

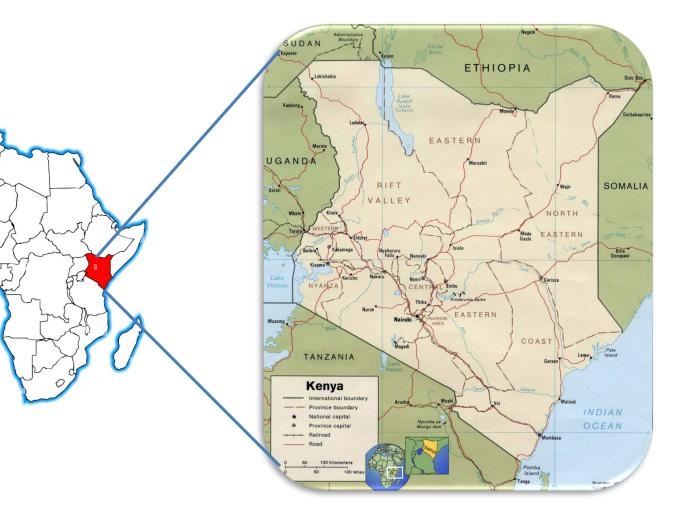
## **AMR National Action Plan**

# **The Government Role**



KENYA





- Estimated population of 50 million
- Burden of disease communicable diseases (Infectious diseases; Top 5)
- Devolved governments with 47 counties

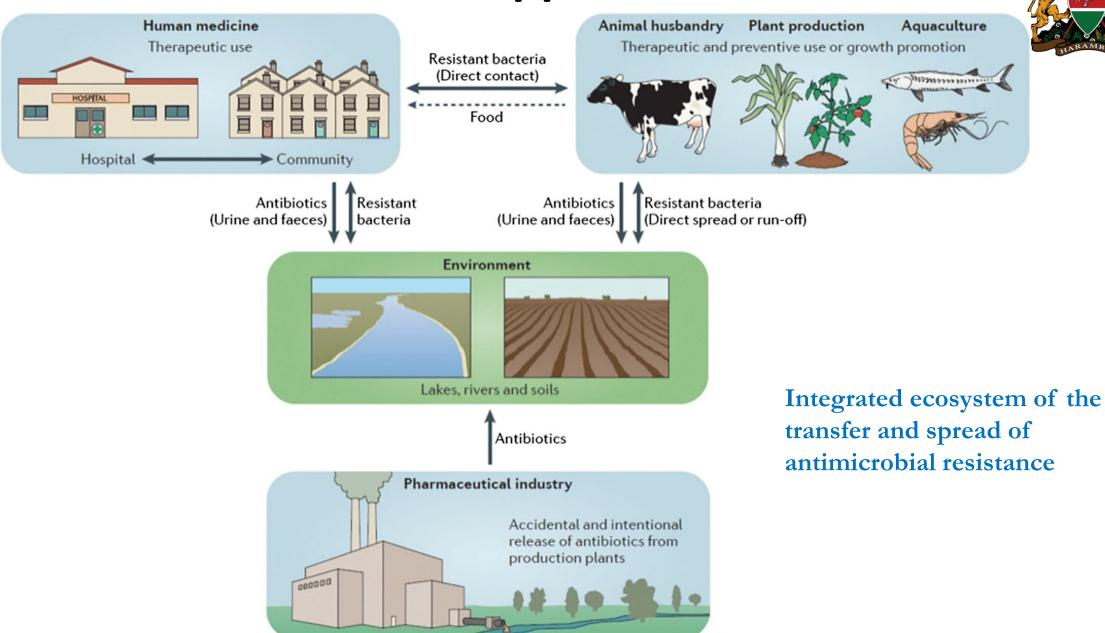


## Introduction



- Antimicrobial resistance (AMR) is one of the most complex public health threats with root causes in multiple sectors ranging from health, food safety, and agriculture, to environment and trade
- From the 2021 AMR surveillance report, Kenya is no exception to this threat with increasing rates of AMR being reported in hospitals and communities
- In response to this, the Ministry of Health in partnership with the Ministry of Agriculture, Livestock, Fisheries and Co-operatives have been part of the regional and international efforts to reduce AMR, and ensure the availability of effective antibiotics now and into the future
- The two ministries have consolidated national efforts to implement sustainable measures to mitigate any further emergence and spread of AMR

