporting their stocks each week. Some companies only reported once (figure 1). The DDA regularly follows up with companies for weekly reports through emails and a WhatsApp group, but the data demonstrate that a change in this strategy is needed to gather more reports on a regular basis.

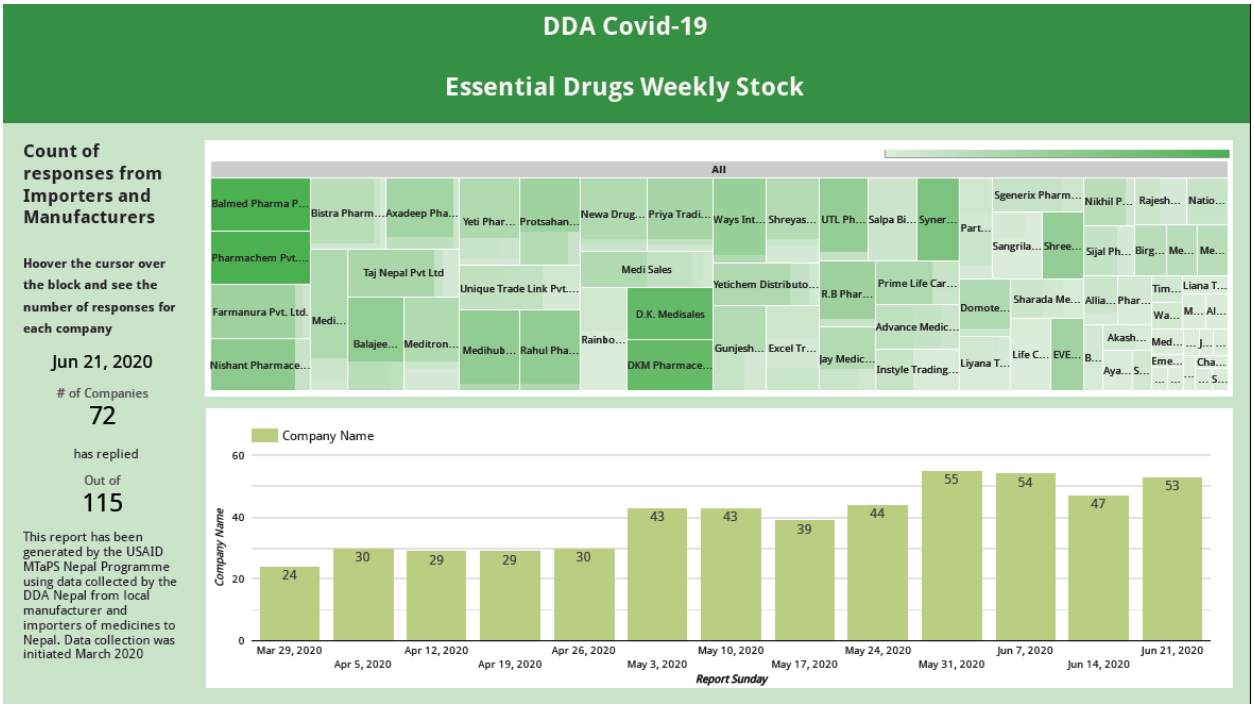


Figure 1. COVID-19 weekly stock status report

MATERNAL, NEWBORN, AND CHILD HEALTH ACTIVITIES

The MTaPS team finalized the maternal, newborn, and child health (MNCH) report to be submitted to USAID in the next quarter. From the WHO-recommended list of MNCH products, 71% are registered in Nepal with the correct formulation and strength, while the remaining products are registered with product combinations, strengths, or formulations that differ from WHO's recommendations, despite the favorable conditions for registration with low fees and short handling time. Approximately 81% of the MNCH products are listed in the national formulary, and about one-third are locally produced. Product registration is valid for two years, and drug registration has expired for 57% of MNCH products. MTaPS' assistance in strengthening medicines regulation and increasing registration validity in Nepal is likely to improve the availability of all MNCH products moving forward.

ACTIVITIES FOR NEXT QUARTER	
DESCRIPTION	DATES (2020)
Revise structure for DDA/FDA central level and provincial level set up	August
Support DDA/FDA to develop terms of reference for coordination and oversight structure	September
Finalize update to the Drug Act	August
Organize remote consultations on legal revision	September
Access and update regulations, rules, and guidelines needed to implement the revised Drug Act	Ongoing
Translate current rules and codes into English and make them available on the DDA website in English and Nepali	Ongoing
Assist the DDA in developing a five-year strategic plan based on the IDP	September
Strengthen drug registration by developing and updating guidelines and providing capacity building sessions to DDA master assessors on good review practices	Ongoing
Strengthen PV by developing PV guidelines for surveillance, including the legal requirement of reporting by marketing authorization holders, and a PV strategy/plan	Ongoing
Support implementation of Good Pharmacy Practices by revising 2005 guidelines and inspection tool for public- and private-sector retail pharmacies	Ongoing
Update DDA regulations to incorporate compliance with Good Dispensing Practices and revise and implement Good Dispensing Practices guidelines for effective medicines quality assurance along the supply chain	Ongoing
Develop a draft DDA quality manual, including marketing authorization, licensing of premises, and inspections processes	September
Create awareness among key decision makers and build capacity for QMS among implementers and through virtual training	September
Assess feasibility of ensuring needed IT infrastructure (hardware/software/network/internet) at the DDA	July
Develop requirements and technical specifications for selected modules of a future regulatory information system	September
Provide technical support for monitoring essential medicines stock status at manufacturers and importers	Ongoing
Assist the DDA to select an MIS solution and, if needed, engage with an IT company to outsource the design and development of a system and initiate software development	Ongoing
Engage and orient private-sector pharmacies and wholesalers on new GXP requirement	September
Design and implement problem analysis of medicines management in public-sector facilities	September

THE PHILIPPINES

For progress on MTaPS/Philippines COVID-19 activities, click here.

OBJECTIVE 1: PHARMACEUTICAL-SECTOR GOVERNANCE STRENGTHENED

MTaPS worked with the Procurement and Supply Chain Management Team (PSCMT) of the Department of Health (DOH) to enable it to take a lead in establishing the procurement and supply chain management (PSCM) sub-components of province- and city-wide health systems. MTaPS proposed a performance management plan for country-wide PSCM functions that will align with the Civil Service Commission's performance governance system and the revisited strategy of the DOH to catalyze the transformation of city- and province-wide health systems. This draft plan contains updated input on the PSCMT's strategic commitments, roadmap of activities, and key performance indicators for PSCM. However, because of the COVID-19 pandemic situation, activities of the DOH's Office of Strategic Management, which would formalize the adoption of this plan into Office Performance Commitment Reports and Division Performance Commitment Reports, were put on hold. MTaPS had several meetings with the PSCMT to discuss a contingency plan and the PSCMT's role during the COVID-19 emergency situation. MTaPS has continued to work with the PSCMT to strengthen its envisioned role, which includes PSCM stewardship and policy making, oversight of PSCM performance, capacity building of local government units (LGUs), and providing shared services so that PSCM functions can be continued and well-coordinated during both emergency and regular situations and ultimately ensure sustainable access to medical products for the population.

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

MTaPS continues to support the DOH in developing a PSCM and PV workforce development plan to determine the required number and distribution of PSCM- and PV-related staff positions, their roles, and required skill sets. The plan will help the DOH put in place and professionalize the necessary PSCM and PV workforce to ensure uninterrupted access to pharmaceutical services and patient safety. MTaPS continued to gather input from the DOH to complete the PSCM and PV workforce assessment report to address the challenges from limited data gathering opportunities during the COVID-19 emergency. MTaPS prepared an online survey instrument to conduct a second round of data gathering through individual response and remotely facilitated focus group discussions. This follow up survey is based on the People that Deliver compendium, reports, and recommendations from other technical assistance providers (e.g., WHO, USAID implementing partners) and will provide necessary input for developing a PSCM and PV workforce development plan that addresses workforce capacity development needs for longer-term improvement of procurement and supply chain management functions.

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

To facilitate the ongoing procurement process for the electronic logistics management information system (eLMIS), MTaPS continued to support the DOH in the technical clarifications for the system and in addressing the challenges created by the COVID-19 pandemic by identifying alternative solutions, such as electronic means of submitting bid documents. The DOH relaunched its Invitation for Expression of Interest for the eLMIS procurement in April 2020 and shortlisted one international supplier. MTaPS attended the DOH procurement committee's pre-bidding conference with the shortlisted supplier and provided an analysis of the challenges and technical inputs to the DOH to respond to the supplier's questions.

However, the procurement of the eLMIS faced several additional challenges with the COVID-19 situation. These included a circular released by the government to repurpose funding for COVID-19 response; the postponement of recruitment of IT personnel to support the eLMIS project; and the delay in the eLMIS procurement process, which would leave inadequate time to achieve the project's deliverables by December 2020 as required by the annual appropriation-based budget. Due to these challenges and associated risks, the DOH decided to cancel the procurement of the eLMIS in 2020 and budget for an early procurement in 2021. MTaPS continues its support to the DOH in analyzing possible options for procuring and deploying the eLMIS in the current situation. The options analysis included seeking other funding mechanisms (e.g., Global Fund, USAID) for the procurement to eliminate the limitations of the procurement mechanism and budget timeline; securing multiyear obligation authority for the early procurement in 2021; and reducing the scope of work for the current annual budget-based procurement so that the required deliverables can be achieved within the budget year. MTaPS is working closely with the DOH and other implementing partners, including Global Fund principal recipients and members of the country coordinating mechanism, to analyze whether the risks associated with the procurement and deployment of an eLMIS can be addressed. Adequate deployment of the eLMIS will enable improved PSCM practices and data monitoring to reduce stock disruptions and ensure better access to pharmaceuticals and medical products for the population.

