



# ANTIMICROBIAL RESISTANCE GHANA'S STORY

**MARTHA GYANSA-LUTTERODT**



# OUTLINE

- Introduction
- Antimicrobial Resistance (AMR)
- Response to AMR
- Brief on Policy Process
- “One Health” AMR Policy for Ghana
  - Structure and content
  - Current status
- Conclusion

# GHANA FACTS AND FIGURES



- Ghana population 2015. - 27,410,000 (WHO)
- Ghana Life Expectancy 2015. - 61/64 (WHO)
- Ghana Health Expenditure Per Capita Int. \$ 2014 - \$145 (WHO)
- Ghana Total Health Expenditure as part of GDP 2014 - 3.6% (WHO)
- Ghana GDP Per Capita 2015. - \$1381.40 (World Bank)

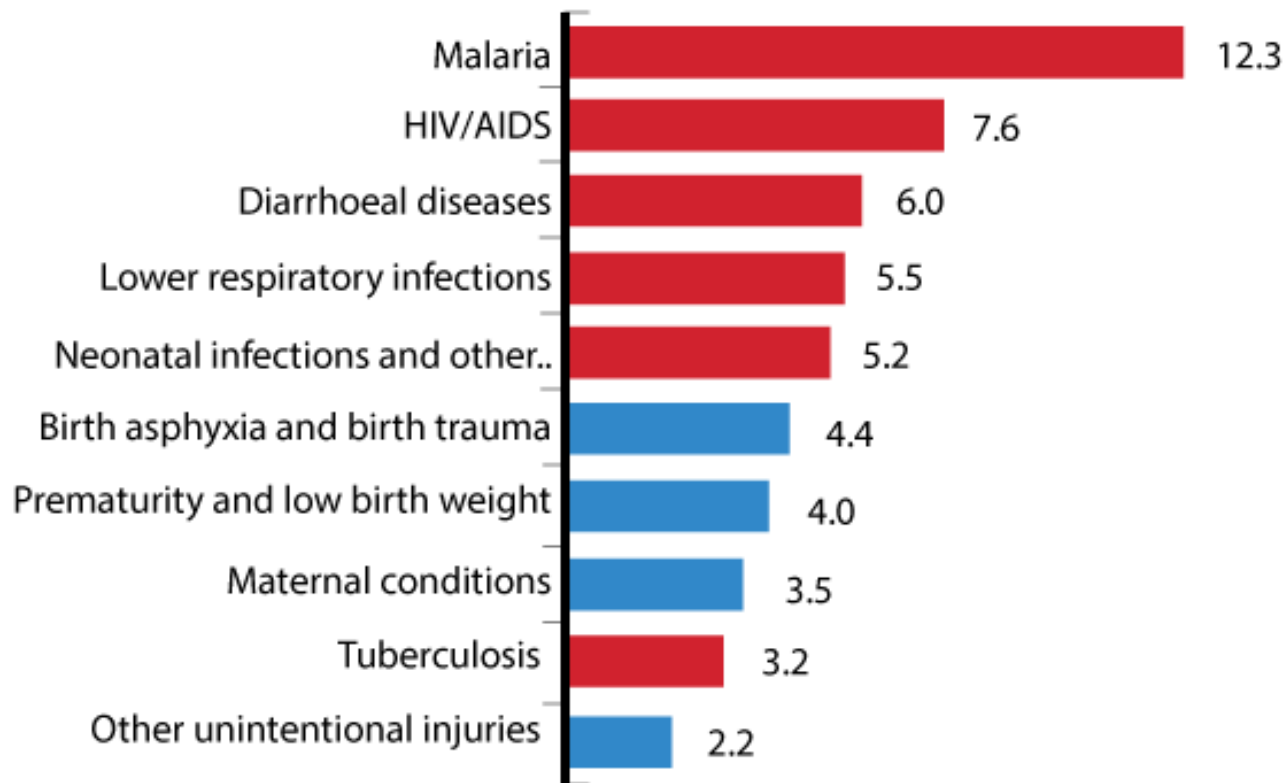
# CAUSES OF MORTALITY - GH



## Major causes of mortality

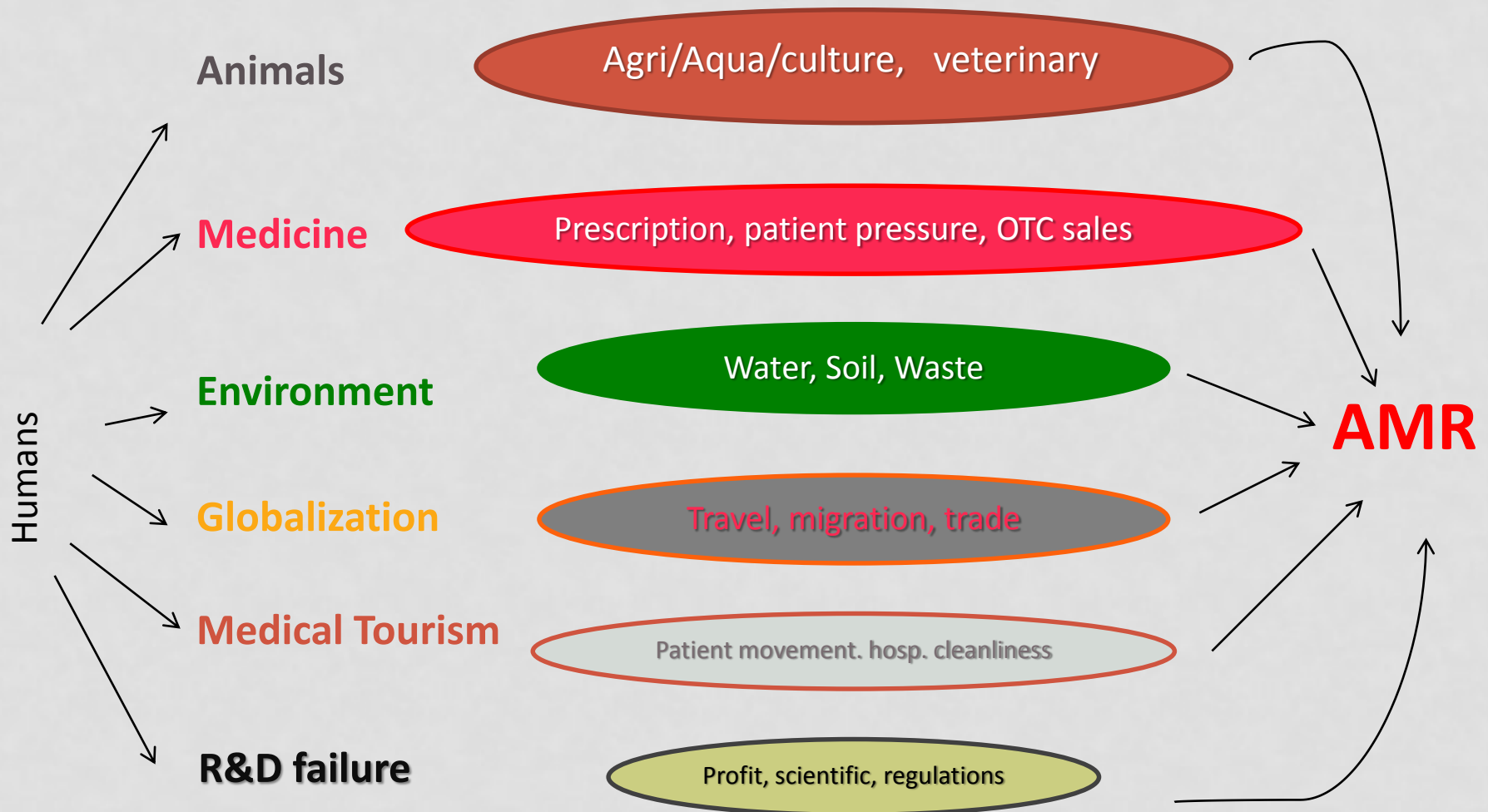
**60%** Conditions affected directly by AMR