# **One Health Approach**



# **Addressing AMR is a Shared Responsibility**

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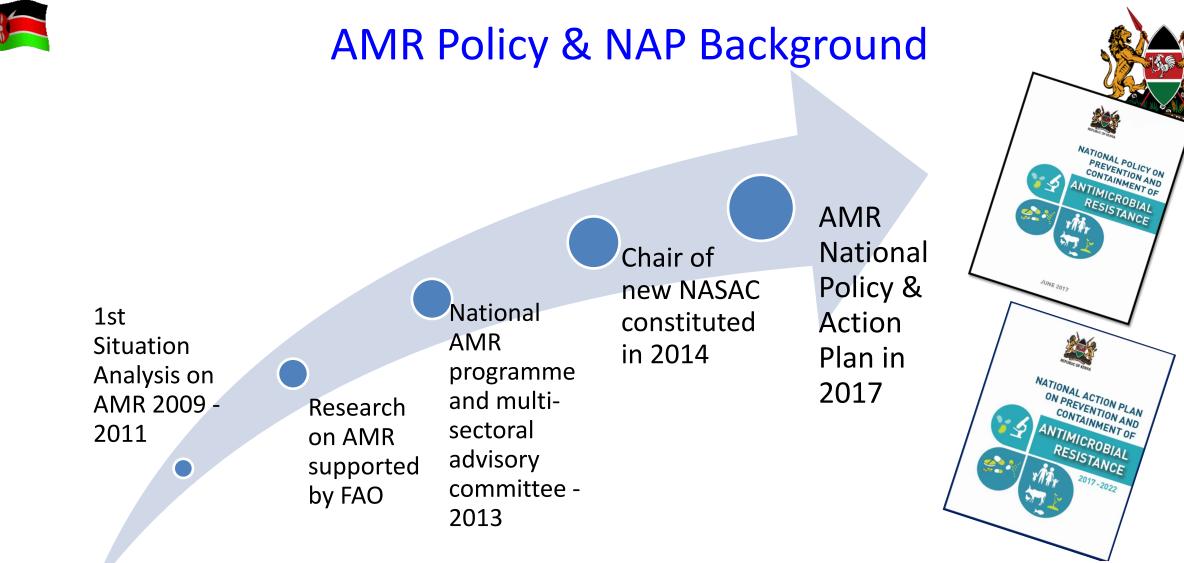
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Food and Agricultur Organization of the United Nations







Because the AMR threat is multidisciplinary, intersectoral and global, successful implementation of this Action Plan requires strong Government commitment and collaborative actions across the sectors and with our international partners. This Action Plan outlines the key AMR roles and responsibilities, and calls on everyone to act now, to are the threat of AMR in Kenya and the world.



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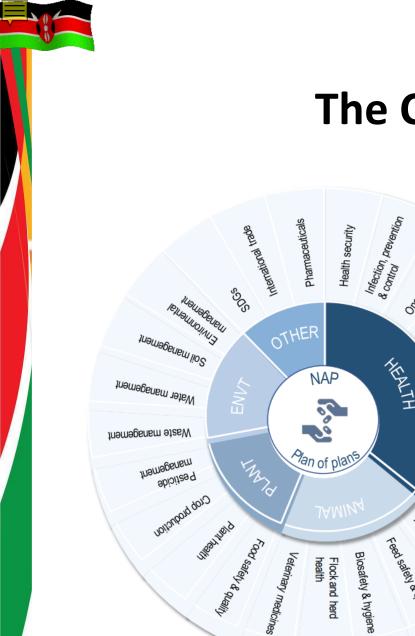
Dr. Cleopa Mailu, EGH Cabinet Secretary Ministry of Health Mr. Willy Bett EGH Cabinet Secretary Ministry of Agriculture, Livestock Fisheries & Blue Economy







Ministry of Health, Cabinet Secretary, Principal Secretary State Department of Livestock and partners. National Policy and Action Plan on AMR November 2017-Launch





## The Complexity of the NAPs

One Health

HEALTH

Medicines

Maternal & child

hygiene

diseases

Health system

strengthening

Animal welfare

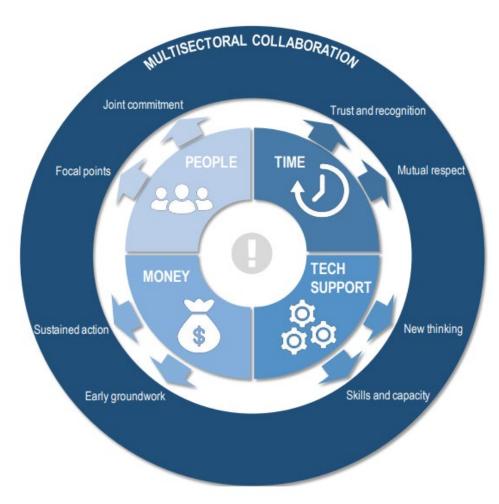
Feed safety & quality

Water, sanitation &

Surveillance

Communicable

health



Tackling antimicrobial resistance (AMR) together. Working paper 1.0: Multisectoral coordination. Geneva: World Health Organization; 2018