To facilitate data visibility and analysis for evidence-based decision making, MTaPS identified and analyzed strengths, weaknesses, and prospects of existing data collection and reporting systems, including the Pharmaceutical Management Information System (PMIS) and the National Tuberculosis (TB) Program's (NTP) Integrated TB Information System (ITIS). MTaPS organized several meetings with the DOH's Pharmaceutical Division (PD) and the NTP to present general observations on the different PSCM data channels, possible opportunities for the integration of databases between PMIS and ITIS, and opportunities for enhancing the current PMIS system to collect TB and family planning (FP) consumption and stock on hand data. These measures aim to improve the quantification and distribution practices of the DOH to ensure that adequate quantities of critical products are readily available to the population at health facilities.

As an interim measure for data use, MTaPS performed an analysis of stock and consumption data of TB medicines from the existing fragmented systems (i.e., PMIS and ITIS). The analysis focused on identifying the current stock levels available at the facility level, the top facilities with higher levels of stock, and facilities reporting zero stock. The analysis was shared with the NTP for the development of its allocation plan for the next distribution cycle.

MTaPS conducted a presentation and demonstration of the first version of the interim tool for rational allocation and distribution to the DOH FP program. Using the tool, MTaPS demonstrated the process of generating rational allocation and distribution plans based on consumption and stock data for FP commodities to address uninformed distribution of FP commodities from DOH regional warehouses to service delivery facilities. MTaPS is collecting additional feedback from the FP program to improve the tool and prepare for orientation of the tool to selected regions to start implementation. Moving forward, MTaPS will work with the NTP to introduce a similar tool for rational allocation and distribution of TB commodities based on available consumption and stock data to help both TB and FP programs minimize the risk of stock-outs, overstock, and product expiries.

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

MTaPS continued to support the DOH in operationalizing health technology assessment (HTA), with specific input on aspects related to price negotiation. The Philippines is planning to place the functions of the Central Price Negotiation Board (PNB) within the overall HTA process, wherein after initial cost-benefit analysis and other assessment, the national HTA Committee will nominate health technologies to

be subjected to price negotiation by the PNB to improve their cost-effectiveness, particularly for single-sourced and patented products. MTaPS continued to participate in the National Price Negotiation technical working group and provided input in aligning the HTA process with other strategic procurement initiatives, such as framework agreement and pooled procurement, to ensure availability of quality-assured and affordable medical products in the Philippines.

MTaPS facilitated discussions between the DOH's PD and Procurement Services to finalize the draft of the framework agreement policy by incorporating additional guidelines on pooled procurement mechanisms proposed by the PD. As per the latest draft administrative order, the framework agreement and pooled procurement mechanism will also provide a mechanism for LGUs and the private sector to join the framework agreement or pooled procurement voluntarily, resulting in increased and sustainable access to quality-assured and affordable products to the population in different health sectors.

Due to the commodity and logistics transportation challenges brought by the COVID-19 situation, MTaPS supported the DOH in market scanning for available alternative logistics service providers during the pandemic. A directory of alternative logistics service providers was compiled by MTaPS and shared with the DOH and USAID implementing partners to make use of voluntary and alternative transportation arrangements during the COVID-19 emergency to continue essential TB and FP services to populations in need. An advertisement for additional interested logistics service providers and suppliers was posted on the DOH website to continuously update the directory.

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

MTaPS drafted options for transitioning TB second-line drugs (SLDs) from a Global Fund-funded arrangement to the DOH supply chain. The analysis encompassed requirements for different supply chain steps, including funding source, procurement mechanism, warehousing, distribution, and human resources for the management of SLDs. Moving forward, MTaPS will share and further discuss these options with the NTP, Global Fund principal recipient, and other stakeholders to analyze strengths and weaknesses of each approach for informed decision making on the implementation. This options analysis will support the DOH and NTP in smoothly and sustainably transitioning the SLD supply chain and at the same time ensuring uninterrupted access to these medicines.

MTaPS identified the critical TB medicines that still need to be registered in the Philippines. This identification was based on the National Treatment Guidelines, list of WHO prequalified products to meet the requirements for the National Treatment Guidelines, and list of TB medicines registered in the country to identify the gaps. Due to the prevailing COVID-19 situation, MTaPS provided guidance and supporting documents to the NTP to process an accelerated certificate of registration (CPR) for the products that urgently needed a registration waiver. Moving forward, MTaPS will assist in identification of local market authorization holders to apply for a CPR and in advocacy with the FDA to expedite the registration process for these essential unregistered medicines.

MTaPS continued to support the DOH in upgrading the Pharmacovigilance Monitoring System (PViMS) to version 2 to establish a functional active drug surveillance system for TB and other medicines. MTaPS conducted an orientation on PViMS version 2 for participants from the NTP, FDA, Lung Center of the Philippines (LCP) research group, and selected TB providers/partners. MTaPS finished updating the test server of PViMS version 2 and is working with the DOH's Knowledge Management Information Technology Service to address IT concerns. During the next quarter, MTaPS plans to organize a series of trainings and test runs for the NTP, PD, FDA, LCP research group, and selected TB providers/partners in anticipation of the roll out phase.

MTaPS, together with USAID partner Bangsamoro Autonomous Region of Muslim Mindanao (BARMM) Health, presented the results of the rapid mapping of the PSCM of FP commodities in BARMMf to the

BARMM Ministry of Health (MOH) through a video conference. This provided an opportunity to capture feedback from participants and further process the identified challenges and recommendations to help the BARMM MOH make informed decisions. With input from this meeting, MTaPS is finalizing the report of the rapid mapping to further help the BARMM MOH and USAID's BARMMHealth project set up a functioning PSCM system and ensure sustainable access to and appropriate use of safe, effective, quality-assured, and affordable essential medical products in the geographically challenged and conflict-affected BARMM region.

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATES (2020)
Prepare an advisory for the strategic role of the DOH PSCMT based on the DOH strategic refresh and emergency response situation	August
Develop PSCM and PV workforce development plan	September
Discussion/concept paper with issues and options around transition of procurement, storage, distribution, and human resources for second-line TB drugs	September
Codesigned implementation road map for eLMIS	September
Quantification of new regimen (3HP) of TB preventive treatment	September

RWANDA

With the continued global threat and challenges posed by the COVID-19 pandemic, the effects are still negatively affecting implementation of planned program activities. Working style and environment have changed, activities that require face-to-face engagement have not taken place as planned, and key government counterparts' attention has shifted to focus more on handling and managing COVID-19 cases and effects.

OBJECTIVE 1: IMPROVE PHARMACEUTICAL-SECTOR GOVERNANCE

1.1.1: Strengthen the capacity of Rwanda FDA in regulating pharmaceuticals used in HIV/AIDS, MNCH, and FP/RH programs (Activity continuing from FY19)

After instituting the Medicines Act, the Rwanda FDA required accompanying regulations and guidelines to effectively control the safety, quality, and efficacy of medicines and other health products on the market. During this quarter, MTaPS continued to support the Rwanda FDA to develop regulations and guidelines, building on the work done by USAID implementing partner GHSC-PSM. Several guidance documents required drafting, review, and validation prior to approval by the Rwanda FDA and subsequent implementation.

MTaPS provided technical support in the review of the regulations and guidelines previously drafted with support from USAID GHSC-PSM. MTaPS supported the Rwanda FDA to review two regulations related to medical product inspection and compliance:

- Regulation governing premises suitability dealing with pharmaceutical services
- Regulation governing registration and general conditions of sale of pharmaceutical products

The report on the two regulations is under review. With MTaPS' support to the Rwanda FDA, the two regulations will be validated along with other pending regulations and guidelines.

In addition, MTaPS is providing technical support in the development of the Rwanda FDA Strategic Plan and Quality Management System framework. The status of implementation is as follows:

- On the Strategic Plan, the first review report provided feedback to guide the ongoing review and development process. The feedback was shared and discussed with top management of the Rwanda FDA for concurrence on the findings and recommendations for next steps. It is expected that the final Rwanda FDA Strategic Plan will be released in August 2020.
- Regarding support for the implementation of quality management by the Rwanda FDA, MTaPS recruited a consultant to support a review of the system, conduct a situation analysis, and develop a quality manual and accompanying standard operating procedures (SOPs). The consultant is based in Tanzania and meets the MTaPS goal of promoting south-to-south technical assistance where relevant and feasible. The output to date has been the situation analysis report, which has been technically validated and is awaiting Rwanda FDA top management guidance on implementation of its recommendations.

1.1.2: Streamline registration of essential medicines and medical devices, including those used in MNCH and FP programs

Renewal of registered medicines is a mandatory regulatory function. As the Rwanda FDA is a newly established medicines regulatory agency and in line with Global Benchmarking Tool recommendations, developing and implementing guidelines on the renewal of registered medical products was a requirement. To fulfil some of the recommendations, MTaPS supported the Rwanda FDA to develop two additional guidelines:

- Guidelines on renewal of registered medical products, submitted to the Rwanda FDA for internal review before external stakeholder validation
- Guidelines on medical product manufacturing technology transfer, currently under internal review

Follow-up activities will include the Rwanda FDA's review and input on specific sections, including background information. MTaPS will then conduct a stakeholder validation workshop.

1.2.1: Enhance the capacity of pharmacy and clinical staff on managing the transition of patients to tenofovir, lamivudine, and dolutegravir (TLD) at ART sites (Activity continuing from FY19)

As part of the medicines regulatory systems strengthening support to Rwanda, which includes medicines safety monitoring, MTaPS is providing technical support to strengthen pharmacovigilance systems, starting with health care service delivery points, the Rwanda FDA, and other health programs in the country.

During this quarter, MTaPS and the Rwanda Biomedical Center (RBC) identified 10 high-volume health facilities to be supported to transition patients to TLD.

MTaPS drafted a questionnaire to obtain information to help understand the status of transitioning patients at the facilities and better target its support. The RBC reviewed the questionnaire and gave the go ahead for MTaPS to administer it. The questionnaire will be administered to a number of respondents, including prescribers, pharmacists, and RBC staff, and as an exit interview to clinic patients. The responses will be used to improve multi-month dispensing (MMD) and reporting of adverse drug reactions (ADRs) from patients on antiretroviral therapy (ART) by understanding the preferences of clients for MMD of three or six months. It will also help to identify the benefits and challenges to MMD from the perspective of patients, care providers, and programs to determine the current status of MMD rollout, including bottlenecks, and make recommendations.