**40%** Conditions Not directly affected by AMR





# WHAT DRIVES AMR ?





# Regulated vrs unregulated access



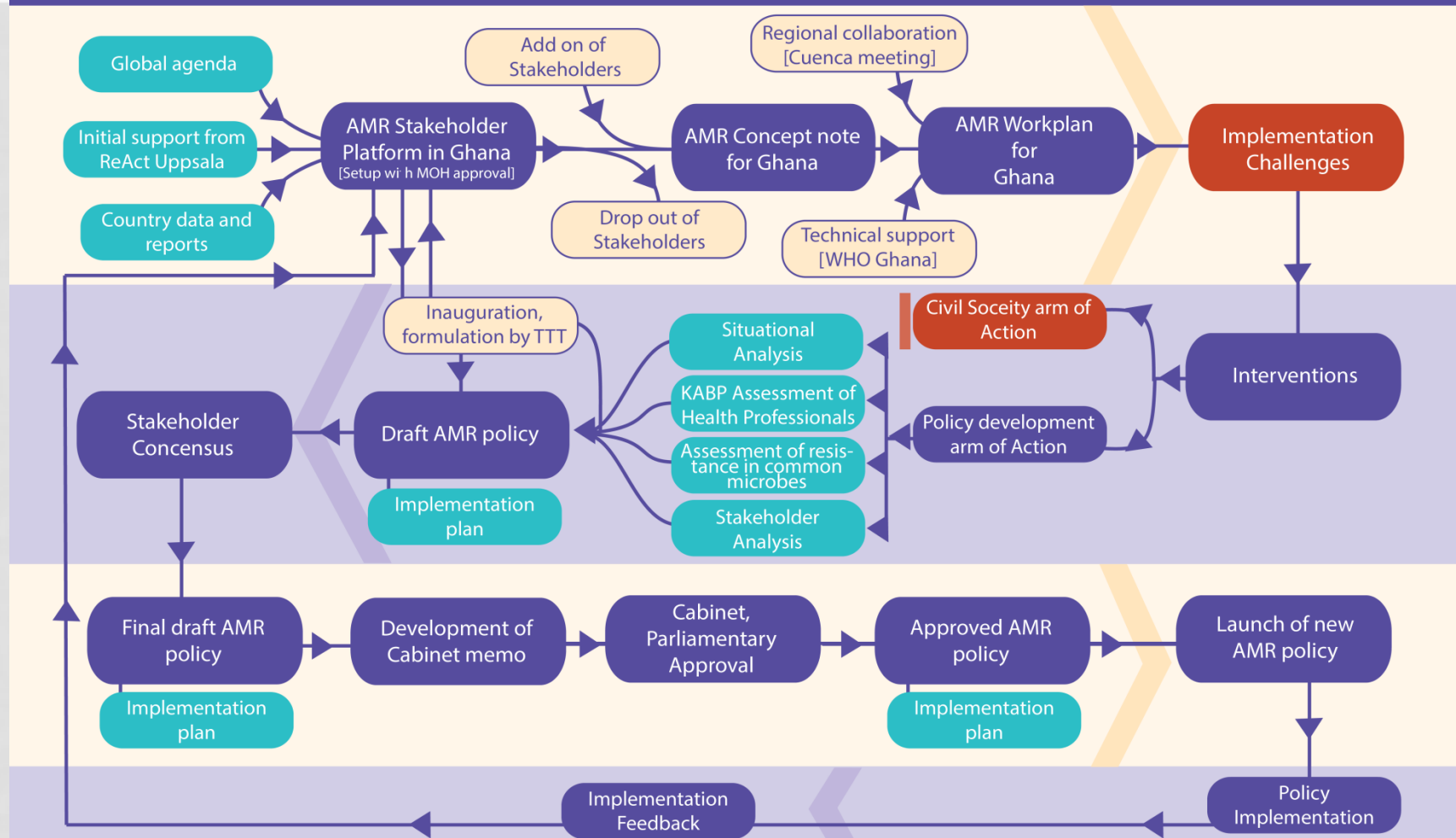
Irresponsible Use = Antimicrobial Resistance