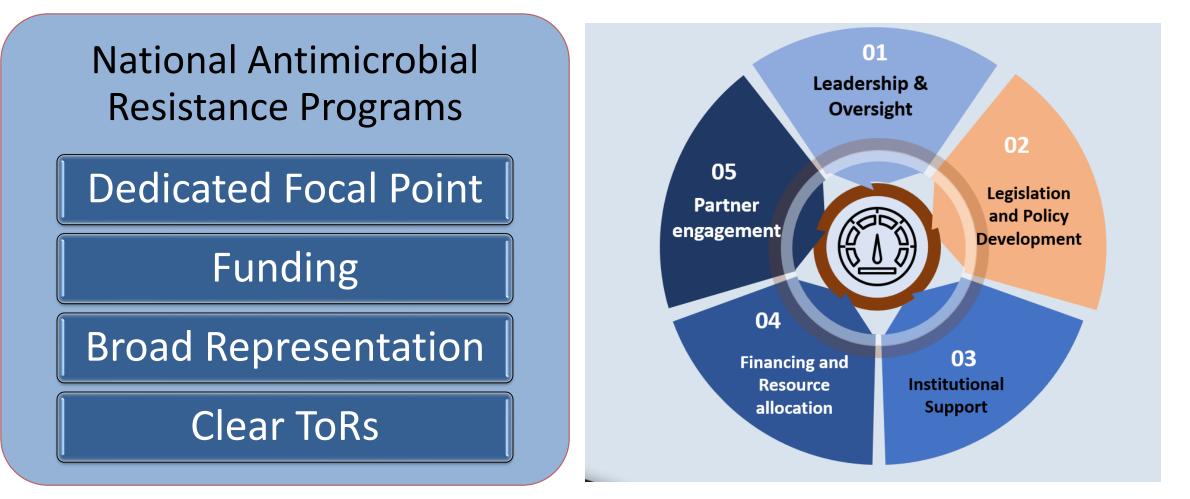
# **Role of Government**



- Deliberate coordination of different stakeholder groups civil society and the private sector — and sectors — such as health, agriculture, trade, education and the environment — to jointly achieve a goal
- Institutionalize mechanisms for coordination of the AMR agenda across all the relevant sectors.
- Integrate the AMR agenda within the sectoral plans
- Strategic interactions must happen between the government and various collective stakeholders for reforms to happen



## **Enabling Structures -** Central Coordination





National level

County level





# NASIC Technical Committee (NASIC-TC)



## • Composition:

- Comprised of Technical Directors of relevant ministries and experts.
- Responsibility:
- Technical oversight,
- Overseeing the implementation of the National Policy for AMR.
- Ensure close coordination with other relevant stakeholders.





#### Advocacy

Lobby for investment in, or realignment of, new and existing programmes to deliver AMR results.

#### Momentum building

Raise awareness among senior politicians and keep AMR high on the political agenda.

#### Leadership & coordination

Lead and coordinate action on AMR across departments and sectors.

#### Communication

Engage senior ministers and strengthen understanding of AMR's impacts and the risks it poses to development.

#### Evidence building

Promote or facilitate a stronger local evidence base on AMR.

#### Monitoring Monitor and report

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Lines of

accountability

on progress.

Political Authority support to act

#### NASIC TC, Joint AMR Secretariat and Government Leadership During the AMR Forum, July 21<sup>st</sup> 2022







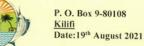
# **County Government Coordination Mechanisms**

- County Antimicrobial Stewardship Interagency Committee (CASIC)
- Composition:
- County Executive Committee
   Members,
- County Chief Officers of relevant Departments
- Technical County Directors and
- Technical Experts.

#### **COUNTY GOVERNMENT OF KILIFI**

#### **DEPARTMENT OF HEALTH SERVICES**

Email: cecdohkilifi@gmail.com When Replying/Telephoning quote REF: DOH/KLF/CEC.CORR/VOL.3/73



UE COUNTY EVECTORIES CONTRACT

OFFICE OF THE COUNTY EXECUTIVE COMMITTEE MEMBER

#### RE: APPOINTMENT - KILIFI COUNTY ANTIMICROBIAL STEWARDSHIP INTERAGENCY COMMITTEE (CASIC) TECHNICAL WORKING GROUP MEMBER

The officials listed below are hereby appointed as members of various Kilifi CASIC technical working groups (TWG) with effect from August 19, 2021 to June 30, 2023.

We wish you well as you serve in the CASIC TWGs to ensure, for as long as possible, continuity of the ability to treat and prevent infectious diseases with effective and safe medicines that are quality-assured, used in a responsible way, and accessible to all who need them in Kilifi County.



Hon. Luciana Sanzua

County Executive Committee Member DEPARTMENT OF AGRICULTURE, LIVESTOCK & FISHERIES





Nyeri County Governor & Nyeri County Health management Team 2020



# AMR National Action Plan Implementation

#### . PUBLIC AWARENESS & EDUCATION (Completed)

#### A) Increase public awareness & understanding

- Communication strategy developed and launched in 2019
- WAAW celebrated annualy since 2014. WAAW2021 conducted in Machakos, Kiambu, Makueni, Nyeri, Murang'a, Trans Nzoia, Bungoma, mombasa, Kisii (9 Counties)
- IEC Materials on AMR developed/revised and distributed
- AMR events reported in public Media
- Surveys carried out Citizen Generated Data (CGD) in several counties to establish level
  of awareness on AMR





