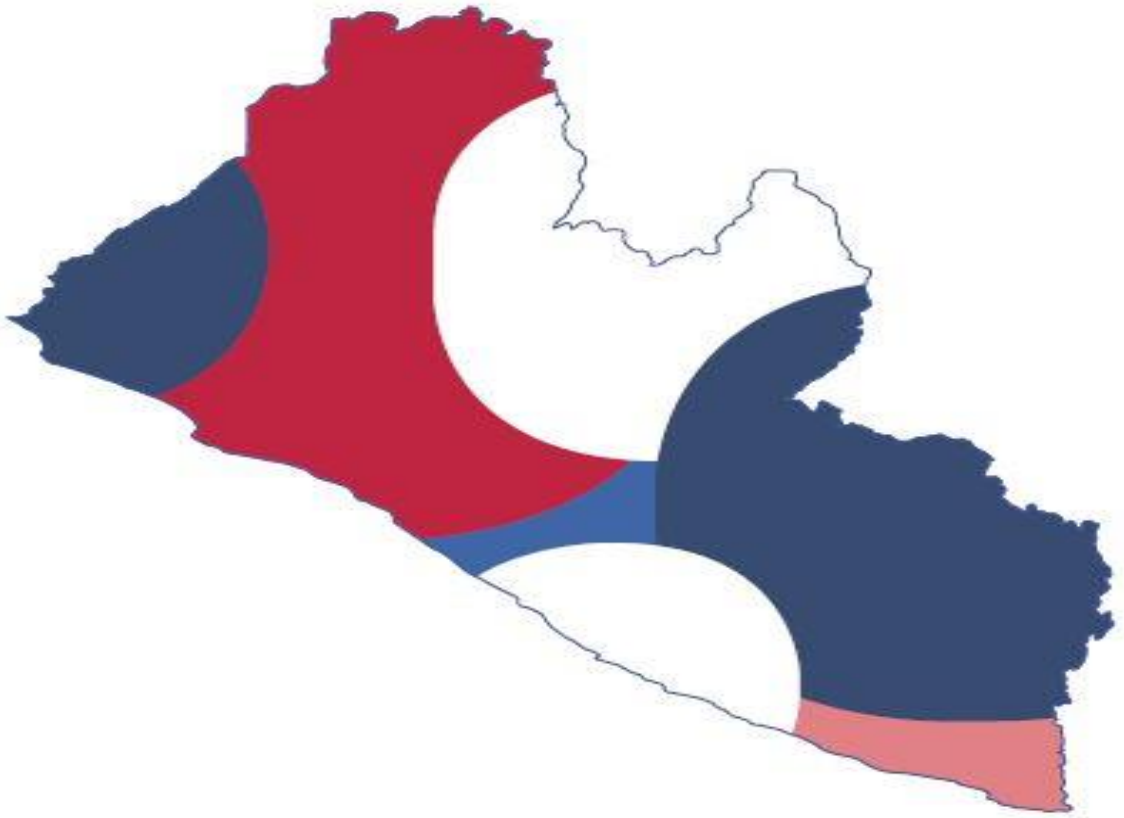
Anti-Microbial Resistance and Infection Prevention:
Strategies *and Challenges in Liberia*



Presentation Outline

- Background on Anti-Microbial Resistance (AMR)
- AMR National Action Plan – Liberia
- AMR Strategies
- Challenges to AMR
- Infection Prevention / Background in Liberia
- Infection Prevention Strategies

Background on AMR

- For the past few decades, AMR has been a growing threat to effective treatment worldwide;
- AMR results in reduced efficacy of antibacterial, Antiparasitic, antiviral and antifungal drugs, making the treatment of patients difficult, costly or even impossible;
- The impact is felt particularly by vulnerable patients, as it can result in prolonged illness and increased morbidity and mortality.

Background of AMR in Liberia

- In Liberia, AMR, is a real threat to the ability of currently used antimicrobials to cure common infections.

- There is evidence of antimicrobial resistance to TB drugs (NLTCP, 2014), anti-retroviral drugs (NACP, 2013) antimalarial drug (NACP, 2010) currently in use the country

- The improper use of antimicrobials in humans and animals as well as environmental accumulation of these substances all point to the need for instituting measures to control and contain AMR in Liberia.

Background of AMR in Liberia

- In 2018, Liberia's National Action Plan on Prevention and Containment of Antimicrobial Resistance was launched by the Vice President under the One Health Platform.

