ASLM
Anti-microbial Resistance in Africa and Global Health Security

9TH INTEREST WORKSHOP 2015
8 May 2015
Harare
Recent Jim O’Neill Report commissioned by the UK government predicts dire consequences of AMR:

“Drug-resistant infections will cause 10 million deaths a year and cost up to US$ 100 trillion a year by 2050”
Two of the five main AMR recommendations focus on diagnostics.

3. Support the development and use of relevant diagnostic technologies: if we had the right diagnostics, more patients would receive the right antibiotic to treat their infection, but fewer antibiotics would be prescribed unnecessarily.

5. Modernise the way surveillance of drug resistance is done and used globally: a more joined up and digital global approach is needed, using the latest advances in molecular testing and informatics, to improve access to real-time global-scale surveillance information.
Global Health Security Agenda

The Global Health Security Agenda is an effort by nations, international organizations and civil society to:

- Accelerate progress towards a world safe from infectious disease threats
- Promote global health security as an international priority
- Spur progress towards full implementation of the 2005 WHO International Health Regulations
Global Health Security Agenda

- In 2014, 11 GHSA action packages were developed, including a specific action package on anti-microbial resistance

- The Action Packages form a comprehensive “Prevent-Detect-Respond” 5-year framework for governments and partners

- These align with ASLM2020 Goals
ASLM 2020 Strategic Goals

- Strengthen Africa’s laboratory workforce
- Laboratory accreditation
- Support National Public Health Reference Laboratories
- National and regional regulatory environments

Health Systems Strengthening Partner

“Excellence in African Laboratories Advancing Health”
GHSA Antimicrobial Resistance Action Package

- **Five-Year Target**: Develop an integrated package of activities to combat antimicrobial resistance, spanning human, animal, agricultural, food and environmental aspects.

- **Five-Year Action Items (7)** have been developed that are consistent with the WHO process to coordinate development of an AMR Global Action Plan.
GHSA AMR Action Package

Action Item

- Ensure access to at least one reference laboratory for each country capable of identifying at least three of the seven WHO priority AMR pathogens

- Alternatively, one reference laboratory for each of the three priority pathogens should be in place.

- The WHO list of AMR pathogens of concern includes:
  - *Escherichia coli*: resistance to 3rd generation cephalosporins (ESBL) and to Fluoroquinolones
  - *Klebsiella pneumoniae*: resistance to 3rd generation cephalosporins (ESBL) and to carbapenems
  - *Staphylococcus aureus*: methicillin resistance, MRSA,
  - *Streptococcus pneumoniae*: resistance (non-susceptibility) to penicillin,
  - *Non-Typhoid salmonella (NTS)*: resistance to fluoroquinolones
  - *Shigella species*: resistance to fluoroquinolones
  - *Neisseria gonorrhoeae*: reduced susceptibility to 3rd generation cephalosporins
GHSA AMR Action Package

Action Items

- Support ongoing work with international organizations to develop and implement a harmonized approach for monitoring and surveillance of antimicrobial drug use and antimicrobial resistance in humans and animals, including interpretive criteria for susceptibility reporting.

- Collaboration in international initiatives to encourage and accelerate the discovery and development of inexpensive and rapidly deployable, point-of-care diagnostics.

- Develop and implement guidelines and standards for infection prevention.
Challenges to Improving AMR Response and Capacity in Africa

- Major health system challenges but few effective partnerships with coordinated action, vision and large scale impact
- Inadequate data and poor understanding of rational investment needs for AMR diagnostics
- Inadequate political support, policy and financing for strengthening diagnostics
- Need for strong institutions, leadership, management and technical skills
ASLM AMR Recommendations

- **Build evidence**
  - Strengthen the investment case for AMR diagnostics in Africa

- **Advocate and coordinate action**
  - Build motivation and partnerships to tackle the major AMR diagnostics access challenges

- **Ensure equity**
  - Amplify efforts to reduce inequity in access to AMR diagnostics

- **Strengthen people and institutions**
  - Strengthen skills and capacity for effective AMR diagnostics

Iterative cycle
Key AMR priorities for Africa

- Develop Maputo 2.0 - a new framework for lab networks, lab policy, strategies, and budgets to incorporate AMR surveillance, diagnosis and management

- Strengthen national public health laboratories and regional centers of excellence to conduct specialized ARM surveillance and diagnosis

- Ensure the above are accredited and staff are trained in specialized skills

- Establish a strong data management and reporting system for AMR

- Ensure there are strong logistics systems in place for sample referral both within countries and between countries

- Build partnerships between organizations and amongst national governments to tackle major AMR problems
Building a SUSTAINABLE ARM LABORATORY RESPONSE AND CAPACITY IN AFRICA

COMMUNITY LABORATORY CAPACITY
Correct sample collection and referral at community level

ASLM
AMR PRIORITIES

EXPAND and STRENGTHEN the African Public Health Laboratory Network
Strengthen pan-African AMR capacity and bio-surveillance

MAP AND TRACK AMR LABORATORY CAPACITY and functionality

SYSTEMS STRENGTHENING
Strengthen AMR lab policy, strategy, quality and referral networks

Core Principles:
- Incisiveness
- Collaboration
- Advocacy
- Ownership
- Coordination
- Sustainability

Collaboration
- WHO
- OIE
- AU/ACDC
- MOHS & Partners
ASLM has established a network of public health laboratories and institutes across Africa.

The network currently covers 28 countries and is expanding.

The network will be central to the AMR response.

http://www.aslm.org/what-we-do/aphln
The network is lead by 6 ASLM Collaborating Centers in:
- South Africa
- Nigeria
- Tanzania
- Senegal
- Kenya
- Ethiopia
National Lab AMR Priorities

- Priorities for the national public health laboratories with respect to AMR:
  - Need to become ISO accredited. SLIPTA is a step towards this
  - Need to implement protocols that are standardized across different labs
  - Need to network to share data
  - Need to contribute to AMR policy development on national and regional levels
  - The African Public Health Laboratory Network (APHLN) provides a framework for achieving the above
Key AMR Partners in Africa

- WHO
- Africa Union and African CDC
- African Ministries of Health
- Local organizations and NGOs
- African Public Health Laboratory Network and Collaborating Centers
- UNAIDS
- US Centers for Disease Control and Prevention
- PASER
- AIGHD
- Institute Pasteur
- Industry
- Others