

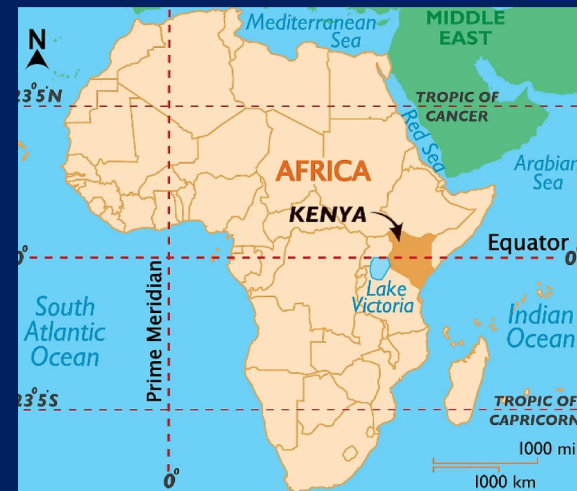
November 15th, 2022

## Agenda

- AMS project in Kenya

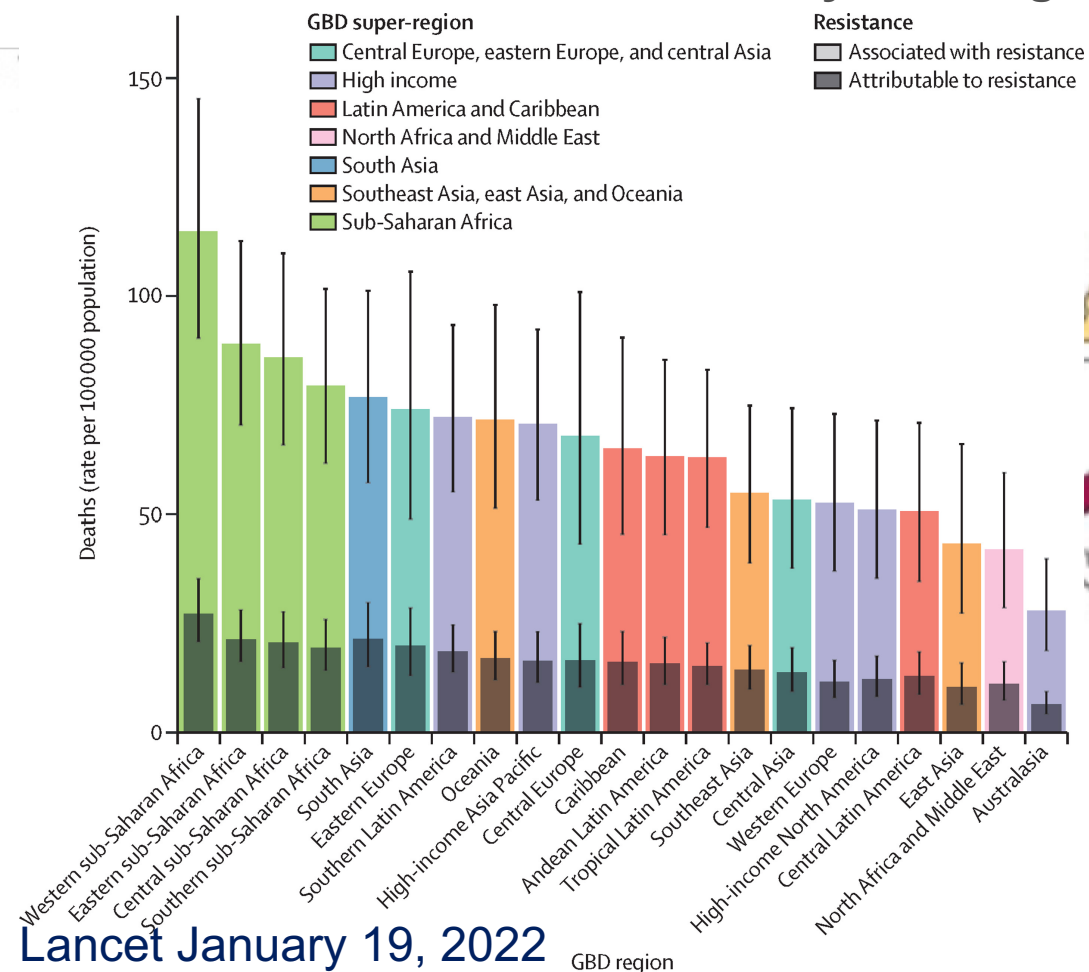
Rupali Jain, PharmD

- Case Discussions
- Open Discussion

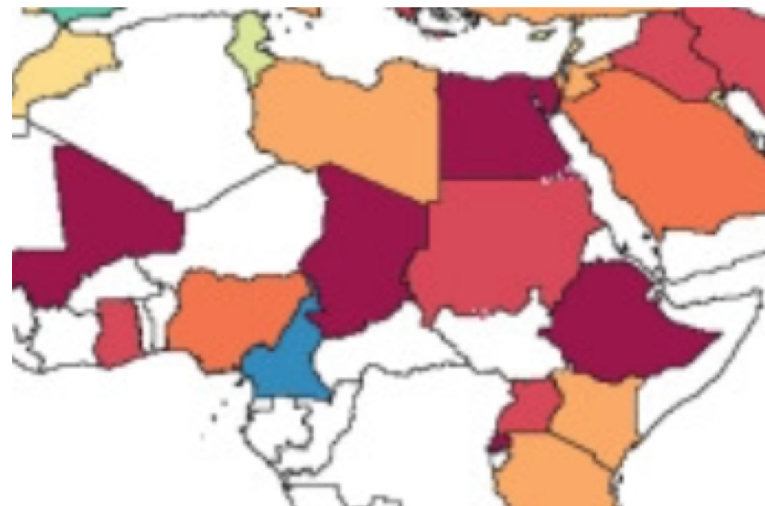


# AMR Burden

## All-age rate of deaths attributable to and associated with bacterial antimicrobial resistance by GBD region, 2019



### 3rd gen resistance *K.pneumoniae*



#### Percentage of isolates with resistance



Lancet January 19, 2022

DOI [https://doi.org/10.1016/S0140-6736\(21\)02724-0](https://doi.org/10.1016/S0140-6736(21)02724-0)