## **PUBLIC AWARENESS & EDUCATION (Completed)**

#### B) AMR as a core component of health professional

- AMR curriculum with modules for Pre-Service (University; Pharmacy) and In-service (all carders) developed
- Health care workers and veterinary officers trained and sensitized on AMR

#### C) Education and training on AMR of professionals

• Health care workers and veterinary officers trained and sensitized on AMR

#### D) Establish multi-sectoral one health committees

- NASIC in place
- 14 counties have CASICs; Machakos, Kiambu, Embu, Nyeri, Makueni, Muranga, Uasin Gishu, Trans Nzoia, Bungoma, Kisumu, Kakamega, Bomet, Kilifi, Mombasa









## 1. PUBLIC AWARENESS & EDUCATION (Pending)

#### A) Increase public awareness & understanding

• Implementation of the AMR communication strategy components

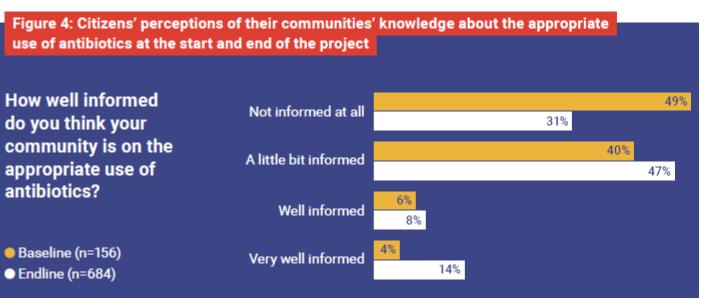
#### B) AMR as a core component of health professional

• Incorporation of AMR modules in other health professionals curricula

#### C) Establish multi-sectoral one health committees

• Scale up establishment of County Antimicrobial Stewardship Committees to all 47 counties









#### 2. SURVEILLANCE & MONITORING (Completed)



Goal: To continuously monitor antimicrobial resistance and use of antimicrobials and appropriately understand the trends and spread of AMR. To enhance the collection of data on AMR, there is need to build capacity of professionals and laboratories



## 2. SURVEILLANCE & MONITORING (Completed)

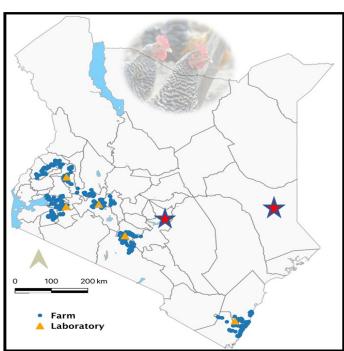
#### **B) Establishment of AMR National Reference Centres**

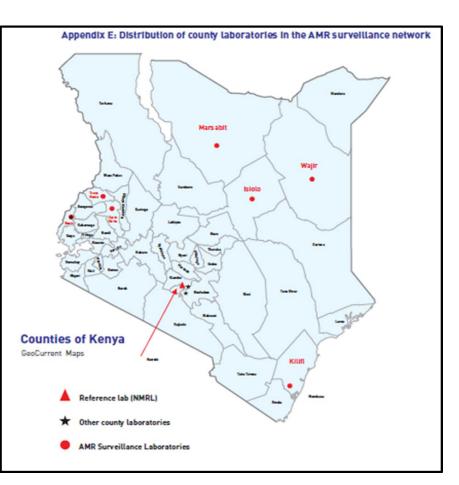
• National Public Health Labs & Central Veterinary Lab as reference centres