Follow-up implementation activities will be fine-tuned after responses have been received to ascertain the level and status of TLD transition.

OBJECTIVE 2: STRENGTHEN GOVERNMENT CAPACITY TO MANAGE PHARMACEUTICAL SYSTEMS

2.1.1: Strengthen site-level tools for tracking and reporting patients receiving three- and six-month MMD of ARVs

In recent years, the government of Rwanda has dedicated resources to automating most services in the country to improve service delivery and pivot to e-governance. Based on the desire to ensure data security and rapid information exchange, especially on medicines safety surveillance, MTaPS is supporting the Rwanda FDA to establish an online medicines safety reporting system. The system will improve electronic medicines safety reporting, make it easy to detect any medicines safety and quality issues, and help in rapid decision making by management.

MTaPS collected data related to transitioning clients from tenofovir, lamivudine, and efavirenz (TLE) to TLD in 10 high-volume facilities. Together, the facilities have 26,125 patients on ART, 88.3% of whom are eligible to transition to dolutegravir (DTG). Of those eligible, 56% have been successfully transitioned. According the available data, 67% of ART clients in the 10 facilities are stable and enrolled on three-month MMD.

In addition, MTaPS supported the Rwanda FDA to activate the Pharmacovigilance Monitoring System (PViMS), which is currently available for use by the Rwanda FDA and its stakeholders.

The Rwanda FDA has started entering data captured in other formats into PViMS. The data entry started with Ebola vaccinations, and eventually all medicines safety data and reporting will be in PViMS.

All hospitals will report through PViMS, and the Rwanda FDA will conduct analyses of the data. To date, the following information on the Ebola vaccination program has been collected:

- 32,634 persons received the first dose
- 22,465 persons received the second dose
- 27 persons experienced adverse effects after the first dose; 3 did after the second dose
- 95 women reported getting pregnant after being vaccinated

Table 1: ADRs and Poor-Quality Medicines Reported by the Rwanda FDA

ADR REPORTS 16 TOTAL	REPORTS ON POOR QUALITY MEDICINES 42 TOTAL	COMMENTS
1- HIV on DTG+3TC+TDF 2 - malarial treatment case 8 - warfarin/rivaroxaban, including 5 fatalities 5 - cases on essential medicines	MNCH (oxytocin and magnesium sulphate) 6 batches of warfarin 34 essential medicines	The products were recalled, and quality issues include: - mislabeling - discoloring of tablets - microbial contamination

In regard to the issues with MNCH products, for oxytocin the reported information as a poor-quality product relates to mislabeling. The manufacturer never indicated storage conditions in terms of temperature on the secondary packaging material. Magnesium sulphate was also mislabeled and appeared damaged as per reports from health facilities.

The main outcome under the above sub-activity was the activation of PViMS, which is currently being utilized by the Rwanda FDA.

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

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 (Activity continuing from FY19)

With ongoing support from MTaPS to the Ministry of Health (MOH) and its stakeholders to improve the quality of health care services in health facilities through the implementation of pharmaceutical services, pharmacy accreditation standards were developed. The standards are pending approval by MOH senior management.

Based on the assumption that the standards will meet the requirements for approval by the MOH, MTaPS developed a draft plan for implementation of pharmacy standards at health facilities. The implementation plan and tools will aid in operationalization of the standards. The implementation plan has been submitted to the MOH for approval. The main deliverable under this component was the draft implementation plan.

3.1.2: Improve quality and use of medicines for pre-eclampsia, eclampsia, and postpartum hemorrhage

MTaPS has been working with the MOH and the RCB/Maternal Child and Community Health (MCCH) Division to determine strategies to improve the quality of medicines used in the management of maternal health conditions, particularly pre-eclampsia, eclampsia, and postpartum hemorrhage. The work feeds in the country's vision of significantly reducing both maternal and child mortality based on

the Sustainable Development Goals targets to reduce maternal and child mortality in low- and middle-income countries.

Working with the MOH and the RBC/MCCH Division, MTaPS has developed draft assessment tools on the management of oxytocin at health facilities and district pharmacies; the tools are pending input and validation. In addition, a number of guidelines, tools, and documents have been shared and are under review in preparation for next steps.

Under this activity, the main output has been the two draft assessment tools for the storage and management of oxytocin at facilities.

3.1.3: Improve access to and administration of oxygen to hypoxic newborns and children with pneumonia

In its current work plan, MTaPS is working with the MOH to improve access to and administration of oxygen in health facilities, beginning with a landscaping exercise.

In 2017, the MOH, with technical support from the Clinton Health Access Initiative (CHAI), conducted a situational analysis and developed a proposed action plan. CHAI, Intra Health, and other key players are currently providing technical support, with funding from the World Bank and technical guidance from WHO, for procurement of equipment as part of the COVID-19 pandemic response and support. MTaPS has been talking to these partners and the MOH to ensure complementary of approaches and support.

Under this component, the output was the stakeholder mapping and a review of the 2017 assessment report as part of the ongoing landscaping exercise. In addition, MTaPS will discuss with the MOH the importance of a coordination mechanism to align stakeholder contributions and input and offer MTaPS support to update the action plan.

3.1.4: Support management of medicines at community level

MTaPS is working with the MOH and the RBC/MCCH Division to review and address gaps in the tools used in the management of health commodities by community health workers (CHWs) and guidelines governing the process. MTaPS recently received tools and guidelines being utilized by CHWs in line with community-based health care provision and is undertaking review of the tools and guidelines to identify any gaps that require interventions and plan how to assess the implementation of the guidelines.

Under this activity, MTaPS just received the guidelines and tools from the RBC/MCCH Division, which after analysis will guide MTaPS in the next steps of implementation. A technical discussion is planned with the MCCH Division at the beginning of the next quarter.

3.1.5: Explore strategies for public-private partnerships with community pharmacies in expanding self-testing

Following the need to scale up health care services provision and increase the number of people who know their HIV status, the RBC/HIV Division rolled out the sale of oral self-test kits in community pharmacies to ease accessibility for clients. The coverage is limited to approximately 20 pharmacies in Kigali and another 35 throughout the country. There is a need to expand on the coverage and at the same time strengthen feedback mechanisms and institute monitoring and evaluation mechanisms.

a preliminary assessment by MTaPS and the RBC/HIV Division found an urgent need to improve reporting by community pharmacies to the RBC/HIV Division to facilitate planning at all levels.

The analysis further revealed that there is poor linkage of client results to health facilities for further confirmation and management in case of a reactive result. Another identified issue of concern was the current high cost of the test kit, which limits uptake and may impede realization of the global target of 95% of the population knowing their HIV status by 2030.

A key achievement by MTaPS under this activity was identification of the following strategies to guide expansion of self-test kits:

- Work with Rwanda Community Pharmacists Union to select the private pharmacies (phase one in Kigali and phase two beyond Kigali) to scale up the service
- Start with a limited scale up to allow adequate monitoring
- Provide more capacity building support to pharmacists on HIV self-testing and reporting
- Draft a memorandum of understanding between the RBC and suppliers for price reduction
- Raise awareness using media (radio and TV)

3.2.1: Support establishment of a system for active surveillance of the new DTG-based regimen and strengthen the existing spontaneous reporting system (Activity continuing from FY19)

Active surveillance is a key function of strong pharmacovigilance as part of medicines regulatory requirements. MTaPS is providing technical support to both the Rwanda FDA and the RBC/HIV Division to establish a system for active safety monitoring and reporting adverse events related to TLD.

As a medical products regulatory agency, the Rwanda FDA is mandated to regulate and monitor medical products safety. To support this, MTaPS has provided and activated PViMS.

To support the reporting and safety monitoring process under this activity, MTaPS worked with the MOH, Rwanda FDA, RBC/HIV Division, and University of Rwanda to provide technical support to develop the following deliverables that will facilitate implementation of active safety surveillance of patients taking the DTG-based regimens:

- Draft framework for active surveillance of new DTG-based ARV regimens, currently under review by the newly recruited consultant
- Draft costed multiyear national pharmacovigilance plan aligned to the Rwanda FDA Institutional Development Plan (IDP), under review

To further build and strengthen the capacity of health care providers in pharmacovigilance, MTaPS has worked with the Rwanda FDA and stakeholders to develop pharmacovigilance e-Learning courses, starting with the course outline. This will be followed by development of course content by both MTaPS and the Rwanda FDA to ensure ownership and sustainability.

ACTIVITIES FOR NEXT QUARTER	
ACTIVITY AND DESCRIPTION	DATE (2020)
Activity 1.1.1: Strengthen capacity of the Rwanda FDA in regulating pharmaceuticals used in HIV/AIDS, MNCH, and FP/RH programs 1) Finalize review of Rwanda FDA draft five-year strategic plan 2) Drafting: • Guidelines for quality audit of medical device manufacturers • Rwanda FDA quality manual with SOPs for key regulatory functions 3) Support validation workshop for the developed regulatory documents 4) Conduct training of new assessors on dossier assessment 5) PRIMS implementation plan for registering products, inspecting premises, and monitoring ADRs 6) Support Ebola vaccine data entry in PViMS and provision of initial PViMS trainings 7) Provide technical support to Rwanda FDA to develop a national products catalogue 8) Awareness and orientation report on quality management system for top management, senior management, and operational staff in key regulatory functions	July-September
1.1.2: Streamline registration of essential medicines and medical devices, including those used in MNCH and FP programs Draft the following: • Report on MTaPS support to the Rwanda FDA to sign up for the WHO Collaborative Regulatory Procedure • Guidelines and procedures on Good Review Practices • Draft list of essential medical devices	July-September
3.1.2: Improve quality and use of medicines for pre-eclampsia, eclampsia, and postpartum hemorrhage • Assessment of storage of oxytocin at both facility and hospital levels • Updated existing guidelines and tools for better storage • Analysis of use of maternal health medicines	August-September
3.1.3: Improve access to and administration of oxygen to hypoxic newborns and children with pneumonia • Report of the landscaping of supply, availability, and use of oxygen, equipment, and medical devices of the respiratory ecosystem with recommendations • Updated MOH oxygen roadmap	August
3.1.4: Support management of medicines at community level • Barriers to availability of medicines by CHWs identified • Updated tools and job aids for CHWs	August
3.2.1: Support establishment of a system for active surveillance of the new DTG-based regimen and strengthen the existing spontaneous reporting system (Activity continuing from FY19) • Develop pharmacovigilance e-Learning module • Develop a costed multiyear national pharmacovigilance plan aligned with the Rwanda FDA IDP • Technical report on ADRs for patients using ARVs and other medicines in Rwanda • Protocol, training materials, SOPs, and job aids for active surveillance of HIV medicines	July-September

SENEGAL

For progress on MTaPS/Senegal's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1: Strengthen the functionality of the One Health permanent secretary and its AMR technical working group by supporting effective coordination through regular meetings

Last quarter, MTaPS supported the revitalization of the One Health platform through several meetings organized by the One Health permanent Secretariat that aimed to establish all the required technical working groups (TWGs), starting with the antimicrobial resistance (AMR) TWG.