# Team



Rod Adam, MD  
Chair AMS Committee



John B Lynch



Ann Munyare  
eLearning specialist



Rupali Jain



Mary Kaniu  
Pediatric Resident

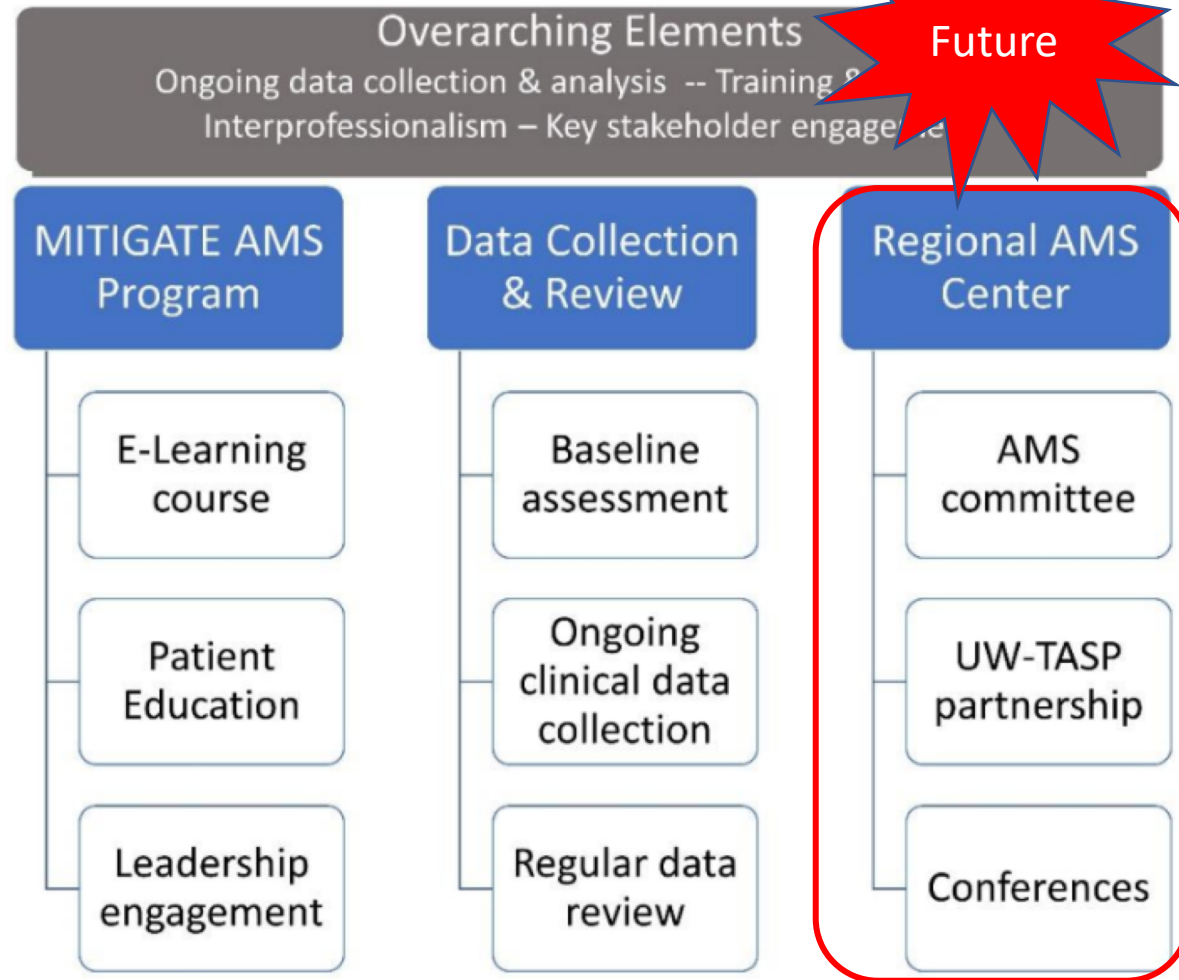


Aliza Monroe-Wise  
Chief Medical Officer Kenyatta University



# Project

- ✓ E-learning course
- ✓ Pre and post survey for clinicians
- ✓ Semi-structured interviews with stakeholders
- ✓ Review of practices post module
- ✓ Patient surveys
- ✓ Patient education for clinics





# Setting: AKU Clinics



Urban Kenya Medical  
Hospital

300 bed hospital

- ID fellowship

-AMS program

Few clinical pharmacists

20 surrounding clinics

Clinics:

-Lab, Pharmacy - onsite



# Penda Health

- 17 clinics in Nairobi area
- goal of providing affordable health care from the private sector for low-income Kenyans.
- On-site Labs and Pharmacy



# Training Program

eLearning course based in Moodle platform

Target audience: primary care providers in outpatient settings

- Clinical officers
- Medical officers
- Pharmacy technologists

Asynchronous, interactive

- Cases
- Open-ended questions with explanatory answers
- Drag and drop

5 modules, each with a 5-question quiz at the end



Module	Unit
1. Overview of AMR & AMS	<ol style="list-style-type: none"> <li>1. Principles of antimicrobial resistance</li> <li>2. Strategies to combat antimicrobial resistance</li> <li>3. Diagnostic stewardship</li> <li>4. Basics of microbiology</li> </ol>
2. Antimicrobial basics	<ol style="list-style-type: none"> <li>1. Pharmacokinetics &amp; pharmacodynamics (PK/PD)</li> <li>2. Dose &amp; duration</li> <li>3. Antibiotic drug classes</li> <li>4. Mechanisms of resistance</li> </ol>