#### C) Establishment of AMR Surveillance Lab Network

- 16 (10) surveillance sites NPHL network
- 6 surveillance sites CVL network







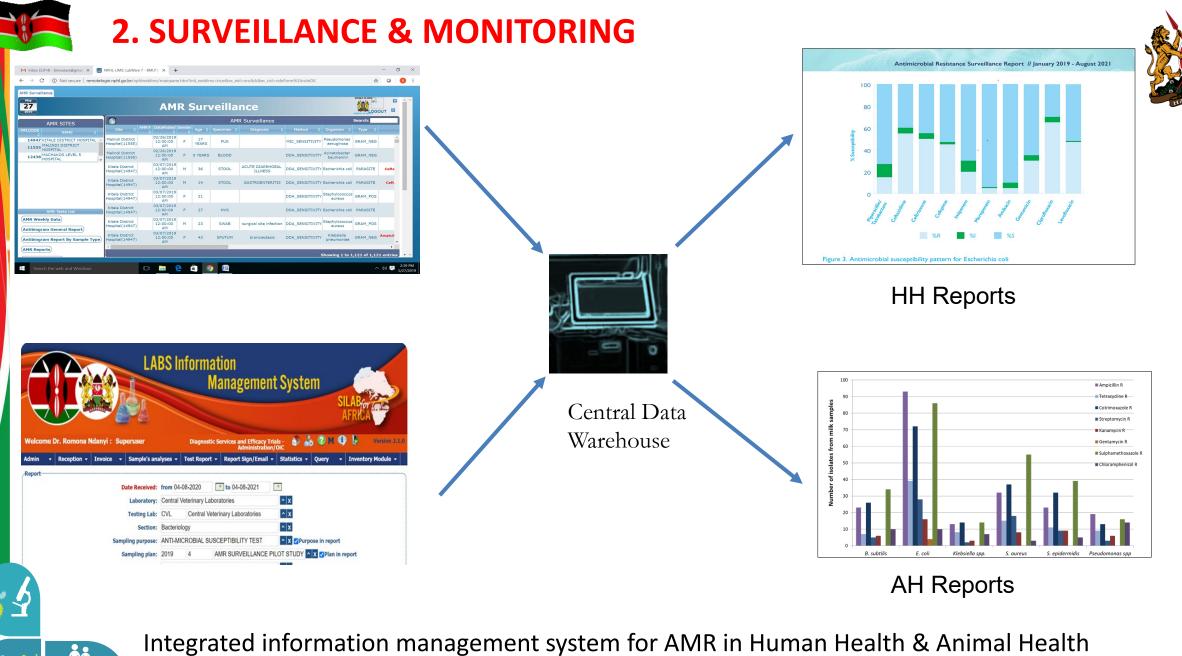


## URVEILLANCE & MONITORING (Completed)

#### D) Development of An Integrated Information Management System For AMR In Human Health & Animal Health

- Linkage of LIMS to the CDW in some surveillance sites
- LIMs (Silab) installed in 4 AH sites and linked to KABS
- Staff trained on data submission & data management
- Provided IT equipment (computers) in some labs

<ul> <li>M Inbox (3,914) - bnmuture@gmail x</li> <li>✓ → C O Not secure   remotel</li> </ul>	NPHL-UMS: LabWare 7 - BMUTU ×     +     -     O     ×       ogin.nphl.go.ke/nphlwebilms/mainpane.htm?init_webilms=true&ec_eid=onclick&ec_cid=roleForm%3AroleOK     \$\$ O     O     •	LABS Information		
AMR Surveillance	AMR Surveillance	Management System		
AMR SITES	Omega     AMR Surveillance     Search:       Site     AMR # DatePosted Gender Age     Specimen ©     Diagnosis ©     Method     Organism ©     Type ©       Malindi District hospita(1155)     12:00:00     F     17     Pus     MIC_SENSITIVITY     Pseudomonas aeruginosa     GRAM_NEG	SILABGO AFRICA		
11555 MALINDI DISTRICT HOSPITAL 12438 MACHAKOS LEVEL 5 HOSPITAL	All     All       Malindi District     02/26/2019       Hospital(11555)     12:00:00       F     0 YEARS       BLOOD     DDA_SENSITIVITY       Administration     GRAM_NEG	Welcome Dr. Romona Ndanyi : Superuser Diagnostic Services and Efficacy Trials - Administration/OiC 🍪 💑 🕐 M 💶 💺 Version 2.1.		
	Hospital(14947) AM 50 STOOL ILLNESS DDA_SENSITIVITY Escherichia coli PARASITE Ceft Kitale District Hospital(14947) AM 14 STOOL GASTROENTERITIS DDA_SENSITIVITY Escherichia coli PARASITE Ceft	Admin       •       Reception       •       Invoice       •       Sample's analyses       •       Test Report       •       Statistics       Query       •       Inventory Module         Report       - <t< td=""></t<>		
AMR Tasks List	Kitale District         03/07/2019         F         21         DDA_SENSITIVITY         Staphylococcus aureus         GRAM_POS           Kitale District         03/07/2019         F         27         HVS         DDA_SENSITIVITY         Staphylococcus aureus         GRAM_POS           Kitale District         03/07/2019         F         27         HVS         DDA_SENSITIVITY         Escherichia coli         PARASITE	Date Received:       from 04-08-2020       to 04-08-2021         Laboratory:       Central Veterinary Laboratories		
AMR Weekly Data Antibiogram General Report	Kitale District Hospital(14947)     03/07/2019 AM     M     23     SWAB     surgical site infection     DDA_SENSITIVITY     Staphylococcus surgical     GRAM_POS       Kitale District Hospital(14947)     03/07/2019 12:00:00     F     43     SPUTUM     bronclectasis     DDA_SENSITIVITY     Klebslella pneumoniae     GRAM_NEG     Ampicil	Testing Lab:       CVL       Central Veterinary Laboratories       Image: CVL         Section:       Bacteriology       Image: CVL       Imag		
AMR Reports	Showing 1 to 1,121 of 1,121 entries	Sampling purpose: ANTI-MICROBIAL SUSCEPTIBILITY TEST		
Search the web and Windows	□ <u></u>			