The AMR TWG has been institutionalized, with a chair appointed and the development of a roadmap. The first task of the TWG was to finalize and validate the One Health AMR action plan. The government Directorates involved in the annual AMR action plan carried out internal finalization and validation of their priority activities for the 2020–2021 action plan. MTaPS explored several options for organizing the validation session for the AMR annual work plan through virtual meetings; however, the pandemic context related to COVID-19 and involvement the One Health permanent Secretary in the response has delayed the process.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.3: Strengthen the capacity of health facilities for implementing infection prevention and control (IPC) programs

During this quarter, MTaPS finalized the recruitment of two IPC consultants to provide technical and human resources support to the Directorate of Hospital Hygiene and Safety Quality (DQSHH) in implementing the selected hospitals' IPC action plans.

MTaPS and the consultants supported the revision of the facilitator guide and the participant manual for IPC training in hospital settings. Both guides were initially developed in 2017 by the USAID NEEMA project but were not disseminated to the health structures and infection control committees. The drafts were reviewed, revised by MTaPS, and submitted to the Ministry of Health for institutional validation on June 29. As next steps, the DQSHH will organize a one-day review and validation with MTaPS and a technical validation of the training manual and its dissemination plan by MOH IPC stakeholders.

Training of trainers for level 1 and 2 hospitals
Photo credit: MTaPS/Senegal

In collaboration with the MOH, MTaPS and its IPC consultants supported the training of 16 IPC trainers selected from the pilot hospitals. These included four trainers (three males and one female) from the level 1 hospital of Tivaouane, four trainers (three females and one male) from the level 2 private hospital in Thiès, and eight trainers (one female and seven males) from the level 3 hospital in Dakar. These trainers were selected from the hospitals based on their basic IPC knowledge, their engagement in everyday IPC activities in the hospital, and their French communication skills. Due to government restrictions related to COVID-19, the training of trainers (TOT) was conducted in two sessions.

Training of trainers for level 3 hospital
Photo credit: MTaPS/Senegal

The first TOT session took place April 15–17 at Saint John of God Hospital and the second May 5–8 at the level 3 General Idrissa Pouye Hospital (HOGIP) for eight trainers. During both sessions, trainers were trained on IPC core components, with an emphasis on waste management practices and use of individual protection equipment in the context of COVID-19. The trainers were also oriented on the WHO multimodal approach and the use of continuous quality improvement for the implementation of IPC activities, as well as how to implement both approaches while implementing the IPC action plan.

From April 29 to 30, the trained trainers of the level 1 hospital MAAS of Tivaouane began scaling up the onsite IPC training using the updated training IPC modules, which include hand hygiene, waste management, isolation, individual protective equipment, and treatment of reusable material. The training involved eight members of the hospital's infection control committee. An MTaPS IPC consultant provided oversight and technical support for this activity. In the context of the COVID-19 pandemic, HOGIP used the trained trainers to train health care workers in the hospital's epidemiological treatment center.

From June 23 to 25, MTaPS supported the first training session of 17 health agents at the level 2 private hospital Saint John of Thiès, which was led by the onsite trained trainers and used the training materials received from the TOT mentioned above.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3: Provide technical support to formulate a national antimicrobial stewardship (AMS) plan and help improve prescribing adherence to treatment guidelines

On May 14, MTaPS signed a subcontract with a consulting firm (Cabinet IP3 Conseil) to conduct a rapid situational analysis and use its findings to develop a national AMS plan in the human, animal, and environmental health sectors. An orientation meeting was held on May 18 to review the terms of the contract and conduct a technical review of the deliverables, followed by an AMS technical orientation meeting on May 26 with the MTaPS technical strategic team to review the rapid situational analysis data collection and methodology and to suggest sharing a reporting format.

MTaPS also organized a technical stakeholder meeting on June 5 under the aegis of the MOH's Directorate of Pharmacy and Medicine to introduce Cabinet IP3 Conseil and discuss its proposed approach and detailed activities. A revised timeline of the activities and deliverables was agreed upon, including two main milestones:

- The report on the situational analysis of antimicrobial use, legislation, and control in the human, animal, and environmental health sectors will be available by July 15
- The national AMS plan will be technically validated by the AMR technical working group by September 14

Activity 4: Incorporation of IPC and AMS topics as components of safe, effective, and quality care in leadership and management training modules for policy and decision makers

On April 29, MTaPS facilitated a virtual meeting with Empower and the head of the IT/Technology Unit of the MOH, as Empower will provide technical assistance for IPC learning courses uploaded to the e-learning platform. It was agreed during the meeting that the MOH will provide Empower with access to the platform to create an e-learning model with three sessions and a short introductory video of two to three minutes. The selected modules (Standard Precautions and Hand Hygiene) provided by the MOH

were reviewed with MTaPS and Empower, and an introductory video for the e-learning process has been developed and submitted to the MOH for validation.

Empower also provided a storyboard for both modules before submitting the module developed for the first session (Standard Precautions) for review. These have been internally validated and shared with the MOH for feedback.

MTaPS is continuing to work with Empower to review the second session (Hand Hygiene), which will be shared with the MOH after internal validation.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Organize workshops on IPC protocols and procedures to be implemented by the infection control committee in each supported hospital	July–August
Organize supervision missions to evaluate the implementation of the action plans in the three selected hospitals	July
In collaboration with the DQSHH, convene a joint lessons learned workshop for the three participating hospitals and other stakeholders	August
Conduct a situational analysis of the country's antimicrobial use, legislation, and control in the human, animal, and environmental health sectors as the first step toward developing the draft national AMS plan. Once ready, the plan will be submitted to the AMR technical working group for technical validation.	July–September

TANZANIA

For progress on MTaPS/Tanzania's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1.1.1: Enhance multi-sectoral coordination to improve AMR containment

MTaPS shared the following key documents with the Multisectoral Coordination Committee (MCC) secretariat for endorsement at the next MCC meeting: terms of references (TOR) for the Infection Prevention and Control (IPC) Technical Working Group (TWG), key national IPC indicators, and strategy to oversee and monitor IPC implementation at health facilities.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 1.2.2.: Support establishment of infection control committees as sub-committees of quality improvement teams (QITs)

MTaPS provided technical support to Ministry of Health, Community Development, Gender, Elderly, and Children (hereafter referred to as MOH) to establish IPC committees as part of the hospital quality improvement team so that IPC activities can be integrated into daily activities and routine of health care workers at health facilities. So far, four out of six supported hospitals have formed the teams. Teams were oriented on their roles and responsibilities as subcommittees of the hospital quality improvement teams. These teams are responsible for strengthening the capacity of health care workers in IPC practices; monitoring and ensuring availability of personal protection equipment, injection safety devices, and related commodities; promoting advocacy and behavior change strategies to improve IPC practices; disseminating job aids and information, education, and communication (IEC) materials; and promoting appropriate health care waste management.

National IPC facilitator, Said Chibwana, demonstrating how to sterilize and package surgical instruments during IPC Mentorship in Sekou Toure Regional Referral Hospital. Photo credit: Doris Lutkam, MTaPS

Activity 2.2.1. Strengthen institutional capacity to host and manage e-learning platforms for in-service capacity-building for IPC, including updating IPC training materials

MTaPS conducted a virtual training on the basics of the Moodle platform for six tutors from the Centre for Distance Education, including site and course management. The training occurred in three sessions with a gap of two to three days in between to give time for participants to practice what they had been taught. This training will allow them to teach students when the IPC e-learning course starts.

Activity 2.2.3: Promote a self-improvement culture through local teams that use continuous quality improvement methodologies for IPC

MTaPS, in collaboration with MOH, conducted general IPC mentorship visits to the six MTaPS-supported referral hospitals on May 18-22, 2020: Mbeya Zonal, Benjamin Mkapa, Kigoma Regional, Kagera Regional, Sekou Toure Regional, and Temeke Regional. Tanzania uses the standard-based management and recognition approach as a quality improvement approach for improving IPC in the country's health facilities. All these hospitals had identified standards that had gaps after assessment, and then prioritized key standards to work on for improvement. Teams visited these hospitals to mentor on all areas that needed improvement according to their action plans; 180 health care workers from the facilities were mentored on hand washing in various service areas, health care waste management,

management of hospital linen in laundry and wards, instrument processing packaging and sterilization, and utilization of PPE.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 1.3.1: Support the development of AMS policy guidelines

MTaPS is supporting the MOH in developing AMS policy guidelines. The document was approved by the AMR MCC and has recently been approved by MOH and the Ministry of Livestock and Fisheries (MLF). Earlier during a review, MTaPS engaged experts from the Food and Agricultural Organization (FAO) and Infectious Diseases Detection and Surveillance Project, who provided technical inputs into the design and contents of the document to suit the One Health approach requirements. The document will also be approved by the Ministry of Agriculture (MOA) and will be made available on the MOH website before printing and disseminating hard copies to health care facilities, pharmacies, and other stakeholders.