3. Syndromes (adult-focused)	<ol style="list-style-type: none"> <li>1. Community acquired pneumonia</li> <li>2. Urinary tract infections</li> <li>3. Skin and soft tissue infections</li> <li>4. Gastroenteritis</li> <li>5. Lower respiratory tract infections</li> <li>6. Upper respiratory tract infections</li> </ol>
4. Syndromes (pediatric)	<ol style="list-style-type: none"> <li>1. Community acquired pneumonia</li> <li>2. Gastroenteritis</li> </ol>
5. How to apply stewardship	<ol style="list-style-type: none"> <li>1. Core elements of AMS programs</li> <li>2. Behavior change and inter-professionalism</li> <li>3. Metrics and the MITIGATE toolkit</li> </ol>

# Training program: Audience

**15 clinics at AKU & 15 Clinics at Penda Health**

**Medical Officers**

- medical school who have finished an internship
- no specialty training

**Clinical Officers**

- mid-level providers
- staff at urgent care clinics

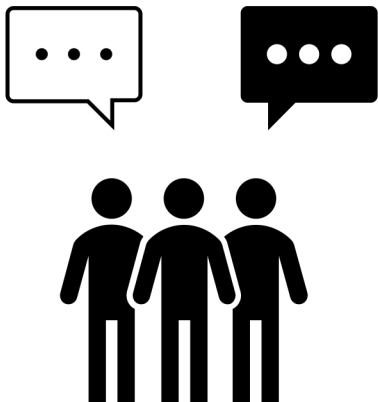
**Pharmacy technologist**

fill prescriptions in the outpatient centers



# Semi-structured interviews

- to determine awareness of AMR and enthusiasm and prioritization of AMS within the clinic
- Goal: interview 30 clinic leaders
  - The leaders may include Medical Officer in charge, Nurse in Charge or Branch Managers.





# Barriers and Challenges

- Clinicians are busy!
- Slow uptake of AMS module and surveys



# Future Efforts



COLLABORATING MOI UNIVERSITY



INCREASING AWARENESS AND  
DISTRIBUTION OF THE TRAINING  
MODULE



# Video

<https://app.vyond.com/videos/407fbdb8-83f5-4825-896c-e8a647197bba>

Module:

[https://rise.articulate.com/share/qEfCHSUUXVMscOporMou\\_7tCL01OA5CK#/lessons/a\\_EDWP9jXSAGx2DdXTwwYVIRqyDgpWyf](https://rise.articulate.com/share/qEfCHSUUXVMscOporMou_7tCL01OA5CK#/lessons/a_EDWP9jXSAGx2DdXTwwYVIRqyDgpWyf)





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