# GHANA AMR POLICY PROCESS FLOW

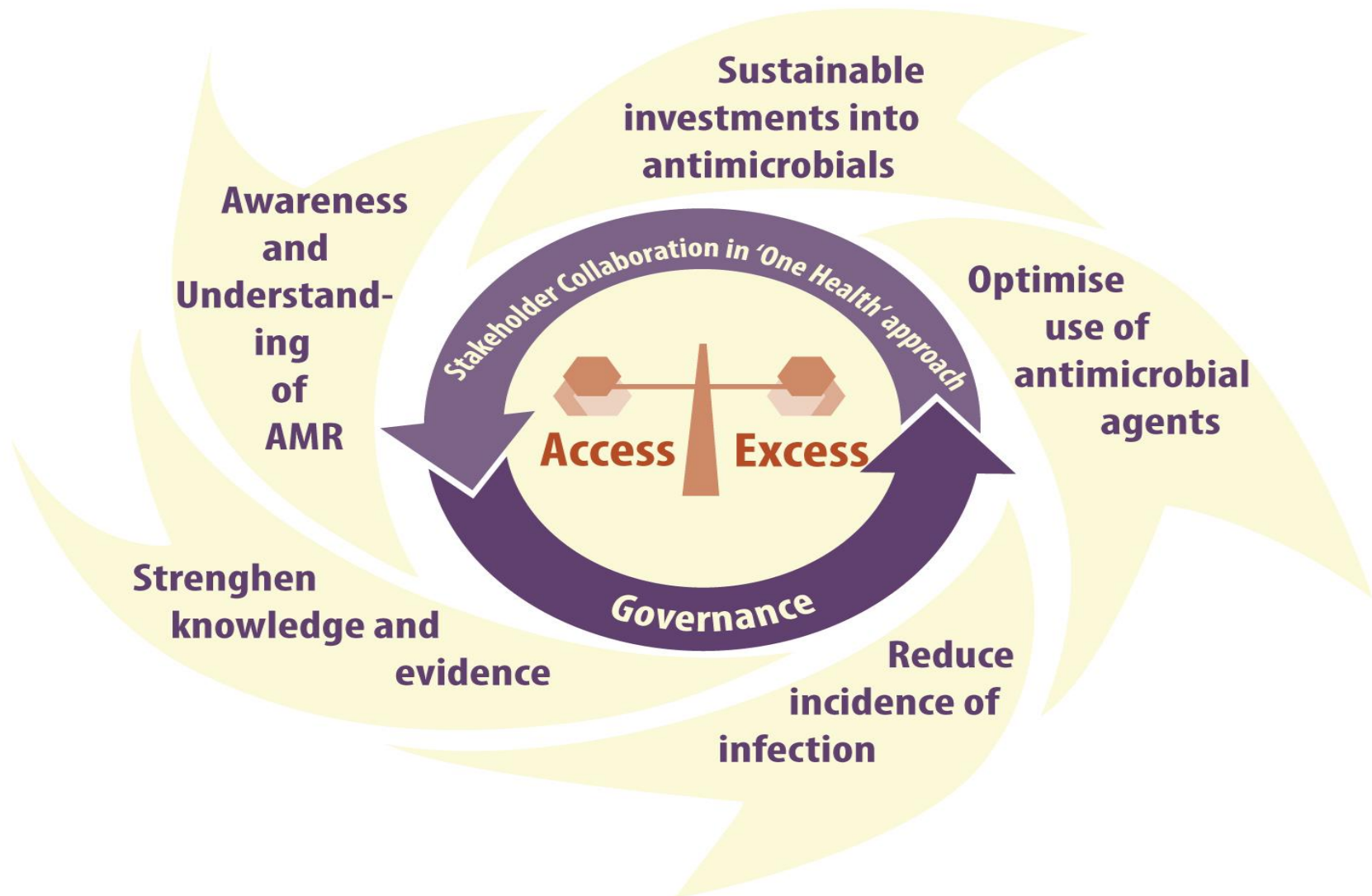


## Policy Process for Antimicrobial Resistance Policy for Ghana





# "ONE HEALTH" AMR POLICY







# GOAL

- The overall goal of this policy is to
  - improve and sustain the health of the population
  - as well as enhancing food security
  - ensuring the responsible use and access to safe, effective and affordable antimicrobials of good quality
  - slow the emergence of resistant microbes and prevent the spread of resistant infections in
    - **“one-health” approach”.**
    - **( Animal, Man and Environment )**



# ONE HEALTH PARTNERS IN GHANA

- Ministry of Health, Ministry of Food and Agriculture, Ministry of Environment Science, Technology and Innovation, Ministry of Fisheries and Aquaculture, Civil Society Organisations, Academia and Research Institutions
- The Tripartite- WHO, FAO and OIE



# POLICY STATEMENTS

- Notes to policy actions:
  - Short statement that gives the general direction and responsibility to address the specific objective
  - Identified areas for policy interventions are grouped/arranged under specific objectives
  - Policy statements to address the specific identified areas



# OBJECTIVE 1

- To improve awareness and understanding of AMR through effective communication, education and training
  - enhance the knowledge and understanding of the risks associated with AMR in all sectors
    - **Communication and education, training**
      - Continuous education of AMR
      - Introducing AMR into educational curricula