Activity 2.3.1: Strengthen the capacity of the National MTC and public and private facilities to carry out AMS activities

Building on the training of the National Medicines and Therapeutics Committee (NMTC) from the previous quarter, NMTC members and AMS focal persons from MOH, with remote support from MTaPS staff, conducted AMS mentorship for 103 health care workers for MTCs in 6 supported facilities (Benjamin Mkapa Zonal, Mbeya Zonal, Temeke Regional, Kagera Regional, Sekou Toure Regional, and Maweni Regional Referral Hospitals). Mentorship was conducted June 9-12. The objective of the AMS mentorship was to build MTCs' capacity on implementing AMS activities. The commonly observed challenge was very low utilization of culture and sensitivity by clinicians; the solution identified by the MTCs was to conduct routine sensitization on the importance of conducting culture and sensitivity investigation for indicated clients prescribed with antibiotics. This sensitization will be conducted during clinical meetings. In addition, the MTCs will provide clinical leadership and promote collaborative working between senior management and IPC teams by prioritizing AMS and compliance to best practices in IPC, in both curative and preventative treatment regimes.

Activity 3.3.1: Conduct antimicrobial utilization survey to inform interventions to improve compliance with AMS guidelines

MTaPS jointly worked with the University of Washington, the MOH, and local experts from Catholic University of Health and Allied Sciences-Bugando and St. John's University to conduct data analysis and interpretation for the national antimicrobial consumption-daily defined doses (DDD) and point prevalence surveys (PPS). MTaPS worked with these key local and international experts to develop manuscripts for both surveys. For PPS, data cleaning, review, and analysis has been completed, led by a member of the national AMR surveillance committee. The process of PPS data analysis and interpretation involved a real-time collaboration and capacity building of MOH staff, and it was done through weekly calls. A manuscript titled Antimicrobial Use across Six Referral Hospitals in Tanzania was submitted to the *BMJ Global Health*.

For the DDD survey, overall, the DDD/1000/D progressively declined from 136 in 2017 to 51 in 2019. The majority of antimicrobial consumption occurred in the private sector, emphasizing the need for better regulation in the private sector. Antimicrobial use was in accordance with the AWaRe classification recommendation with over 90% in the access class, indicating appropriate use and the importance of essential medicines lists and treatment guidelines.

Activity 5.3.1: Promote community awareness and preparedness through IEC/behavior change communication activities on IPC/AMS for patients and the public

MTaPS is supporting the MOH in developing an AMR communication strategy. Recently, the document was approved by the permanent secretaries of the MOH and MLF, and it is awaiting a signature from the MOA. Once the document is fully signed, it will be disseminated to the identified stakeholders as indicated in the document. MTaPS had earlier engaged FAO experts who provided inputs into the design and contents of the document by responding to key questions.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Print and disseminate multisectoral AMR awareness strategies and AMS policy guidelines	July-August
Publish DDD survey manuscript	July
Implement AWaRe classification process	July
Support WASH implementation activity	July

UGANDA

For progress on MTaPS/Uganda's COVID-19 activities, click here.

RESULT AREA 1: EFFECTIVE MULTISECTORAL COORDINATION ON AMR

Activity 1.1.1: Work with Ugandan National AMR Sub-Committee (NAMRSC) to set up IPC and AMS technical working committees

Working with a consultant, MTaPS has started redevelopment of the information exchange platform. A layout format has been developed by the consultant and shared with the MTaPS team for input. Comments have been provided to the consultant, and a final version will be shared with the team for further review and input.

RESULT AREA 2: INFECTION PREVENTION AND CONTROL

Activity 2.5.1: Identify gaps in IPC implementation at select referral hospitals and implement action plans

During this quarter, MTaPS presented the national infection prevention and control (IPC) survey report to the Senior Management Committee of the Ministry of Health for approval. The report was discussed by the committee, and suggestions for some changes and edits were made. The edited report is to be presented again to the same committee later in July for final approval.

MTaPS continued to support the health facilities to implement continuous quality improvement action plans for IPC. The scope of support provided by MTaPS included:

- Disseminating IPC reference documents by regional referral hospitals (RRHs) to lower health facilities
- MTaPS provided technical support and coordination to RRHs to conduct a baseline assessment of IPC capacity at lower-level health facilities in the geographical areas that they support. Data collected from these assessments will be analyzed to identify areas of support for each lower-level health facility. MTaPS provided the tools for assessment and trained the hospital IPC committees on how to use the tools to conduct the assessment.

RESULT AREA 3: USE OF ANTIMICROBIAL MEDICINES OPTIMIZED

Activity 3.1.1: Work with National Drug Authority and Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) to update the EML for veterinary use and develop guidelines on the use of antimicrobials in the animal sector

MTaPS completed regional consultative meetings for input of veterinary practitioners into the veterinary essential medicines list (EML) and the guidelines on IPC and appropriate use of antimicrobials in the animal sector. These consultative meetings were held using e-consultations. Subsequently the documents were shared with the AMR technical team at the MAAIF for review and input. Following this meeting, the documents were approved by the MAAIF with a few edits recommended. Another meeting for validation by national-level stakeholders was organized by the MAAIF with support from MTaPS. In this meeting, the documents were presented and validated. Comments and suggestions from national stakeholders were captured over a two-week period, and the documents are undergoing a final round of editing and proof reading for factual accuracy. Six documents that contribute to AMR control have been developed by the MAAIF with support from MTaPS:

1) Uganda Veterinary Essential Medicines List 2020–2025
2) Guidelines for Infection Prevention and Appropriate Antimicrobial Use in Animal Sector: Pig farming
3) Guidelines for Infection Prevention and Appropriate Antimicrobial Use in Animal Sector: Poultry farming
4) Guidelines for Infection Prevention and Appropriate Antimicrobial Use in Animal Sector: Goat and sheep farming
5) Guidelines for Infection Prevention and Appropriate Antimicrobial Use in Animal Sector: Fish farming
6) Guidelines for Infection Prevention and Appropriate Antimicrobial Use in Animal Sector: Cattle farming

Activity 3.2.1: Set up centers of excellence for AMS in select referral hospitals

MTaPS continued to support the health facilities to implement the plans of action developed following the baseline assessment. MTaPS-supported health facilities hold quarterly AMS committee meetings. Actions recommended from the meetings include the need for more capacity building (training) activities by MTaPS for health workers.

MTaPS also completed mapping the AMS implementing partners on behalf of the Ministry of Health, Pharmacy Division. This list has been shared with the Ministry of Health for further action, including organizing a stakeholder meeting to review progress of the National AMS program.

Activity 3.3.1: Work with the National Drug Authority (NDA) to establish the data and information platform for national-level activities aimed at monitoring the use of antimicrobials

In March 2020, MTaPS received from the NDA a dataset extracted from the NDA Management Information System to facilitate the identification and standardization of the dataset that will subsequently be used to monitor the number of antibiotics imported into and manufactured in Uganda. Analysis of the data showed the lack of use of a standardized coding system for capturing the data and non-linkage between manually and digitally collected data, leading to loss of key information. MTaPS followed up the technical report submitted to the NDA with the development of a draft framework and SOPs for monitoring volumes of antimicrobials imported into the country. This framework has been shared with the NDA for review and approval.

Activity 3.5.1: Increase AMR awareness in the animal sector

MTaPS provided technical support to the MAAIF to complete the development of key messages on AMR in the agricultural sector. These messages have undergone a technical review and approval by the Ministry. Key messages targeting each of the following categories of stakeholders have been developed: livestock farmers (owners), herdsmen, pet owners, traders (pharmaceutical products suppliers/operators of drug outlets), veterinary practitioners (public and private), extension workers, trainers of veterinary professionals, veterinary students, researchers, media, policy makers, and the general public. MTaPS will provide further support in printing and disseminating these messages.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATES (2020)
MTaPS will continue working with the consultant and MOH/NAMRSC to complete the information exchange platform.	Sept
All input from the national validation meeting has been captured. MTaPS will now work with the editorial team to undertake an editorial review of the documents prior to submission to the MAAIF for signing and printing.	July
Support supervision of IPC work being done at MTaPS-supported health facilities	Sept
MTaPS will submit the final MAAIF-approved messages on AMR in the animal sector to the editorial team for edits prior to printing and dissemination.	July
Conduct support supervision to monitor progress on the facility improvement plans	Sept
Support the quarterly NAMRSC meeting of the OHP	Sept
Support the quarterly AMS TWC meeting	Sept
Support the quarterly IPC TWC meeting	Sept
Support two monthly IPC and MTC/AMS committee meetings	Sept
Compile all the input from NDA and MOH technical officers and prepare a draft	Aug

MONITORING, EVALUATION, AND LEARNING

MONITORING AND EVALUATION

Indicators review

This quarter, a technical review of indicators and their use in each country was conducted to address gaps, including several indicators not being measured in any MTaPS-supported countries despite being relevant to the country work plans. Following the review, the monitoring, evaluation, and learning (MEL) team generated a list of recommendations. PIRS were created for the new COVID-19 indicators. Two gender indicators and their accompanying PIRS will be finalized and implemented next quarter. The MEL team will work with regional and field offices to support them to integrate relevant indicators into their MEL plans and to report on those indicators.

Support for country MEL plans and work plans

A country MEL plan template with stock language was drafted to guide teams in developing their country MEL plans. The draft template will be shared with the COR team at the beginning of next quarter for their review before it is finalized. The MEL team supported the development of country MEL plans for Rwanda and Nepal. The remaining country MEL plans will continue to be reviewed and submitted to their respective USAID Missions on an ongoing basis.

The MEL team also drafted stock language for MEL activities to guide country teams in work plan development. The MEL team will closely review indicators of each country's work plan to ensure all relevant indicators are reported and standardized across activities.