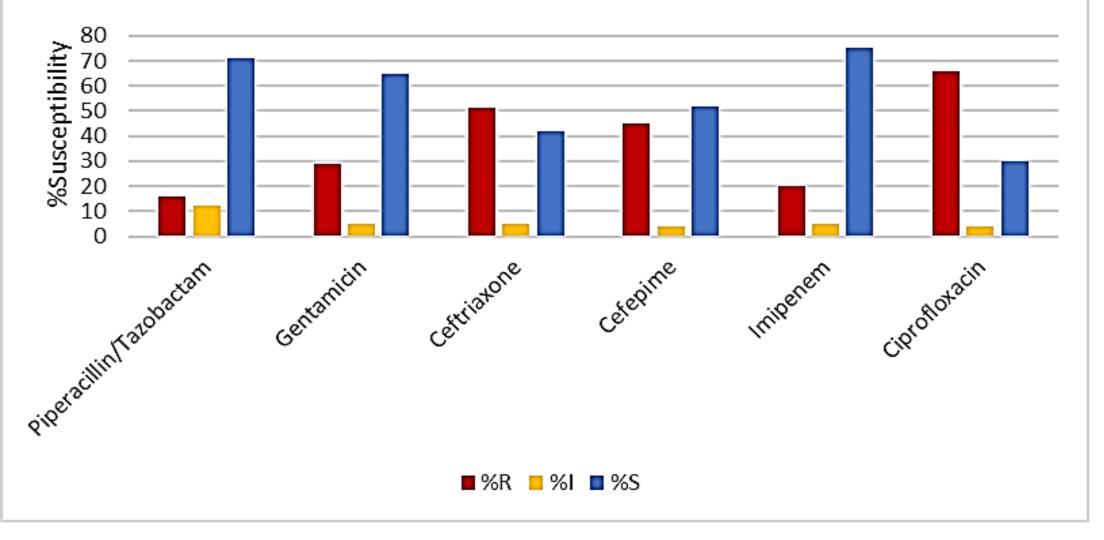


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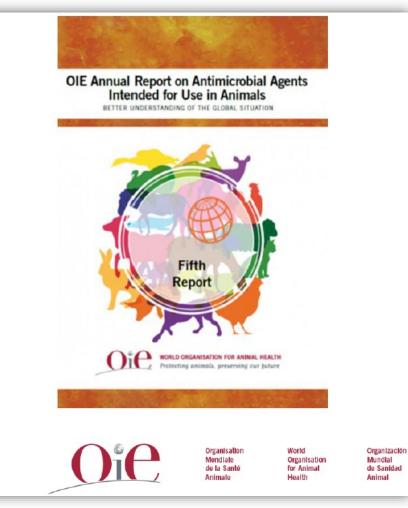


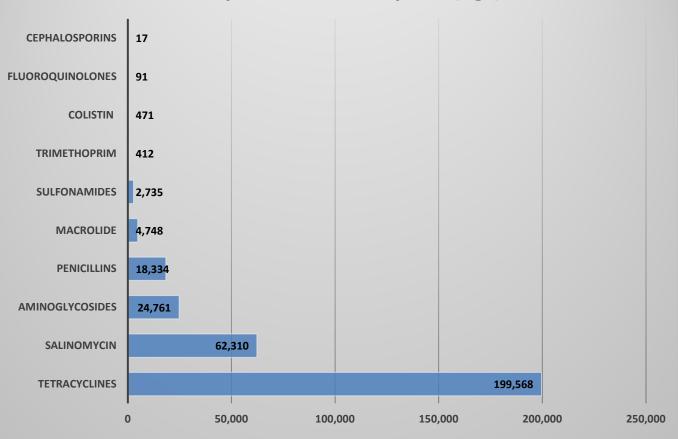


#### Antimicrobial Susceptibility Pattern for E.Coli



# Kenya participates in Annual Reporting of AM Agents used in animals annually.



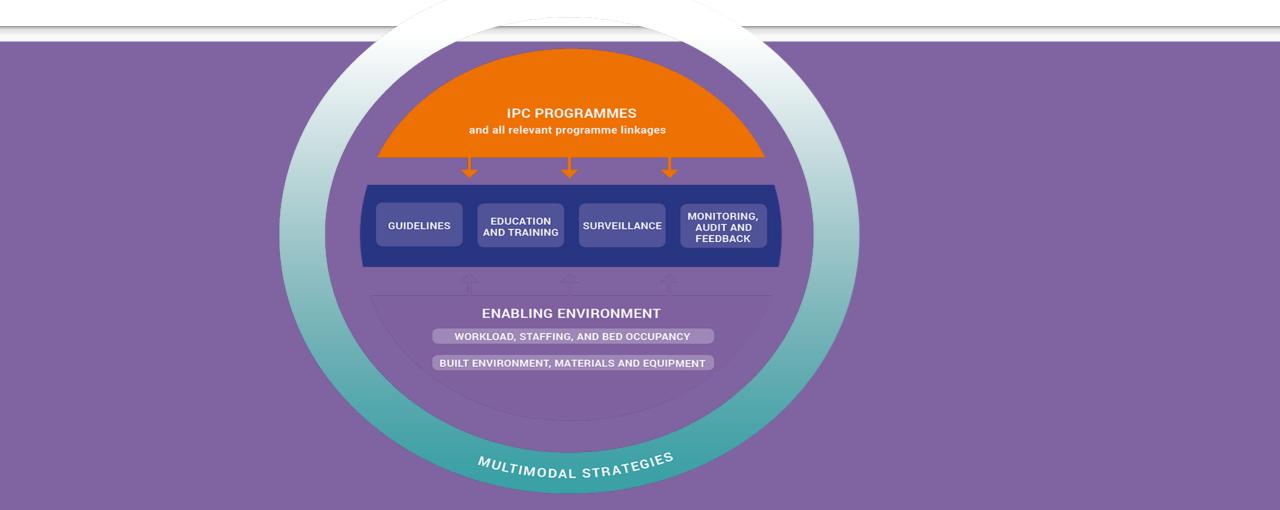


Mean Quantity of Antibiotic Imports (Kgs)

