

Table 1: Overview

**Project description**

Project: Preventive Approaches to Containment of AMR (ID: 00124994)

Duration: 29 months (1st December 2020 to 25th May 2023)

Activities under the MPTF project focus on strengthening AMR governance and coordination between and within Government Ministries and their stakeholders in regulating AMU in the human and animal health sectors and increasing public awareness and advocacy. In 2023, key activities include:

- Scale up enforcement of regulation along the supply and distribution chain of antimicrobials in human and animal health
- Strengthening Inter-Ministerial Coordination Committee on AMR.
- Capacity building health workers on infection prevention and control as well as rolling out national AMS guidelines in healthcare facilities.
- Develop a reporting system and database to support county level antimicrobial consumption in humans and Improve reporting on AMU in animals.
- Undertake KAP surveys.
- Improved capacity to design awareness raising behaviour change and educational activities.

***Specific activities that contributed to these output areas are :***

1. Conducted a midterm assessment of the AMR MPTF project.
2. The Directorate of Veterinary Services (DVS) started drafting of legal notices to prohibit the use of antimicrobials as growth promoters and to restriction of the use of critically important antimicrobials (Fluoroquinolones, third and fourth generation Cephalosporins and Colistin) without a risk analysis.
3. Supported the Veterinary Medicines Directorate (VMD) in Kenya to develop data collection tools and a draft communication strategy for pharmacovigilance of veterinary medicines.
4. Supported NASIC/ CASIC to convene stakeholder meeting to disseminate findings from various studies and activities.
5. Data collection to support the KAP study to understand AMU in crops, identify areas of interventions and support compilation of best practices initiated in Nyeri County.
6. Training of health workers in antimicrobial stewardship
  - a. Two (2) day workshop to sensitize pharmaceutical inspectors of human health supply chain on AMR and develop AMR focused GDP inspection tool (Aide memoire)
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7. Mentorship of 6 counties on IPC/AMS using the continuous quality improvement approach
8. Lesson learning workshop on the AMR-MPTF project implementation
9. End of Project assessment

The Kenyan AMR-MPTF project has immensely contributed to the accelerated implantation of the Kenyan AMR-NAP. This is evident in the support provided to the country in investing in preventive approaches that would eventually reduce the spread and emergence of AMR while reducing the need for use of antimicrobials.

The country highlights success achieved by the Ministry of Health (MOH) in training 242 healthcare workers in infection prevention and control (IPC) and antimicrobial stewardship (AMS). A pre and post assessment in the six project sites showed remarkable improvement in hand hygiene compliance and use of personal protective equipment (PPE) following IPC training as the foundation for infection control. This intervention potentially reduces hospital acquired infections (HAIs) among patients, caregivers, and healthcare workers. The trained healthcare workers were also enabled to conduct IPC/AMS monitoring & evaluation activities in their counties. These training sessions also provided an opportunity to disseminate national IPC and AMS guidelines that had been developed before the project.

Through the project an antimicrobial consumption (AMC) focused inspection tool was developed and used to strengthen enforcement of regulation along the distribution chain of antimicrobials in the health sector and piloted in two counties. This noble intervention has the capacity to inform policy in streamlining the processes.

In addressing one of the major drivers of antimicrobial use (AMU) in Kenyan farms, the project has promoted farm hygiene and biosecurity to reduce the need for antimicrobials. A collaboration between WOA, FAO, the Ministry of Agriculture and Livestock Development (MOALD) together with the public and private veterinarians and veterinary paraprofessionals, realized the long-awaited development of farm biosecurity guidelines for dairy, pig and poultry production. These guideline documents accelerated the training of veterinary professionals and farmers on farm biosecurity and optimization of use of antimicrobials in the animal sector. The trained professionals continue disseminating the skills and knowledge imparted to them through training the farmers they serve and other veterinary professionals through continuous professional development programmes.

A pilot project conducted in poultry farms on practical implementation of biosecurity measures showed incredible reduction in infections and a reduced use of antimicrobials. This practical experience continues to encourage other farmers to embrace hygiene and farm biosecurity.

A first in the history of the Directorate of Veterinary Service (DVS) and the Veterinary Medicines Directorate (VMD) was the support provided to stakeholders' animal health and the veterinary pharmaceutical industry in developing a post market surveillance framework for veterinary medicinal products to be used by the regulator in safeguarding the quality of veterinary antimicrobials. In the same breadth, support for the regulatory review process saw the revision of regulations empowering the VMD to better regulate veterinary medicines. A communication strategy for the post marketing surveillance and data collection tools for post market surveillance have also been developed.

