

MINISTRY OF HEALTH, GHANA

CONCEPT NOTE

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## **Towards a national policy platform for management of antibiotic resistance in Ghana**

4/4/2012

## Executive summary

Access to safe effective affordable medicines is one of the most important public health considerations in Ghana and in the African Region as a whole. However the majority of people in the region do not have regular access to good quality safe and affordable essential medicines. Available data suggest that there is increasing prevalence of resistance to antibiotics and a marked decrease in development of new antimicrobials with novel mechanism of action.

The annual reports of the pharmacy division of the MoH over the years depict high level of use of antibiotics at the Out Patient Department (OPD) at the hospitals. The pharmaceutical sector strategic plan (2012 – 2014) seeks to address this phenomenon by developing a comprehensive National Anti-biotic Use and Resistance Surveillance policy that will ameliorate the situation.

The purpose of this concept note is to address the issues of antibiotic resistance through training and capacity building of health professionals, non-governmental organizations, academic and scientific institutions, professional associations, the private sector, and the media to tackle this problem head-on through the development of a national antibiotic policy and to strengthen partnerships with major stakeholders to create awareness and mitigate the effect of antibiotic resistance. Key activities to be undertaken include the following:

- Mapping of stakeholders on the platform
- KABP survey on ABR for health professionals
- Baseline study on the level of resistance of 5 key antibiotics
- Establish surveillance on antibiotic use and resistance
- Organise Training workshops on ABR for health workers
- Develop messages, documentaries, fact sheets etc. on ABR
- Organise media events on ABR
- Develop a national antibiotic policy
  
- Document the policy development and implementation process

The office of the Director of Pharmaceutical Services will host the project with the support of a recruited project coordinator who will be seconded from the Ministry of Health to handle the day-to-day implementation of the project.

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The total budgeted amount envisaged for the first year activities is Fifty-five thousand US Dollars (\$59,950.00).....	<b>Error! Bookmark not defined.</b>
(See attached budget).....	<b>Error! Bookmark not defined.</b>

## List of Abbreviations

ADMER	Antibiotic Drug use, Monitoring and Evaluation of Resistance
AIDS	Acquired Immunodeficiency Syndrome
AMR	Antimicrobial Resistance
ASU	Antibiotic Smart Use
BMC	Better Medicines for Children
CSO	Civil Society Organisations
DDPS	Deputy Director of Pharmaceutical Services
DTCs	Drugs and Therapeutics Committee
EML	Essential Medicines List
EPN	Ecumenical Pharmaceutical Network
FDB	Food and Drugs Board
GARP	Global Antibiotic Resistance Partnership
GHS	Ghana Health Service
GNDP	Ghana National Drugs Programme
INDEPTH	International Network for the Demographic Evaluation of Populations and Their Health
KABP	Knowledge, Attitude, Beliefs And Practices
KNUST	Kwame Nkrumah University of Science and Technology
LA	Latin America
MDGs	Millennium Development Goals
MeTA	Medicines Transparency Alliance
MoH	Ministry of Health
MRSA	Methicillin Resistant Staphylococcus Aureus

NDP	National Drugs Programme
NMIMR	Noguchi Memorial Institute for Medical Research
PMAG	Pharmaceutical Manufacturers Association of Ghana
ReAct	Action on Antibiotic Resistance
SEA	South East Asia
SIDA	Swedish International Development Corporation Agency
STG	Standard Treatment Guidelines
UGMS	University of Ghana Medical School
WHO	World Health Organisation

## **1.0 Introduction**

Available data suggest that there is increasing prevalence of resistance to antibiotics and a marked decrease in development of new antimicrobials with novel mechanism of action. The threat of antibiotic resistance (ABR) is ever increasing with serious implications on health indicators especially the health related MDGs. Resistance of microbes to antimicrobials though a natural phenomenon, has been compounded by our actions and or inactions making treatment of common bacterial infections a challenge. Misuse, poorly regulated access, ignorance, counterfeiting, etc. are some of those factors compounding the development of resistance. To stem the tide, organisations and countries elsewhere are in the process of putting in measures and policies to safeguard the effectiveness and power of antibiotics for future generations.

Action on Antibiotic Resistance (ReACT), a non-governmental organisation based in Uppsala, Sweden has over the years championed the fight against antibiotic resistance. With support from governments and other institutions, ReACT seeks to help other organisations to spread the efforts being made at preserving antibiotics and slowing resistance to these effective medications.

