Meeting Notes – 11th October 2025

The Fragmented Picture of Antimicrobial Resistance in Kenya: A Situational Analysis of Antimicrobial Consumption and the Imperative for Antimicrobial Stewardship

Introduction

The paper presents a **situational analysis** of **antimicrobial resistance (AMR)** in Kenya, examining the **drivers of resistance**, **patterns of antimicrobial consumption** and the **status of policy implementation**. It highlights how **misuse of antibiotics** in **human health**, **animal health** and **agricultural production**, together with **weak diagnostics** and **surveillance gaps**, have contributed to a **fragmented AMR landscape** in Kenya. Despite strong policy frameworks such as the **National Action Plan (NAP) on AMR** using a **One Health** approach, implementation challenges persist.

Methodology

The study employed a **two-fold approach**:

1. **Systematic Scoping Review**

    - Searched multiple databases (**PubMed, Embase, Google Scholar**) for publications on AMR in Kenya.
    - Applied **PRISMA-ScR guidelines** for study screening and selection.
    - Included **19 eligible studies** that reported on key AMR indicators such as **surveillance**, **stewardship**, **diagnostics**, **awareness**, and **consumption patterns**.
    - Extracted and charted data based on study settings, variables studied, and key outcomes.
    - Included **government and policy reports** to compensate for research gaps typical in LMICs.

2. **Expert Validation**

    - Conducted an **interview with an AMR expert in the Kenyan healthcare system**.
    - Validated findings from the scoping review and provided **on-the-ground insight** into county-level implementation, stewardship barriers, and contextual policy failures.

Key findings

1. Drivers of AMR

- Extensive **irrational use of antibiotics** in human health.
- **Counterfeit and substandard drugs**, especially in informal pharmacies.
- **Overuse in livestock and agriculture** (prophylactic + growth promotion).
- Poor **infection prevention**, inadequate **sanitation (WASH)**.

2. Surveillance and Diagnostics

- Kenya reports to **GLASS**, but **few sentinel sites** and limited county-level coverage.
- Many laboratories **lack capacity for bacterial culture or AST**, especially in rural settings.
- **Diagnostic delays** lead to **empiric broad-spectrum antibiotic use**.

3. Policy Framework

- A strong **NAP using a One Health model**, but **decentralized implementation is weak**.
- Only **8 counties** have active stewardship committees.

4. Health System Challenges

- **Urban–rural inequity**, understaffing, inadequate training.
- Heavy **reliance on donor funding** for AMR programs.
- Limited **public awareness** and poor **community health literacy**.

Implications

- Kenya risks **losing first-line antibiotics**, leading to extended hospital stays, higher costs, and preventable deaths.
- The **One Health approach** is promising but only effective with **stronger enforcement**, **funding**, and **capacity building**.
- Without **strengthened diagnostics**, stewardship remains reactive rather than preventive.
- Failure to regulate informal drug markets enables **resistance to spread silently**.

Call to action

- **Invest in laboratory systems** and point-of-care diagnostics.
- **Enforce prescription-only antibiotic laws** and regulate informal pharmacies.
- Speed up **county-level NAP roll-out** through CASIC structures.
- Strengthen **AMR awareness campaigns** targeting both clinicians and the public.
- Build **domestic funding capacity** rather than relying on external donors.

Future research gap

- Lack of **real-time AMR data** from community and primary care settings.
- Limited evidence from the **animal and environmental sectors** of One Health.
- Few studies evaluating **implementation success** of stewardship programs.
- Need for **cost-effectiveness analyses** of AMR interventions in Kenya.

Blessings,

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