Thanks to AMR-MPTF, we have new knowledge! A Knowledge, Attitude and Practices (KAP) study undertaken to understand AMU in crops, identify areas of interventions and support compilation of best practice, revealed a more urgent concern on the use of non-composted animal manure that needs to be addressed. As opposed to what was initially thought. Farmers use alternative methods to control diseases and pests in their crops and to enrich the soil instead of using antimicrobials. Use of raw manure as fertilizer in farms may lead to AMR through the spread of resistant bacteria and AMR genes in the environment further contaminating the food chain.

An increased outreach to the public and professionals on awareness of AMR risks has been achieved by reaching out to counties which had not been possible before the project.

### **Main challenges**

The challenge of organizational changes affecting key project personnel was encountered during the implementation of this project. The main project focal points from WHO, FAO and the Ministry of Health who led the project concept note and project proposal development processes as well as the launching of the project implementation were only available during the first year of implementation. In the second year of the project, the project team had to deal with a change in the focal persons and received new focal points who had not initially been part of AMR work except the representative of the Ministry of health. Both the management and technical team representatives from FAO and WHO changed.

Implementation of activities was hampered during the peak of Covid-19 pandemic due to lockdown, restriction of movement and reprioritization of staff to address mitigation measures.

### **What has been the impact of these challenges on project delivery?**

The change in the representation from the Ministry of Health was a smooth one since the new colleague had been a member of the NASIC and understood the project. For the two focal points from WHO and FAO, the Project coordinator had to conduct an onboarding for the technical teams to get an understanding of the project proposal including the planned activities and budget. Details of the implementation progress was shared and the expectations for the remaining implementation period discussed with new colleagues. Support from other members of the project team was very instrumental in ensuring that the implementation continued as close as possible to what had been initially planned.

The change in key project team members delayed implementation of some activities. It also takes time before the new focal points get to connect with the country team to continue with implementation from where the previous focal person left. Considering that some activities had been planned for joint implementation like conducting a social anthropological study to help design interventions that will influence behaviour change across the public health and veterinary service providers (One Health study) and publication/development of newsletters and peer articles on AMR progress and NAP implementation were not implemented.

The COVID-19 pandemic caused delay in implementation of activities especially related to capacity building of professionals.

### **Learning Innovation**

There is a need to have more than two representatives from the Tripartite and country ministries forming part of the project core project team. This would ensure uninterrupted continuation of the project in case of the above change in staff occurs.

### **Stakeholder engagement and resource mobilization:**

**Is there evidence that the MPTF grant is catalysing a broader engagement of stakeholders and / or additional investment in addressing AMR (government)**

The AMR MPTF grant has catalysed a broader engagement of stakeholders in Kenya. This has been the evident since the project inception for all engagements that required stakeholder consultation; and it is key to the country ownership and for building sustainability for the continued implementation of activities and systems for posterity.

Additional investment by government has been realized in implementing some activities where the government requested for partnerships for various partners and has funded some aspects of implementation by providing government venues, vehicles and fuel to support project activities.

**Table 2: Review of progress against log frame**

**2.a Log frame outcomes**

MPTF Outcome	Indicators	Assumptions – any revisions? Put here
Use of antimicrobials optimized in critical sectors	Tools for Country level AMC/AMU data collection developed for human and animal health.	-Pharmacy and poisons Board and the Veterinary Medicines Directorate will support the processes. -All stakeholders required for this process will be willing to participate
	AMC/AMU databases developed in the MoH and MoALFC.	-There will be adequate capacity to develop the databases in a timely manner
Improved understanding of AMR risks and response options by targeted groups	National and county targeted AMR awareness campaigns established.	-Stakeholders from counties will be willing to participate in the awareness campaigns

**2.b Log frame outputs and associated indicators**

<b>% progress against indicator:</b> Based on time, budget and activities underway/completed					
<b>Categories:</b>	0%	1-25%;	25-50%;	50-75%;	75%-99% 100% <b>Choose best option</b>



MPTF Output	Indicators	Progress description (activities started/completed)	Indicator % met	Assumptions – any revisions? Put here
Output A: Systems for biosecurity and IPC strengthened	Indicator A.1: National IPC and good practices guidelines developed and/or disseminated.	Three (3) farm biosecurity guidelines for dairy, poultry and pig value chains developed during writing -workshop held between 22-24 March 2021 involving key multi-sectoral experts from the public and private sector. The three farm biosecurity guidelines documents were reviewed and validated during a validation workshop held from 12-16 August 2021	80%	