### **1.1 Background**

Access to safe effective affordable medicines is one of the most important public health considerations in Ghana and in the African Region as a whole. However the majority of people in the region do not have regular access to good quality safe and affordable essential medicines. Governments cannot adequately regulate the local pharmaceutical sector to ensure that public health interests are safeguarded. This leads to a proliferation of medicines on the market that may be unsafe, unaffordable and of sub-standard quality or may even be counterfeits.

Many consumers have to rely on untrained peddlers for their supplies of medicines often of unknown origin or quality. This has led to inappropriate use of pharmaceuticals, based on demand rather than correct medical indication which is threatening to render current affordable antimicrobials useless.

The threat of antimicrobial resistance (AMR) is ever increasing with serious implication on survival of humans on earth. There are several reports indicating the failure of hitherto effective antibiotics. Septicaemia is being increasingly reported as the cause of death in many cases. Some reports indicate that antibiotics used in treating pneumonia in children are no longer giving the desired therapeutic results.

The annual reports of the pharmacy division of the MoH over the years depict high level of use of antibiotics at the Out Patient Department (OPD) at the hospitals. In some hospitals, seven (7) out of ten (10) OPD clients received antibiotics. At the community level, antibiotics are reported to be grossly abused. The abuse of antibiotics in poultry cannot be glossed over. The need to

address these precarious situations now and to save future generations cannot be overemphasized.

Other immediate key factors that worsen the already worrying situation include overcrowding in hospitals, poor health care infrastructure, and inadequate hospital hygiene, poor infection control practices in hospitals, and lack of reliable diagnostic tools and laboratory facilities that negatively impact prescribing patterns.

The pharmaceutical sector strategic plan (2012 – 2014) seeks to address this phenomenon by developing a comprehensive National Anti-biotic Use and Resistance Surveillance policy that will ameliorate the situation. In order to initiate change, a national effort to analyse the local situation will be undertaken. This will be done by a multidisciplinary group with representatives from all relevant sectors, such as ministry of health, clinicians involved in hospital or outpatient care, veterinary medicine, agriculture, pharmacies and regulatory agencies. Furthermore, civil society organizations and non-governmental organizations would be engaged.

## **2.0 Goal, objectives and specific objectives**

The goal of the project is to save lives, contain costs and improve health by improving access to and use of good quality antibiotics and manage antibiotic resistance.

### **2.1 objectives**

Broad objective:

- Develop and implement an ABR policy

The specific objectives are to:

- Review the knowledge attitudes beliefs and Practises (KABP) of health professionals on ABR
- Establish surveillance on antibiotic use and resistance
- Increase capacity of health professionals and laboratories to deal with ABR issues in the health system
- Link medicine selection to work on antibiotic surveillance
- Review and enforce the regulations on antibiotics in Ghana
- Generate data and information for behavioral change communication for rational use of antibiotics
- Work with CSOs to open up the community to ABR issues
- Document the process of developing and implementing the National Anti-biotic Use and Resistance Surveillance policy

## 2.2 Expected outputs

Output 1: Ghana to be better placed to meet country needs for technical support and advice on antibiotic policy development and reflect and address consumer concerns and issues on antibiotics including surveillance.

Output 2: Capacity of civil society organizations built to influence communities for more rational use of antibiotics among consumers

Output 3: Capacity of some health care providers built to influence and work with policy makers for more rational use of antibiotics among prescribers and dispensers.

Output 4: Strengthened partnerships between policy makers, academic institutions, consumers and other stakeholders to enforce regulations on antibiotics acquisition and use to mitigate antibiotic resistance.

Output 5: A cross-learning agenda developed on how to implement programs such as antibiotic stewardship, smart use of antibiotics and other effective innovations; and how the policy in Ghana was developed and implemented.

## 2.3 Expected outcome

By 2015 Ghana should have a sustained national agenda to respond effectively to antibiotic use and manage antibiotic resistance and become the platform for African agenda on antibiotic resistance management.

## 3.0 Strategies

**Output 1:** Ghana to be better placed to meet country needs for technical support and advice on antibiotic policy development and reflect and address consumer concerns and issues on antibiotics including surveillance.