- This plan outlines 5 strategic objectives that the country believes will curtail and contain the spread of antimicrobial resistance in the country. These objectives are:

- To improve awareness and understanding of AMR through education and training

Background of AMR in Liberia

- To strengthen knowledge and evidence base through surveillance
- To reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures
- To optimize the use of antimicrobial medicines in human and animal health
- To ensure sustainable investment through research and development

AMR National Action Plan: Implementation

Strategies	Status Implementation
One Health Coordination Platform	Launched
AMR Technical Working Group	Established and functional
AMR National Action Plan	Developed, validated and launched

AMR National Action Plan: Implementation

Strategies	Status Implementation
M & E framework	Developed and incorporated in the AMR NAP
5 years Operational plan (Human/Animal / Agri)	Developed and budgeted
Full Implementation of NAP	Pending

AMR strategies

- As per global recommendation, Liberia identified the AMR & GLASS focal person from the Pharmacy Division of the Ministry of Health

- Collaboration with laboratory units at MoH NPHIL/Ministry of Commerce and partners to collect data on status of AMR

- Developed statement on amending the Public Health Law to include the “Keep Antimicrobial Effective” Legislation on the use of antimicrobial agents in human, animals, plants and the environment

AMR strategies: Human

- Bacteriology capacity at 3 laboratories for conduction detection and reporting pathogens showing antimicrobial resistance (US CDC)
- Healthcare associated infections programs are being conducted at designated facilities (Redemption Surveillance)
- In process of conducting a 3 month healthcare facility study on the prescription and dispensing on antibiotic
- Also including a 3 month community –based study to assess the knowledge, attitude, and practice of self medication with antimicrobial agents by adults who visited pharmacy for treatment

AMR strategies: Animals

- Established a central veterinary laboratory (CVL) epidemiological unit within the Ministry of Commerce to detect and confirm AMR in animal health (FAO)

- Conduct selected testing of food / meat samples for analysis to monitor antibiotics residue in meat products at the slaughterhouses (FAO)

Looking Forward: AMR

- Enhance AMR capacity in pre-service institutions (human, animal, environmental)

  Incorporate AMR / IPC in school curriculums

- Enhance AMR capacity in-service institutions (human, animal, Environmental)

  Develop an in-service AMR orientation package

- Revise National Medicine Policy to include AMR

- Pilot AMR stewardship program in selected facilities

Challenges to AMR

- Inadequate knowledge among health, agriculture & environmental workers on AMR surveillance
- Programs are partners / donors driven
- Poor maintenance of Health facility dispensaries
- Improper prescribing of antibiotics without consultation of the standard treatment guidelines and essential medicines list
- Operation of community pharmacies and drug stores by entrepreneurs rather than professionally trained healthcare providers (Black Beggers)

Challenges Cont.

- It is common practice for community pharmacies to dispense antibiotics based on request from customers without prescription from a registered healthcare provider
- Little regulation and no monitoring is in place to address such practices that may be contributing to the development and spread of antibiotic resistance
- To date, however, systematically collected evidence on antimicrobial prescribing and dispensing practices in health facilities and communities is unavailable for Liberia

Infection Prevention: Background

- The 2014 -16 Ebola virus disease (EVD) outbreak in Liberia highlighted critical gaps in the health system

- Poor knowledge and adherence to basic Infection Prevention and Control (IPC) practices was a key contributor to the devastating Ebola outbreak; resulting in EVD transmission among patients and HCWS within facilities and communities

- During the Ebola response (2015) the IPC taskforce produced IPC protocol and the Safe Quality Service (SQS)– this was however limited to Ebola

Infection Prevention

- Key lessons learnt was that to prevent future outbreaks, quality services and patient safety (which includes IPC) must be prioritized

- Consequently, Ministry of Health (MoH) established the Quality Management Unit (QMU) which includes the IPC program.

- The National IPC program consists of 8 core functions, which is built around the WHO core components

- To date approximately 50% (4 of the 8) core functions of the IPC program are being implemented

Infection Prevention: Strategies

- Implementation of hand hygiene audits quarterly at hospitals. The first Hand Hygiene observation tool developed in 2016.
- Developed protocol for the implementation of surgical site infection pilot at the country Public Health Hospital.
- In process of developing a standardized protocol / guidelines on Integrated Severely Infectious Diseases Unit (InSitu)

THANK YOU