		<p>The three farm biosecurity guidelines documents were disseminated to 29 veterinarians and 30 paraprofessionals during various training sessions. Trainees were informed to further disseminate the guidelines to stakeholders in their respective networks. Dissemination of guidelines continued through Kenya Veterinary Association -Self Employed Veterinarians (KVA-SEVET) continuous professional development programmes and the TRANSFORM project. Guidelines have been published on the MOH website and ECHO platform used for further dissemination.</p> <p>75-99%</p> <p>70 (13 female) sub-national public and private animal health workers were sensitized on Infection Prevention Control (IPC) and biosecurity guidelines with reference to antimicrobial resistance, in October 2022</p> <p>Dissemination planned during the 2023 annual Kenya Veterinary Association (KVA) conference in April 2023.</p> <p>Continued dissemination occurred through continuous professional development programs in the veterinary profession.</p>		
	Indicator A.2: Number of trained professionals on IPC and Biosecurity	<p>Thirty (14 male, 16 female) sub-national veterinary Paraprofessionals trained as Trainers of Trainers (ToTs) on farm biosecurity measures, from 12-14 October 2021.</p>	100%	

		<p>Twenty-nine (22 male, 7 female) sub-national veterinarians trained on AMR-NAP implementation, responsible use of antimicrobials and Farm Biosecurity from 14-17 December 2021.</p> <p>121 personnel trained on IPC drawn from 6 target counties.</p>		
B. Systems for optimized use of antimicrobials strengthened in critical human and animal sectors	Indicator B.1: Number of regulatory framework for AMC/AMU in human and animal health revised/developed/updated.	<p>- A post-market surveillance Plan for veterinary medicines developed.</p> <p>A communication strategy for the post-market surveillance plan developed.</p> <p>Tools for post-market surveillance data collection for different stakeholders in the veterinary medicines supply chain developed.</p>	100%	
		Draft legal notices on prohibition of use of antimicrobials AMU as growth promoters and on the prohibition of the use of critically important antimicrobials (Fluoroquinolones, third and fourth generation Cephalosporins and Colistin) without a risk analysis	50%	
	Indicator 2: AMC/AMU databases developed in the MoH and MoALFC.	<p>Draft terms of reference (TORs) for the development of AMU database at VMD developed.</p> <p>The database could not be developed due to the little money budgeted to deliver on the output.</p>	25%	
	B.2 Guidelines for responsible and prudent use of antimicrobials based on WOA international standards are disseminated	Guidelines on prudent use of antimicrobials in dairy, poultry and pig production shared with 29 County veterinarians and 30 veterinary	80%	

	to veterinarians and veterinary paraprofessionals.	paraprofessionals during various trainings. - SEVET continuously disseminated during their continuous professional development (CPD) programmes		
C. Improved capacity to design awareness raising, behaviour change and educational activities	C.1 Support delivery of two (2) nationwide AMR campaign targeting stakeholders' groups based on targeted messaging within sectors	Supported WAAW 2021 celebrations at national level that enabled, i) convening of a 1-day meeting to train the media on AMR, ii) convening a high-level meeting which launched the WAAW celebrations in Kenya and, iii) launching of various documents to support the implementation of Kenya's AMR-NAP. Supported WAAW 2021 at subnational level by enabling. Bungoma County Antimicrobial Stewardship Interagency Committee (CASIC) to hold a farmer field day that educated more than 150 farmers and other key stakeholders. - During WAAW 2021, various awareness creation materials (pull up banners, horizontal banners, branded t-shirts and branded caps) were developed, printed and disseminated at national level as well as to five County Antimicrobial Stewardship Inter-Agency Committees (CASICs).	75%	
	2. The Implementation of the communication strategy harmonised	Harmonised AMR messages developed for joint AMR awareness campaign (WAAW) in 2022 and disseminated	100%	



### Risk matrix – any changes?

Risk description	Risk Category: Contextual Programmatic Institutional	Worst case consequence for the project	Risk Score		Mitigating action	Action owner
			Impact	Likelihood		
COVID-19 situation	Contextual	Delay in start of the project activities on the ground	High	High	Convert some activities to virtual such as launching, national consultations etc.	Tripartite
Inadequate coordination amongst the key stakeholders	Institutional	Delay in implementation of activities	High	Medium	Early consultation with key focal points and continued engagement	Tripartite
Political instability and changes in focal points	Institutional	Changes in the activities and priorities	Medium	Low	Involve all relevant stakeholders including policy technical and operational staff working on AMR/AMU to maintain continuity	Tripartite
Delay in fund release	Programmatic	Delayed implementation of the project activities	Medium	Low	Continuous follow up and identification of focal points at HQ/Regional/National tripartite offices.	Tripartite

## Annex: Pictures



▪ *Machakos County AMS Training Workshop*



Group discussion during the Pharmacovigilance tools and communication strategy development workshop.



Participants following deliberations during the Lesson Learning workshop.



Dr. Fasina Folorunso (FAO) giving opening remarks during the Lesson Learning workshop in Kenya.



Group Picture for the participants at the Lesson learning workshop-Kenya.