- A mapping exercise to engage interested and potential partners who would be involved in developing the antibiotic policy
- Undertaking a survey to review, among key stakeholders, the current knowledge as well as gaps vis-à-vis the science, prevention and control of antibiotic resistance.
- Baseline study on the level of resistance of 5 key antibiotics currently used in Ghana



- Development of a national policy on antibiotic use and management of antibiotic resistance
- Development of behavioural change communication messages to support awareness campaigns and education targeting health care professionals (private and public settings)
- Regular engagements of stakeholders on the platform through quarterly meetings

**Output 2:** Capacity of health care providers built to influence and work with policy makers for more rational selection and use of antibiotics

- Capacity of health workers built in the selection and use of antibiotics based on surveillance data
- Capacity building through training of health personnel to deal with antibiotic resistance
- Establishment of 4 sentinel surveillance sites on antibiotic use and resistance

**Output 3:** Capacity of civil society organizations built to influence communities for more rational use of antibiotics among consumers

- Assessment of the knowledge, attitudes, beliefs and practices of Civil society organizations on antibiotic use and antibiotic resistance
- Development of behavioural change communication messages
- Sensitization and awareness campaigns and education targeting consumers through civil society organization

**Output 4:** Strengthened partnerships between policy makers, academic institutions, consumers and other stakeholders to enforce regulations on antibiotics acquisition and use to mitigate antibiotic resistance.

- Collaboration with the Pharmacy Council and Pharmaceutical Society of Ghana to enforce regulations on antibiotics at the community pharmacies
- Collaboration with the Food and Drugs Board to enforce regulations on importation, storage and warehousing, prescription, sales and safety monitoring of antibiotics
- Enforcement of Infection Control polices in health facilities in collaboration with the ICD, Ghana Health Service
- Development of documentaries, fact sheets, newsletters with continuous engagement of policy makers on issues of antibiotic resistance
- Undertaking various research activities on antibiotic prescribing, consumption and resistance.
- Regular write-ups on rational use of antibiotics, antibiotic resistance and antibiotic resistance management

**Output 5:** A cross-learning agenda developed on how to implement programs such as antibiotic stewardship, smart use of antibiotics and other effective innovations.

- Establish Collaboration between Ghana and other African countries
- Collaboration with other regions (South East Asia, Latin America) to learn and promote best practises in antibiotic resistance management
- Fostering linkages and building capacity locally by collaborating with global partners; ReAct-Sweden, Uppsala University, Antibiotic Smart Use (ASU) project of Thailand, GARP and other relevant stakeholders.
- Development of a website linked to the ReAct website for information about the Ghana Policy Platform
- Documentation made and reviewed on the process of policy development and implementation in Ghana

#### **4.0 Key Activities**

- Mapping of stakeholders on the platform
- KABP survey on ABR for health professionals
- Baseline study on the level of resistance of 5 key antibiotics
- Establish surveillance on antibiotic use and resistance
- Organise Training workshops on ABR for health workers
- Develop messages, documentaries, fact sheets etc. on ABR
- Organise media events on ABR
- Develop a national antibiotic policy
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#### **5.0 Stakeholder Analysis**

The local working group has been involved with organisations and other key programmes in the health sector. It is envisaged that the ABR work will ride on the back of the existing health system to ensure buy-in and sustainability. Key partners in this endeavour will include:

1. MoH/GHS – Providing leadership and overall policy direction
2. GNDP – Experiences in project management and developing policies in a multistakeholder environment. It has coordinated a number of projects including BMC, MeTA, NDP, STG and the EML

3. FDB- Regulatory body in charge of product registration quality assurance and post marketing surveillance. They are important when it comes to quality of antibiotics on the Ghanaian market.
4. Universities – Research and capacity building support. The vision is to see the University of Ghana microbiology department, NMIMR, and KNUST having joint research, postgraduate or doctoral programmes to build capacity.
5. WHO – Providing programme support, funding and technical direction at the regions
6. ADMER Project – Already in ABR research. Also involved in capacity building and data generation
7. PMAG – Strategic in keeping quality control and quality assurance of antimicrobials produced by their membership
8. INDEPTH – Involved in demographic surveillance. Strategic in building on their existing structures to conduct surveillance on antibiotics
9. Professional bodies – Professional and political direction for this project
10. CSOs – Community entry, to capture the general public and for advocacy
11. Veterinary Practitioners Association - To handle animal aspects of the ABR activity
12. Media persons – important to carry the message on ABR forward.