Sentinel sites concept

The MEL team drafted a concept for establishing sentinel sites for intensive monitoring and detailed reporting on selected key MTaPS activities. The purpose of monitoring sentinel sites is to better understand the effectiveness of the approaches of select MTaPS interventions that are not captured by standard MTaPS indicators. The draft concept note was reviewed internally with the senior management team. The final draft will be shared with the COR team for feedback before it is implemented. The countries, sites, and indicators for sentinel site monitoring will be completed next quarter. Knowledge gained from this intensive monitoring will be used to develop and refine strategies for implementing key MTaPS activities across the project.

Baseline assessment report

The global baseline report, including 16 individual country baseline reports as an annex, was submitted to USAID in June for final review and feedback. The MEL team held an after-action review on the baseline activity. The review highlighted several key lessons:

- Adequate allocation of time is needed for in-country approvals to collect data on long-term outcome indicators
- Close involvement of technical teams throughout the exercise, especially during the design stage, allows for smoother, comprehensive implementation
- In some cases, revising indicators/PIRS during and after baseline activities did not disrupt reported values when "old" indicator definitions could be mapped to the "new," but overall indicators should be finalized in advance to avoid "blank" values and squandered resources
- Establishing and adhering to assessment SOPs are crucial for understanding roles and responsibilities and clearly describing the baselines process

MTaPS data collection, management, and analytics platform development

The MTaPS SurveyCTO server's programming continued with a list of health facilities with respective locations, type, and tier incorporated into the server. COVID-19 response indicators and data collection forms were added to the server. Additionally, Power BI reporting templates and dashboards are under development. A SurveyCTO training session was held in June for country team staff responsible for data entry and quality assurance to begin using SurveyCTO for COVID-19 indicator reporting in July. The comprehensive MTaPS Data Management and Analysis Platform will be deployed to field offices early next quarter; the plan is to have field offices use the system to report MEL data going forward and subsequently report all other indicators during the project's lifetime.

LEARNING ACTIVITIES

MTaPS facilitated learning activities to increase pharmaceutical system awareness and visibility and establish, through MTaPS' work, USAID's thought leadership in the PSS space.

- A series of nine internal capacity-building training sessions on PSS and consultancy were delivered using the MTaPS Learning Hub via Moodle. The purpose of the series was to update and standardize staff knowledge on PSS and to improve staff providing technical assistance to improve health outcomes.

Lessons Learned

MTaPS-supported countries continued to face delays and challenges in implementing and coordinating activities due to COVID-19. Restrictions on in-person meetings and limited bandwidth of government counterparts supporting the national response reaffirmed the importance of adaptable programming to continue implementing activities.

The COVID-19 pandemic and resulting restrictions on in-person contact reveals the many activities that can still be implemented virtually by using business communication tools and methods. This is demonstrated through distance-learning platforms, such as Moodle and WebEx that have been used to administer learning modules and participate in capacity-building trainings. Although these tools have assisted with adapting to the COVID-19 environment, there are still challenges with virtual and remote work. Internet access can be limited, slow, or even shutdown during periods of the day. There are also limitations to conducting simple tasks remotely that are easily accomplished in group settings. Therefore, concessions will still need to be made for in-person activities when necessary.

Activities from COVID-19 programs can be harnessed to build partnerships and strengthen interventions in IPC for GHSA-supported programs. Demonstrating alignment between GHSA and COVID-19 programs is important for building mutual understanding and allows GHSA activities in IPC to be better supported by the MOH due to the urgency of COVID-19 response activities.

Emergency response and roles should be routinely streamlined in any standard role guidance by all units of the Department of Health (DOH). In the Philippines, the continued COVID-19 emergency challenged the DOH procurement and supply chain management (PSCM) team to redefine their roles according to COVID-19 and non-COVID-19 activities. MTaPS/Philippines conducted a series of virtual meetings with PSCM team to discuss a PSCM contingency plan during the COVID-19 emergency and associated roles that PSCM team could play, particularly on continuing their role in strengthening PSCM stewardship, performance oversight, policy making, and building the capacity of LGUs, both during an emergency and in regular situations to ensure access to medical products at health facilities.

The use of explicitly defined pharmaceutical benefit packages that identify and quantify the use of drugs by beneficiary populations, create legal entitlements to that package, and outline financing arrangements for the included drugs is somewhat limited in Asia. This is based on MTaPS' analysis of how 12 countries in the Asia region define pharmaceutical benefit packages for 19 different coverage schemes. The analysis

outlined four major modalities that the analyzed countries used to define drug benefits. Although countries use multiple mechanisms for covering drugs under different schemes (e.g., using EMLs to guide procurement and distribution), there should be stronger consideration of how countries can create explicit pharmaceutical benefit packages that outline legal entitlements and financing arrangements for drugs, especially for countries that have more advanced coverage arrangements, such as national health insurance schemes. The analysis revealed that there is significant variation in how countries define pharmaceutical benefits; for example, insurance-based coverage arrangements did not uniformly use explicit pharmaceutical benefit packages to set drug benefits but used a range of different approaches. Understanding how countries compare to one another can help countries within the region understand the relative strengths and weakness of these approaches, and how shifting to more explicitly defined pharmaceutical benefit packages—coupled with the appropriate use of priority-setting and decision-making processes, such as HTAs—can help countries make progress toward UHC goals. The analysis of select countries in the Asia region is a new contribution to this field and could facilitate regional learning on the different models—and their relative strengths and weaknesses—for creating legal entitlements to drug benefits. Engaging countries within the region to better understand the practical experiences in using these approaches is an area for deeper regional learning to influence policy and practice.

KNOWLEDGE MANAGEMENT

Knowledge Management (KM) Rapid Assessment

MTaPS developed and rolled out a KM rapid assessment questionnaire to country teams. The responses will be used to identify areas (systems, processes, and capacity) that need strengthening to improve KM support from the Arlington office. Responses are still being collected and this activity will be finalized early next quarter.

Knowledge Sharing

As part of its PSS in action knowledge sharing series, MTaPS held a webinar in this quarter for USAID staff on the Global Benchmarking Tool and its application in supported countries. Representatives from MTaPS, the Bill & Melinda Gates Foundation, and USAID PQM+ project presented.

Please refer to Cross Bureau, activity 2 for a full description of MTaPS technical documentation and knowledge sharing.

Collaboration, Learning, and Adaptation Guide

MTaPS drafted guidance for staff on how to apply and integrate the principles of collaboration, learning and adaptation (CLA) in project implementation. The guide will be finalized and rolled out in English and French next quarter.

Key Audiences Survey

The MTaPS audience survey questions were drafted to better understand PSS information and knowledge needs of key audiences, namely, USAID Mission staff and government stakeholders in MTaPS-supported countries. Survey results will inform development of knowledge products for the next fiscal year. The online survey will be finalized and administered next quarter.

ACTIVITIES FOR NEXT QUARTER

ACTIVITY AND DESCRIPTION	DATE (2020)
Support country teams to finalize MEL plans	September
Facilitate monthly M&E sessions for MTaPS' country teams	July-September
MTaPS Data Management and Analysis System - Finalize testing and deploy	July
Open data compliance and submission -Develop and share guidance	September
Key audiences survey - Survey administration, analysis, and dissemination of findings	September
CLA guidance - Finalize and roll out	September
Lessons learned - Capture and analyze lessons learned from implementation	September
Technical documentation - Support country teams to develop technical documentation	September
Publications guidance - Develop and roll out	September

ANNEX 1. MTAPS INDICATOR TRACKING TABLE

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
	Objective 1: Pharmaceutical-Sector Governance Strengthened								
	Sub-Objective 1.2: Evidence-Based Medicines Policies, Laws, Regulations, Guidelines, Norms, and Standards Improved and Enforced								
MT 1.2.2	# of pharmaceutical regulatory enforcement mechanisms established	Semi-annually	0	TBD	TBD	0			0
	Bangladesh		0	TBD	TBD	0			0
	Mozambique		0	TBD	TBD	0			0
	Rwanda		0	TBD	TBD	0			0
MT 1.2.3	% of established pharmaceutical regulatory enforcement mechanisms that are functional	Semi-annually	0	TBD	TBD	0% (0/0)			0% (0/0)
	Bangladesh		0	TBD	TBD	0% (0/0)			0% (0/0)
	Mozambique		0	TBD	TBD	0% (0/0)			0% (0/0)
	Rwanda		0	TBD	TBD	0% (0/0)			0% (0/0)
	Objective 2: Institutional and Human Resource Capacity for Pharmaceutical Management and Services Increased, Including Regulation of Medical Products								
	Sub-Objective 2.1: Innovative and Proven Approaches for Human Resource Capacity Building Institutionalized								
MT 2.1.2	# of MTaPS-supported health professional training curricula developed or revised to address pharmaceutical management topics	Semi-annually	0	TBD	TBD	2			2
	Bangladesh		0	TBD	TBD	2			2
	Sub-Objective 2.2: Capacity of Government to Manage Pharmaceutical Systems Strengthened								
MT 2.2.2	# of persons trained in pharmaceutical management	Quarterly	0	TBD	TBD	**F** 174	**M** 417	**F** 67	**M** 347	**F** 37	**M** 28	1,070
	Bangladesh		0	TBD	TBD	**F** 174	**M** 417	**F** 55	**M** 315	**F** 0	**M** 0	961
	Mozambique		0	TBD	TBD	**F** 0	**M** 0	**F** 0	**M** 0	**F** 37	**M** 28	65
	Rwanda		0	TBD	TBD	**F** 0	**M** 0	**F** 12	**M** 32	**F** 0	**M** 0	44
		Quarterly	0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	65