# OBJECTIVE 2

- To strengthen knowledge and evidence base through surveillance and research
  - **National surveillance**
    - Establishing a national monitoring system on AM
    - Data management systems
  - **Consumption surveillance**
  - **Laboratory services**
    - Strengthening laboratory capacity across all sectors



# OBJECTIVE 3

- To reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures and good agricultural and biosecurity practices
  - **Infection prevention and control**
    - Promoting use of IPC
    - Developing SOPs and guidelines - all sectors
    - Vaccination
    - Vector control measures





# OBJECTIVE 4

- To optimize the use of antimicrobial agents in humans, aquaculture, plant production and in animal health in the 'one health' approach
  - Promote responsible use of antimicrobials at all levels
    - Health facilities
    - Veterinary, aquaculture, plant health
    - Environment and industry



# OBJECTIVE 5

- Develop the economic case and create an enabling environment for sustainable investment that takes account of the needs of Ghana, and increase investment in new medicines, diagnostic tools, vaccines and other interventions
  - Implementation of the one health concept through research and development
  - Manufacturing, supply and distribution
  - Regulation and enforcement
  - Stakeholder collaboration and governance



# SO FAR

- Cabinet approved policy and national action plan
- National Action Plan
  - Baseline data of activities for NAP collected
  - Implementation of policy - governance
  - Monitoring and Evaluation mechanisms

# GHANA'S POLICY AND NATIONAL ACTION PLAN



Republic of Ghana

## Policy on Antimicrobial Use and Resistance

Inflection prevention and control  
Antimicrobials Antibiotic Consumption  
Policy Health Data Misuse Sensitization  
Antibiotics Farms Abuse Use Misuse Farmers Surveillance  
Fungi Food Drug Resistance Hygiene  
Bacteria National Action Virus Access  
Testing Health professionals Training  
Infectious diseases Veterinarian Agriculture  
Investments Environment



## GHANA NATIONAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE

2 0 1 7 - 2 0 2 1



Ministry of Health  
Ministry of Food and Agriculture

# REPORTS, TRAINING MANUALS EDUCATIONAL MATERIAL



ReAct - Action on Antibiotic Resistance

Knowledge, Attitude  
of Health oriented  
Ghana on Antibiotic Resistance

ReAct Civil Society

**ReAct**  
Action on Antibiotic Resistance



## Fighting Antibacterial Resistance in Ghana

Manual for Training  
Civil Society Organisations in Health







# PUBLICATIONS AND PAPERS

Advertisement

## JOIN US

in delivering science for better health

### Mental health interventions in schools

Comment

## THE LANCET Infectious Diseases

Search for  in All

Home | Journals | Content Collections | Multimed

The Lancet Infectious Diseases, [Volume 13, Issue 12](#), Pages 1006 - 1007, December 2013  
doi:10.1016/S1473-3099(13)70196-8 [Cite or Link Using DOI](#)

Published Online: 17 November 2013

Copyright © 2013 Elsevier Ltd All rights reserved.

### Antibiotic resistance in Ghana

[Martha Gyansa-Lutterodt](#)

Ghana's 24.5 million people face a double disease burden of communicable and non-communicable morbidity and mortality. Malaria, HIV/AIDS, neonatal diseases, maternal issues, diarrhoeal diseases are the major causes of mortality. Among bacterial infections, the major pathogens are *Escherichia coli*, *Klebsiella* spp, *Salmonella* spp, pneumococci, and *Staphylococcus aureus*.

In 2007, Enweronu-Laryea and Newman<sup>1</sup> found that minimum inhibition concentration for tetracycline, cefuroxime, ciprofloxacin, and gentamicin suggested some level of resistance, likely to erode control and treatment. Since 2007, no more studies were done until the establishment of the Monitoring and Evaluation of Resistance (ADMER) project in March 2010, with support from the Danish Ministry of Foreign Affairs.

D-13-01124  
S1473-3099(13)70196-8  
Embargo: Nov 17, 2013—00:01 [GMT]

### Antibiotic resistance in Ghana

Ghana's 24.5 million people face a double disease burden of communicable and non-communicable diseases equally causing morbidity and mortality. Malaria, HIV/AIDS, neonatal diseases, maternal issues, diabetes, cardiovascular diseases, cancers, and diarrhoeal diseases are the major causes of mortality. Among bacterial infections, the most important pathogens are *Escherichia coli*, *Klebsiella* spp, *Salmonella* spp, pneumococci, and *Staphylococcus aureus*.