## **6.0 Roles & responsibilities**

### **1. National Policy Platform**

- A national multi-stakeholder group
- Planning national implementation
- Identifying specific country needs, analyse and report on these
- draft proposal with work-plan developed
- Informing about any new partnerships with other groups to improve synergies e.g. GARP

### **2. ReAct Uppsala**

- Inform about guidelines, procedures and best practices.
- Support with the development of processes (Tool Box for Antibiotic Resistance)
- Technically assessing the proposal and budget and recommending (full/partial/conditional) approval

- Enabling money transfer once the work-plan has been approved.
- Encouraging, requesting and receiving regular reporting of activities.
- Providing technical assistance (upon request and if feasible/possible).
- Assisting with implementation of the work-plan through TA if necessary.

**3. Other Partners** - University of Uppsala, GARP, Other African Countries, Antibiotic Smart Use (ASU) project of Thailand, Universities in Ghana and Civil Society organizations and other relevant stakeholders

- There will be collaboration between the Project Coordination Unit, ReAct and these organizations for capacity building activities and research

**4. Coordination Unit**

- The Office of the Director of Pharmaceutical Services, Ministry of Health Ghana will host the Coordination Unit.
- Part time (50%) staff will be assigned to coordinate activities on the policy platform located in the Office of the Director of Pharmaceutical Services.
- The Coordinator (0.5 FTE i.e. two and a half days a week) will serve as the first point of contact and as external representative, and will manage the delivery of Ghana’s work plan.
- An administrative assistant (0.5 FTE i.e. two and a half days a week) recruited support the Coordinator in a variety of activities.
- Website management services (on average 8 hours a month for routine servicing/website maintenance, plus additional database development work).
- Among others, the coordination unit will be responsible for buying in services to cover the required accountancy and audit reporting. These services include:
  - Accountancy (anticipated 8 hours a month spread over two days);
  - Independent Audit (anticipated 4 hours a month, to check books and files; accounting procedures and disbursement of funds, financial reports etc

**7.0 Logical Framework**

	<b>Objectively verifiable Indicators</b>	<b>Means of Verification</b>	<b>Risks / Assumptions</b>
<b>GOAL</b>			
<b>To save lives, contain costs and improve health by improving access to and use of good quality antibiotics and manage antibiotic resistance.</b>	By end the end of 2014 a broad group of stakeholders will have been engaged in ABR issues	<ol style="list-style-type: none"> <li>1. Availability of a policy document on antibiotic resistance</li> <li>2. Fact Sheets, Documentaries on ABR</li> <li>3. Report of surveys on ABR</li> </ol>	<p><i>Risks</i> – conflicting priorities within the health sector</p> <p>–change in sponsoring government priorities</p> <p><i>Assumption</i> –Commitment and support of all</p>

	<b>Objectively verifiable Indicators</b>	<b>Means of Verification</b>	<b>Risks / Assumptions</b>
			stakeholders
<b>OUTCOME</b>			
<b>By 2015 Ghana should have a sustained national agenda to respond effectively to antibiotic use and manage antibiotic resistance and become the platform for African agenda on antibiotic resistance management.</b>	<ol style="list-style-type: none"> <li>1. Number of consistently active stakeholders on the policy platform</li> <li>2. Dialogue on relevant topics between stakeholders increased</li> </ol>	<ol style="list-style-type: none"> <li>1. Reports of stakeholder engagement activities</li> <li>2. Number of relevant publications, e.g. articles, policy briefs, etc.</li> </ol>	<p><i>Risks</i> – Waning of stakeholder interest and commitment</p> <p><i>Assumptions</i></p> <ul style="list-style-type: none"> <li>• Adequate funding is timely released</li> <li>• Political stability and commitment</li> <li>• Stakeholders work effectively together</li> </ul>
<b>OUTPUTS</b>	<b>Objectively verifiable Indicators</b>	<b>Means of Verification</b>	<b>Risks / Assumptions</b>
<b>1: Ghana to be better placed to meet country needs for technical support and advice on antibiotic policy development and reflect and address consumer concerns and issues on antibiotics including surveillance.</b>	<ol style="list-style-type: none"> <li>1. Number of stakeholders who are actively engaged in ABR issues</li> <li>2. Number of stakeholders with current knowledge on ABR</li> <li>3. Number of quarterly meetings held for stakeholders on the platform</li> </ol>	<ol style="list-style-type: none"> <li>1. Map of stakeholders on the policy platform</li> <li>2. Minutes of quarterly meetings of stakeholders on the policy platform</li> </ol>	<p><i>Risk</i> – Large number or changing membership of stakeholders on the platform</p> <p><i>Assumption</i> – Adequate incentives exist or can be created for initial and continuing engagement</p>
<b>2: Capacity of health care providers built to influence and work with policy makers for more rational selection and use of antibiotics</b>	<ol style="list-style-type: none"> <li>1. Number of health care providers trained in issues of ABR</li> <li>2. Number of established sites for monitoring antibiotic use and surveillance on ABR</li> </ol>	<ul style="list-style-type: none"> <li>- Training workshop reports</li> <li>- Reports from sentinel sites</li> </ul>	<p><i>Risks</i></p> <ul style="list-style-type: none"> <li>- Health care professionals not willing to change</li> <li>- Strong vested interests in the status quo on antibiotic prescribing</li> </ul> <p><i>Assumptions</i></p>