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result		FY20Q2 Result		FY20Q3 Result		FY20 Cumulative Result
MT 2.2.4	# of people successfully completing MTaPS-developed e-learning courses					0	0	0	0	37	28	
	Bangladesh		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	0
			0	TBD	TBD	0	0	0	0	0	0	
	Mozambique		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	65
						0	0	0	0	37	28	
	Rwanda		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	0
						0	0	0	0	0	0	
	Objective 3: Availability and Use of Pharmaceutical Information for Decision Making Increased and Global Learning Agenda Advanced											
	Sub-Objective 3.1: Pharmaceutical Management Information Systems that Are Interoperable and Link Patients and Products Effectively Implemented											
MT 3.1.1	# and % MTaPS-supported health facilities that have implemented pharmaceutical management information system (PMIS) to document specific components of the pharmaceutical system for analysis and reporting	Semi-annually				63% (1059/1693)						63% (1059/1693)
	Bangladesh		90% (104/115)	TBD	TBD	90% (37/41)						90% (37/41)
	Mozambique		62% (1022 /1652)	TBD	TBD	62% (1022/1652)						62% (1022/1652)
	Rwanda		TBD	TBD	TBD	0% (0/0)						0% (0/0)
MT 3.1.2	# and % of MTaPS-supported health facilities using interoperable PMIS tools	Semi-annually	TBD	TBD	TBD	0						0
	Bangladesh		61% (70/115)	TBD	TBD	94% (3827/4291)						94% (3827/4291)
	Mozambique		TBD	TBD	TBD	0						0
	Objective 3: Availability and Use of Pharmaceutical Information for Decision Making Increased and Global Learning Agenda Advanced											
	Sub-Objective 3.2: Information on Pharmaceutical Systems Available and Used											
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	TBD	TBD	TBD	98% (500/509)		92% (4,184/ 4,545)		89% (4053/4542)		89% (4053/4542)

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
	Bangladesh		74.3% (84/ 115)	TBD	TBD	98% (500/509)	92% (4,184/ 4,545)	89% (4053/4542)	89% (4053/4542)
	Objective 4: Pharmaceutical-Sector Financing, Including Resource Allocation and Use, Optimized								
	Sub-Objective 4.2: Evidence-Based Medicines Strategies and Pharmacy Benefits Programs Developed and Implemented								
MT 4.2.3	# of strategic plans developed or updated to address pharmaceutical costs and financing	Semi-annually	0	TBD	TBD	2			2
	Bangladesh		0	TBD	TBD	2			2
	Objective 5: Pharmaceutical Services, Including Product Availability and Patient-Centered Care, to Achieve Health Outcomes Improved								
	Sub-Objective 5.1: Increased availability of essential medicines and other health technologies								
MT 5.1.2	% of tracer products stocked according to plan	Semi-annually	TBD	TBD	TBD				
	Bangladesh		TBD	TBD	TBD	*Male Condom:*100% (27851/27851)			*Male Condom:*100% (27851/27851)
						Oral Pills: 99% (27878/27886)			*Oral Pills:* 99% (27878/27886)
						Injectables: 99% (27394/27405)			*Injectables:* 99% (27394/27405)
						IUD: 99% (5203/5212)			*IUD:* 99% (5203/5212)
						Implant: 99% (801/813)			*Implant:* 99% (801/813)
	Sub-Objective 5.3: Patient Safety and Therapeutic Effectiveness Ensured								
MT 5.3.1	% of MTaPS-supported health facilities that have implemented medicines safety activities	Quarterly	TBD	TBD	TBD	31% (31/100)	53% (35/66)	34% (28/83)	34% (28/83)
	Bangladesh		TBD	TBD	TBD	31% (31/100)	*Data not available*	14% (7/50)	14% (7/50)
	Mozambique		TBD	TBD	TBD	0% (0/0)	90% (9/10)	90% (9/10)	90% (9/10)
	Rwanda		TBD	TBD	TBD	0% (0/0)	46% (26/56)	52% (12/23)	52% (12/23)

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
MT 5.3.2	% of adverse drug events (ADEs) reported and reviewed in MTaPS-supported health facilities	Semi-annually	TBD	TBD	TBD	68% (95/139)			68% (95/139)
	Bangladesh		TBD	TBD	TBD	68% (95/139)			68% (95/139)
	Mozambique		TBD	TBD	TBD	*Data not available for this period*			
	Rwanda		TBD	TBD	TBD	*Data not available for this period*			
	Sub-Objective 5.4: Antimicrobial Resistance Containment Supported								
MT 5.4.2	% of MTaPS-supported health facilities implementing locally identified and prioritized core elements of infection prevention and control activities	Semi-annually	TBD	TBD	TBD	0% (0/0)			0% (0/0)
	Mozambique		TBD	TBD	TBD	0% (0/0)			0% (0/0)
MT 5.4.3	# of AMR-related in-country meetings or activities conducted with multisectoral participation	Quarterly	TBD	TBD	TBD	1	2	0	3
	Bangladesh		TBD	TBD	TBD	1	0	0	0
	Mozambique		TBD	TBD	TBD	0	2	0	2
	MTaPS Global Health Security Agenda (GHSA) Indicators								
	Result Area 1: Effective multisectoral coordination on AMR								
	Result 1.1: Governance for multisectoral coordination (MSC) strengthened								
MSC 1	# of AMR-related in-country meetings or activities conducted with multisectoral participation	Quarterly	TBD	TBD	TBD	38	26	28	92
	Bangladesh		TBD	TBD	TBD	0	1	0	1
	Burkina Faso		TBD	TBD	TBD	1	1	5	7
	Cameroon		TBD	TBD	TBD	3	1	3	7
	Côte d'Ivoire		TBD	TBD	TBD	4	5	7	16
	DRC		TBD	TBD	TBD	1	1	4	6
	Ethiopia		TBD	TBD	TBD	3	3	*	6

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
	Jordan		TBD	TBD	TBD	0	0	0	0
	Kenya		TBD	TBD	TBD	14	7	2	23
	Mali		TBD	TBD	TBD	7	1	4	12
	Senegal		TBD	TBD	TBD	1	2	0	3
	Tanzania		TBD	TBD	TBD	1	1	0	2
	Uganda		TBD	TBD	TBD	3	3	3	9
MSC 2	# and % of female participants in meetings or other events organized by the multisectoral body on AMR	Semi-annually	TBD	TBD	TBD	35% (256/725)			35% (256/725)
	Burkina Faso		18% (3/17)	TBD	TBD	22% (6/27)			22% (6/27)
	Cameroon		50% (2/4)	TBD	TBD	39% (39/101)			39% (39/101)
	Côte d'Ivoire		37% (21/55)	TBD	TBD	38% (21/55)			38% (21/55)
	DRC		34% (14/41)	TBD	TBD	35% (31/88)			35% (31/88)
	Ethiopia		24% (7/31)	TBD	TBD	17% (16/93)		*	17% (16/93)
	Kenya		66% (28/44)	TBD	TBD	54% (66/123)			54% (66/123)
	Mali		15% (3/20)	TBD	TBD	16% (20/124)			16% (20/124)
	Senegal		TBD	TBD	TBD	58% (54/93)			58% (54/93)
	Tanzania		14% (3/21)	TBD	TBD	14% (3/21)			14% (3/21)
	Result 1.2: Capacity for multisectoral coordination on antimicrobial resistance (AMR) increased								
MSC 5	# of persons trained in AMR topics	Quarterly	0	TBD	TBD	**F** 10	**M** 30	**F** 54	**M** 94	**F** 0	**M** 0	188
	Côte d'Ivoire		0	TBD	TBD	**F** 0	**M** 0	**F** 4	**M** 20	**F** 0	**M** 0	24
	Ethiopia		0	TBD	TBD	**F** 10	**M** 30	**F** 47	**M** 47	**F** *	**M** *	134
	Mali		0	TBD	TBD	**F** 0	**M** 0	**F** 3	**M** 27	**F** 0	**M** 0	30
	Result Area 2: Infection Prevention and Control Improved and Functional								
	Result 2.2: Institutional and HR capacity to manage IPC strengthened								
						F	**M**	**F**	**M**	**F**	**M**	

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result		FY20Q2 Result		FY20Q3 Result		FY20 Cumulative Result
IP 2	# of persons trained in IPC	Quarterly	0	TBD	TBD	175	131	91	66	163	119	745
	Bangladesh		0	TBD	TBD	**F** 0	**M** 0	**F** 0	**M** 0	**F** 0	**M** 0	0
	Cameroon		0	TBD	TBD	**F** 5	**M** 5	**F** 0	**M** 0	**F** 5	**M** 10	25
	Kenya		0	TBD	TBD	**F** 40	**M** 26	**F** 50	**M** 46	**F** 58	**M** 29	249
	Tanzania		0	TBD	TBD	**F** 130	**M** 100	**F** 41	**M** 20	**F** 100	**M** 80	471
	Result 2.3: IPC-related information available and used for decision-making, and global learning agenda advanced											
IP 3	# and % of MTaPS-supported health facilities that are using standardized tool(s) for monitoring IPC and informing programmatic improvement	Quarterly	TBD	TBD	TBD	13% (5/40)		63% (25/40)		89% (8/9)		89% (8/9)
	Bangladesh		TBD	TBD	TBD	0% (0/0)		0% (0/0)		0% (0/0)		0% (0/0)
	Ethiopia		TBD	TBD	TBD	0% (0/31)		52% (16/31)		*		*
	Senegal		TBD	TBD	TBD	100% (3/3)		100% (3/3)		66% (2/3)		66% (2/3)
	Tanzania		TBD	TBD	TBD	33% (2/6)		100% (6/6)		100% (6/6)		100% (6/6)
	Result 2.5: IPC practices and services improved											
IP 5	# and % of MTaPS-supported health facilities implementing continuous quality improvement (CQI) to improve IPC	Quarterly	TBD	TBD	TBD	10% (41/405)		10% (41/411)		8% (32/380)		8% (32/380)
	Cameroon		TBD	TBD	TBD	0% (0/0)		0% (0/6)		0% (0/6)		0% (0/6)
	Côte d'Ivoire		TBD	TBD	TBD	50% (2/4)		50% (2/4)		50% (2/4)		50% (2/4)
	Ethiopia		68% (21/31)	TBD	TBD	68% (21/31)		68% (21/31)		*		*
	Kenya		0% (0/16)	TBD	TBD	100% (16/16)		100% (16/16)		100% (16/16)		100% (16/16)
	Mali		TBD	TBD	TBD	0% (0/5)		0% (0/5)		0% (0/5)		0% (0/5)
	Senegal		TBD	TBD	TBD	0% (0/3)		0% (0/3)		33% (1/3)		33% (1/3)