Veterinary Medicinal Products – Antibiotic Imports

## 3. INFECTION PREVENTION & CONTROL (Completed)

## **Core IPC Components**



## **3. INFECTION PREVENTION & CONTROL (Completed)**



HEALTH	Activity	Completed
	Implementing National IPC Strategy	<ul> <li>National IPC program</li> <li>15 counties have CIPCACs</li> <li>47 IPC Coordinators</li> </ul>
	Development of Policies & Guidelines	<ul> <li>National IPC Policy &amp; Guidelines</li> <li>National IPC Strategic Plan 2021</li> <li>IPC M&amp;E Framework</li> </ul>
HUMAN	National Infection Prevention and Control Guidelines for Health Care Services in Kenya Ministry of Health October 2015	Winter of Health         Kenya National Infection         Prevention and Control Policy         May 2021

Guideline

×Mir ≔™⊥

Policy

Strategy



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## **3. INFECTION PREVENTION & CONTROL (Completed**



	Activity	Completed
	Capacity Building	HCW trained on Basic & COVID-19 IPC
N HEALTH		ECHO IPC Platform
	Strengthen standards of	<ul> <li>IPC standards incorporated into accreditation and quality</li> </ul>
	Practice	assurance standards (KQMH,JHIC)





CORE STANDARDS FOR QUALITY HEALTHCARE

Kenya Quality Model for Health

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© 2018



## **3. INFECTION PREVENTION & CONTROL (Completed)**

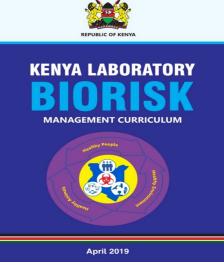


Activity Completed Strengthening Hygiene, & Food safety Measures in Sensitized national government personnel on food Food Value Chains and the Environment hygiene, existing standards, guidelines and regulations Developed farm biosecurity guidelines for dairy, poultry and pig value chains -high risk food value chains with high AMU Inclusion of Hygiene & IPC as Core Component of Trained public and private sector personnel on • **Training & Education for Veterinary** HACCP in meat processing and Dairy processing establishments









## 4. APPROPRIATE USE OF ANTIMICROBIALS (Completed)



- A) Develop Strategies to Optimize and regulate Use of Antimicrobials
- National AMS guidelines for Healthcare Settings
- Guidelines for the Prudent Use of Antimicrobials in Animals
- Antimicrobial Use Protocol in Animal Health
- Clinician's Handbook on Diagnostic Stewardship
- Kenya Essential Medicines List 2019 (Recognizes AWaRE Classification)
- National Integrated AMS Plan



## 4. APPROPRIATE USE OF ANTIMICROBIALS (Completed)



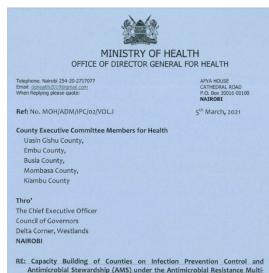
#### **B) Establishing Antimicrobial Stewardship programs**

- Developed AMS Training Curriculum; Basic & Advance
- Capacity building of professionals; Training & Mentorship
- Sensitization of county and facility leadership on AMS and AMR
- All level 6 HCF and ~30% County referrals (level 5) have established AMS programs

#### C) Strengthen Regulation & Monitoring on AMC and AMU

- Regulatory advisories to HCP and Public on use of antimicrobials
- Developed an M&E system for reporting prescribing practices in HCF
- Point prevalence surveys and audits









## **Estimation of National level AMC**

- WHO AMC methodology applied
- Import data on antibiotics (J01)
- Consumption in DDDs and DIDs was computed (2018 to 2021)
- Analysis of AMC by route of administration
- Analysis by AWARE
- Analysis pharmacological class
- Analysis by DU75 & DU90
- Analysis by KEML 2019 and WHO EML 2021







#### **Estimation of National Level AMC Results**

YEAR	SUM OF DDD	SUM OF DID	ORAL	PARENTERAL
2018	1,193,614,725.00	63.63133	56.21%	43.79%
2019	667,798,080.20	34.80018	49.75%	50.25%
2020	254,565,790.90	12.9705	85.16%	14.84%
2021	360,223,086.90	17.66255	71.36%	28.64%
Grand Total	2,476,201,683.00	129.0646	59.65%	40.35%