	<b>Objectively verifiable Indicators</b>	<b>Means of Verification</b>	<b>Risks / Assumptions</b>
			<ul style="list-style-type: none"> <li>- Available facilities to be used as sentinel sites</li> <li>- Health care providers are keen on changing practices</li> </ul>
<b>3: Capacity of civil society organizations built to influence communities for more rational use of antibiotics among consumers</b>	<ul style="list-style-type: none"> <li>• Number of CSO engagements with communities</li> <li>• Number of awareness creation campaigns held</li> </ul>	<ol style="list-style-type: none"> <li>1. CSO activity reports</li> <li>2. Campaign messages developed</li> </ol>	<p><i>Risks</i></p> <ul style="list-style-type: none"> <li>- Not getting messages adequately across to community members due to translation difficulties</li> </ul> <p><i>Assumptions</i></p> <ul style="list-style-type: none"> <li>- Effective Collaboration with Civil Society groups</li> </ul>
<b>4: Strengthened partnerships between policy makers, academic institutions, consumers and other stakeholders to enforce regulations on antibiotics acquisition and use to mitigate antibiotic resistance.</b>	<ul style="list-style-type: none"> <li>• Number of documentaries and facts sheets developed</li> <li>• Number of medicine outlets sanctioned for flouting regulations</li> <li>• Number of ADR reports on antibiotics due to resistance</li> <li>• Number of researches on ABR undertaken</li> </ul>	<ol style="list-style-type: none"> <li>1. Abstract and journal articles</li> <li>2. Peer review meeting reports</li> </ol>	<p><i>Risks</i></p> <p>Reports generated from research will not be used for policy review or as guide for policy direction</p> <p><i>Assumptions</i></p> <ul style="list-style-type: none"> <li>- Availability of funds research work</li> </ul>
<b>5. A cross-learning agenda developed on how to implement programs such as antibiotic stewardship, smart use of antibiotics and other effective innovations; and how the policy in Ghana was developed and implemented.</b>	<ul style="list-style-type: none"> <li>• Number of other African countries getting interested in ABR issues</li> <li>• Number of collaborative activities/meetings between Ghana and the other regions</li> <li>• Regular entries in a process/outcome journal recording the pathway of policy development and implementation</li> </ul>	<p>Activity/Meeting reports</p> <p>Documents recording the process of development and implementation made throughout the process; a final document that captures reflections, key landmarks, and problems and how they were overcome.</p>	<p><i>Risks</i></p> <p><i>Assumptions</i></p> <ul style="list-style-type: none"> <li>- Funds available for regional exchange visits and meetings</li> </ul>

## 8. BENEFICIARIES

The general public is the ultimate beneficiary of this project using the policy platform for the development of a national antibiotic policy. Specific beneficiaries include health professionals, patients, academic institutions and policy makers

## **9. MONITORING, EVALUATION AND LEARNING**

The project will be managed by a country coordinating group led by the Director of Pharmaceutical Services. The project management and implementing partners in collaboration with the office of the Director of Pharmaceutical Services will enter into a results based agreement with beneficiaries. A project coordinator will be assigned to monitor and evaluate all activities undertaken by the project. Release of funds will be based on critical appraisal of activities, past experiences of working with other projects including results achieved.