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
	Tanzania		TBD	TBD	TBD	33% (2/6)	33% (2/6)	100% (6/6)	100% (6/6)
	Uganda		TBD	TBD	TBD	0% (0/340)	0% (0/340)	2% (7/340)	2% (7/340)
IP 6	# and % of MTaPS-supported health facilities with functional IPC committees	Quarterly	TBD	TBD	TBD	11% (45/405)	14% (58/411)	9% (35/380)	9% (35/380)
	Cameroon		TBD	TBD	TBD	0% (0/0)	0% (0/6)	0% (0/6)	0% (0/6)
	Côte d'Ivoire		TBD	TBD	TBD	100% (4/4)	100% (4/4)	100% (4/4)	100% (4/4)
	Ethiopia		97% (30/31)	TBD	TBD	68% (21/31)	87% (27/31)	*	*
	Kenya		0% (0/16)	TBD	TBD	100% (16/16)	100% (16/16)	100% (16/16)	100% (16/16)
	Mali		TBD	TBD	TBD	0% (0/5)	0% (0/5)	0% (0/5)	0% (0/5)
	Senegal		TBD	TBD	TBD	100% (3/3)	100% (3/3)	100% (3/3)	100% (3/3)
	Tanzania		TBD	TBD	TBD	17% (1/6)	17% (1/6)	83% (5/6)	83% (5/6)
	Uganda		TBD	TBD	TBD	0% (0/340)	2% (7/340)	2% (7/340)	2% (7/340)
	Result Area 3: Use of anti-microbial medicines is optimized								
	Result 3.2: Institutional and HR capacity to manage AMS strengthened								
AS 2	# and % of health facilities' MTC/AMS committees or other relevant groups that implemented AMS improvement plans and/or monitoring framework in the reporting period	Quarterly	TBD	TBD	TBD	5% (19/362)	6% (23/364)	8% (31/366)	8% (31/366)
	Jordan		TBD	TBD	TBD	0% (0/0)	0% (0/2)	0% (0/2)	0% (0/2)
	Kenya		6% (1/16)	TBD	TBD	100% (16/16)	100% (16/16)	100% (18/18)	100% (18/18)
	Tanzania		TBD	TBD	TBD	0% (0/6)	0% (0/6)	100% (6/6)	100% (6/6)
	Uganda		TBD	TBD	TBD	0.8% (3/340)	2% (7/340)	2% (7/340)	2% (7/340)
AS 3	# of persons trained in AMS topics	Quarterly	0	TBD	TBD	**F** 49 / **M** 50	**F** 31 / **M** 23	**F** 91 / **M** 70	314

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result		FY20Q2 Result		FY20Q3 Result		FY20 Cumulative Result
	Bangladesh		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	0
						0	0	0	0	0	0	
	Côte d'Ivoire		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	0
						0	0	0	0	0	0	
	Kenya		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	165
						49	50	20	7	21	18	
	Tanzania		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	114
						0	0	11	16	50	37	
	Uganda		0	TBD	TBD	**F**	**M**	**F**	**M**	**F**	**M**	35
						0	0	0	0	20	15	
	Result 3.5: Practices and services for AMS improved											
AS 4	# and % of MTaPS-supported health facilities implementing continuous quality improvement (CQI) to improve AMS in the reporting period	Quarterly	TBD	TBD	TBD	6% (25/403)		9% (39/414)		11% (39/354)		11% (39/354)
	Burkina Faso		TBD	TBD	TBD	0% (0/0)		100% (4/4)		100% (5/5)		100% (5/5)
	Cameroon		TBD	TBD	TBD	0% (0/0)		0% (0/6)		0% (0/6)		0% (0/6)
	Côte d'Ivoire		TBD	TBD	TBD	0% (0/0)		0% (0/0)		0% (0/0)		0% (0/0)
	DRC		TBD	TBD	TBD	0% (0/0)		100% (1/1)		100% (3/3)		100% (1/1)
	Ethiopia		16% (5/31)	TBD	TBD	3% (1/31)		13% (4/31)		*		*
	Kenya		6% (1/16)	TBD	TBD	100% (18/18)		100% (18/18)		100% (18/18)		100% (18/18)
	Mali		TBD	TBD	TBD	0% (0/5)		0% (0/5)		0% (0/5)		0% (0/5)
	Senegal		TBD	TBD	TBD	0% (0/3)		0% (0/3)		0% (0/3)		0% (0/3)
	Tanzania		TBD	TBD	TBD	0% (0/6)		0% (0/6)		100% (6/6)		100% (6/6)
	Uganda		TBD	TBD	TBD	2% (6/340)		2% (7/340)		2% (7/340)		2% (7/340)
	Jordan Custom Indicators											

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
JD 2	% of MTaPS-supported facilities that develop, adopt, and implement AMS-related services standards	Quarterly	0	TBD	TBD	0% (0/0)	0% (0/2)	100% (2/2)	100% (2/2)
	Philippines Custom Indicators								
PP 1	% of service delivery points with stock out of FP, TB and HIV-AIDS tracer commodities	Quarterly							
	First line TB meds (4 FDC)		40.5%	TBD	TBD	0% (0/0)	69% (1386/2016)	30% (472/1552)	30% (472/1552)
	TB Pediatric Med (4FDC)		90.6%	TBD	TBD	0% (0/0)	100% (155/155)	97% (856/883)	97% (856/883)
	TB Preventive Treatment (for children)		63.8%	TBD	TBD	0% (0/0)	100% (518/518)	65% (645/987)	65% (645/987)
	TB Second Line Drug (Levofloxacin 500mg)		TBD	TBD	TBD	0% (0/0)	75% (149/199)	53% (105/199)	53% (105/199)
	TB Second Line Drug (Moxifloxacin 400mg)		TBD	TBD	TBD	0% (0/0)	95% (190/199)	5% (9/199)	5% (9/199)
	TB Second Line Drug (Linezolid 600mg)		TBD	TBD	TBD	0% (0/0)	83% (165/199)	12% (24/199)	12% (24/199)
	TB Second Line Drug (Bedaquiline)		TBD	TBD	TBD	0% (0/0)	83% (164/199)	13% (25/199)	13% (25/199)
	GeneXpert Cartridges		TBD	TBD	TBD			3% (13/395)	3% (13/395)
	FP Injectable		30.2%	TBD	TBD	0% (0/0)	44% (713/1631)	12% (218/1775)	12% (218/1775)
	FP Implant		52.7%	TBD	TBD	0% (0/0)	89% (875/984)	55% (717/1316)	55% (717/1316)
	FP Oral COC		25.6%	TBD	TBD	0% (0/0)	42% (693/1633)	8% (143/1798)	8% (143/1798)
	FP Oral POP		69.3%	TBD	TBD	0% (0/0)	83% (923/1118)	31% (507/1630)	31% (507/1630)
	IUD		36.7%	TBD	TBD	0% (0/0)	50% (477/962)	29% (454/1566)	29% (454/1566)
	Male condom		38.9%	TBD	TBD	0% (0/0)	52% (825/1578)	21% (358/1743)	21% (358/1743)
PP 5	% of PSCM workforce in the public sector (DOH and LGUs) certified in Supply Chain Management	Quarterly	0%	TBD	TBD	0% (0/0)	0% (0/0)	0% (0/0)	0% (0/0)
PP 6	% of USG supported sites using eLMIS for procurement and supply chain management	Quarterly	0%	TBD	TBD	0% (0/0)	0% (0/0)	0% (0/0)	0% (0/0)

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
PP 11	% of storage facilities inspected in the USG supported sites that met minimum requirements for good storage practice for TB, FP and HIV-AIDS tracer products	Quarterly	TBD	TBD	TBD	0% (0/0)	0% (0/0)	0% (0/0)	0% (0/0)
PP 14	% of PSCM and PV health workers who received in-service training using non-traditional learning platforms for continuous professional development (CPD) on PSCM and PV	Quarterly	*Not available*	TBD	TBD	0% (0/0)	0% (0/0)	0% (0/0)	0% (0/0)
PP 15	% of selected facilities using PViMS for active surveillance of TB commodities	Quarterly	0%	TBD	TBD	0% (0/0)	0% (0/0)	0% (0/0)	0% (0/0)
	Rwanda Custom Indicators								
RW 1	% of applicants for registration and premises licensing whom, prior to submitting their application, already know about the existence of the regulatory framework for medicine registration and premises licensing.	Semi-annually	TBD	TBD	TBD	*Data are not available for this period*			
	MTaPS Multi-Country Custom Indicators								
MCC 1	% of MTaPS-supported health facilities with activities that support locally identified and prioritized elements of antimicrobial stewardship	Semi-annually	TBD	TBD	TBD	100% (7/7)			100% (7/7)
	Mozambique		TBD	TBD	TBD	100% (7/7)			100% (7/7)
MCC 3	Country has documented progress in the Maturity Level of the Medicine Regulatory Agency since last assessment using the WHO Global Benchmarking Tool (% increase since last assessment)	Semi-annually	TBD	TBD	TBD				
	Mozambique		TBD	TBD	TBD	*No assessment this period*			
	Rwanda		TBD	TBD	TBD	*No assessment this period*			

Code	Performance Indicator	Reporting Frequency	Baseline Value	LOP Target	FY20 Target	FY20Q1 Result	FY20Q2 Result	FY20Q3 Result	FY20 Cumulative Result
MCC 4	% of health facilities (HF) that implemented non-PMIS web-based/electronic or mobile technology to document, analyze, and/or report on specific components of the pharmaceutical system, including logistic and patient data	Semi-annually	TBD	TBD	TBD	53% (26/56)			53% (26/56)
	Mozambique		TBD	TBD	TBD	0% (0/0)			0% (0/0)
	Rwanda		TBD	TBD	TBD	53% (26/56)			53% (26/56)

*MTaPS Ethiopia was not able to report Q3 data before the deadline due to internet shutdown across the country in July 2020.