In 2007, Enweronu-Laryea and Newman<sup>1</sup> found that minimum inhibition concentration for these pathogens to basic antibiotics like cefuroxime, ciprofloxacin, and gentamicin suggested some level of resistance, likely to erode substantial gains made in infection control and treatment. Since 2007, no more studies were done until the establishment of the Antibiotic Drug Use and Monitoring and Evaluation of Resistance (ADMER) project in March 2010, with support from the Danish Ministry of Foreign Affairs.

value for money. Finally, uncontrolled use of antibiotics in agriculture, especially veterinary use, is worrying, and clear evidence and policy directions for the veterinary community are needed. Unfortunately, data are scant. The establishment of an antimicrobial resistance working group, supported by Swedish International Development Agency, has helped to move research into practice. This working group brings together all researchers, policy makers, non-governmental organisations, civil society groups, media, academia, professional bodies, veterinary practitioners, industry, and those who work in infection prevention, control, and treatment. Civil society is also being engaged through a study to find out knowledge, attitudes, beliefs, and practices to develop appropriate messages and change attitudes to antibiotic use. The continuous review of Standard Treatment Guidelines has also been useful.<sup>4</sup> In 2011, Ghana developed and launched its

First infection control policy which sets out basic



Published Online  
November 17, 2013  
[http://dx.doi.org/10.1016/S1473-3099\(13\)70196-8](http://dx.doi.org/10.1016/S1473-3099(13)70196-8)  
See Online/Commission  
[http://dx.doi.org/10.1016/S1473-3099\(13\)70318-9](http://dx.doi.org/10.1016/S1473-3099(13)70318-9)

For more on the study to change attitudes on antibiotic use see <http://www.cso-reactgroup.org>  
For the ADMER project see <http://www.admerproject.org>



# PATHWAY TO OUR SUCCESSES



- Our Mentors.....
- Political commitment
- Collaborations and Partnerships
- Evidence from Academia (ADMER project)
- Joint External Evaluation
- Measurability of Indicators
  - Use of M&E focal points of Ministries developed the M&E



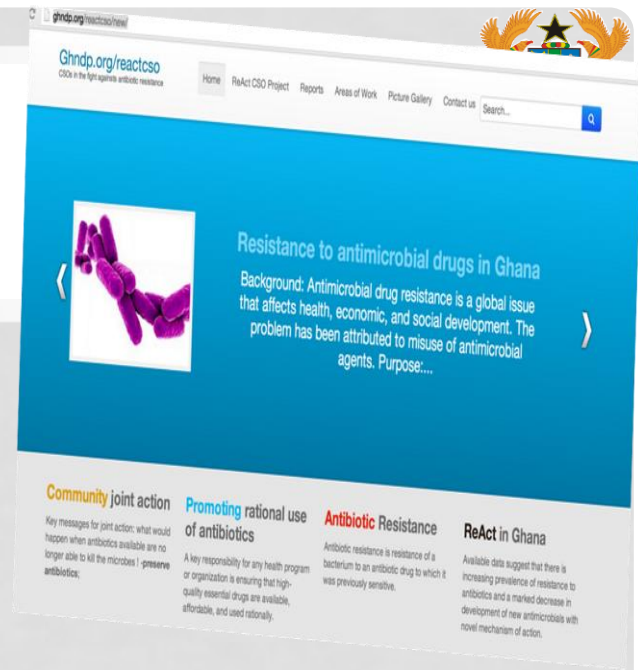
# OUR CHALLENGES

- Maintaining the momentum
- Health systems: Infrastructure, human resource, supply chain integrity, Regulations
- 2011-2017
  - Slow process.....the policy process
  - Several Health Ministers
- Managing donor interests
- Moving policy into practice- Implementation

# LESSONS LEARNT



- Champions at all the entry points
- Leadership
- Working together
  - Strategy development not an event
  - Capacity
  - Shared skills
- Information and resource sharing
- Role of civil society





# ACKNOWLEDGEMENT

- Expanded AMR TWG
- MoH and other Ministries and Agencies
- Food and Agriculture Organisation (FAO)/Secretariat
- OIE
- WHO Country Office
- ReAct Uppala
- ADMER Project
- DFID TA



- **THANK YOU**