Total DDDs and DIDs of antibiotics (J01) consumed in Kenya from 2018 to 2021 by Route of Administration



#### **Estimation of National level AMC Results**



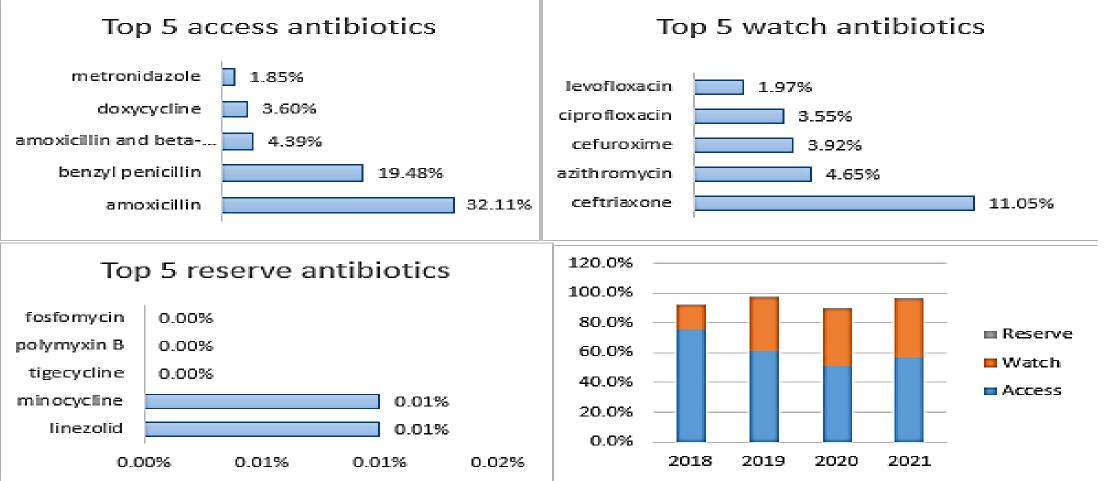


Table 7 Top five WHO\_AWARE category antibiotics.

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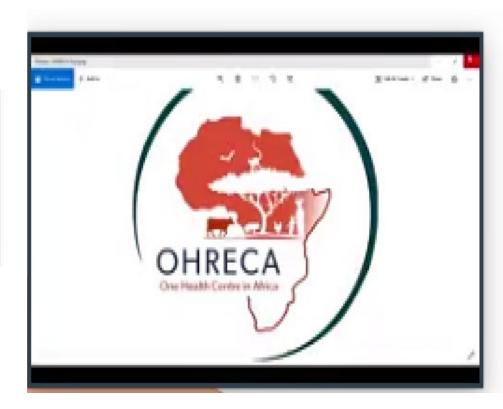
# 5. Research & Development



 One Health Research, Education and Outreach Centre in Africa (OHRECA)

NEGLECTED<br/>ZOONOTIC<br/>DISEASESEMERGING<br/>INFECTIOUS<br/>DISEASESFOOD SAFETY<br/>& INFORMAL<br/>MARKETSANTI<br/>MICROBIAL<br/>RESISTANCE

- Baseline Evaluation Surveys AMR-MPTF
- Citizen generated data report.
- Transformative Innovative Policy Project, SPIDAAR
- KEMRI





# Lessons Learnt



Political commitment	<ul> <li>Critical to move the AMR agenda, mobilize resources, and achieve action</li> <li>Requires someone in government at the right level, with the right decision-making authority, to drive action on AMR.</li> <li>Political and personnel changes- Regular briefings and updates</li> </ul>
Resources	<ul> <li>Time, money, technical assistance and dedicated human resources to coordinate and secure mutual trust, ownership and collaboration.</li> <li>Governments must take the lead in resourcing NAPs</li> </ul>
Governance mechanisms	<ul> <li>There is no one-size-fits-all</li> <li>Good communication and consultation is essential</li> <li>Understand the policy environment and the policy formulation processes</li> </ul>
Practical management	<ul> <li>Clear institutional mandates, roles and deliverables strengthen the transparency and accountability</li> <li>Monitoring framework and feedback mechanism is vital- Keep it simple</li> </ul>



AIL



Chief Administrative Secretary – MOH at the AMR Forum 2022

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Director General for Health – at the AMR Forum 2022

# Challenges



- Inadequate engagement through the decision making process
- Inadequate resources
- Lack of critical support functions
  - Communication
  - IT infrastructure and data management
  - Monitoring and Evaluation
- Capacity building for focal points-communication, diplomacy, negotiation
- Lack of consistent support for AMR activities especially in animal health



## Conclusion

- Need to repackage our narrative, engage the leadership citizens: Compelling narrative
- Each country will have different approach- find the best fit.
- Engagement from an end to end process (from design to implementation) to ensure joint ownership ,effective implementation and sustainability of interventions
- Governments need to take leadership of the process and provide clear mechanisms for engagement to harness and sustain support in and outside government.



