FORUM REPORT

Antimicrobial Resistance and Non-communicable Diseases

Pharmaceutical Challenges in the 2030 Agenda

May 18th – 20th 2016 Tübingen, Germany
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The EPN Forum began in 2006, as a biannual event that brings together EPN all network members and donors. It is a platform for discussions, sharing experiences and best practices on emerging issues on pharmaceutical health services within faith-based health facilities. The Forum is also an amazing opportunity for network members to fellowship and network. The ultimate goal is to come away from the Forum with inspiration and tools of how best to deliver quality health services to the communities the network serves. The Forum is the main event; however, it is usually flanked by pre-events and side events in an effort to maximize the presence of so many members of EPN.
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1. **Abbreviations**

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AMF – m</td>
<td>Affordable Medicines Facility-malaria</td>
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<tr>
<td>AMR</td>
<td>Antimicrobial Resistance</td>
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<tr>
<td>ASP</td>
<td>AMR Stewardship Programs</td>
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<tr>
<td>CDU</td>
<td>Chronic Dispensing Unit</td>
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<td>DDD</td>
<td>Defined Daily Doses</td>
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<td>EML</td>
<td>Essential Medicine List</td>
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<td>GDF</td>
<td>Global Development Fund</td>
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<td>HiB</td>
<td>Haemophilus influenza type b</td>
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<td>HSS</td>
<td>Health Systems Strengthening</td>
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<td>LMIC</td>
<td>Low and Middle-Income Country</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>OTC</td>
<td>Over the counter</td>
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<tr>
<td>PCV</td>
<td>Pneumococcal Conjugate Vaccine</td>
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<td>PEPFAR</td>
<td>The President’s Emergency Plan for AIDS Relief</td>
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<td>PMI</td>
<td>President’s Malaria Initiative</td>
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<td>RDT</td>
<td>Rapid Diagnostic Test</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SIAPS</td>
<td>System for Improved Access to Pharmaceuticals and Services</td>
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<td>STGs</td>
<td>Standard Treatment Guidelines</td>
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<td>UHC</td>
<td>Universal Health Coverage</td>
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<td>BFTW</td>
<td>Bread for the World</td>
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<td>WCC</td>
<td>World Council of Churches</td>
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<td>FBO</td>
<td>Faith Based Organization</td>
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<td>CCIH</td>
<td>Christian Connections for International Health</td>
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2. Message from the Executive Director

The time of the Forum is always refreshing to all of us, meeting friends, donors and partners, engaging in discussions on how we can strengthen our healthcare systems, learning from each other through sharing of best practices that culminate into our business meeting. I count it a blessing to work with such great members, donors, partners and friends of EPN.

I specifically wish to thank those who supported the Forum 2016, in so many ways, including financially. I also express my gratitude to those who attended the Forum and contributed in various ways. It was a great Forum because of your presence and support.

In this forum we also experienced a change of guard as we saw Mr. Albert Petersen, Board Chair for almost 15 years pass on the button to Mr. Marlon Banda, the new board chairman of EPN. Albert’s vision and stewardship has, through the years, contributed to immense growth within the EPN Network. The various roles that he has played will continue to add to the success of EPN.

As I have done on many occasions, I wish to thank Albert for all his dedicated service. I, and the entire EPN staff, join in wishing him God’s blessings. Further, we wish Marlon success as he begins his service to EPN and it is our pledge to support and follow his guidance.

God Bless You,

Dr. Mirfin Mpundu
Executive Director – Ecumenical Pharmaceutical Network (EPN)
3. Acknowledgement

Special thanks go to EPN’s partners and Friends who in countless ways contributed to the success of the 6th EPN Forum. May God richly bless you;

- action medeor – Germany (AMG)
- Bread for the World (BfTW)
- Christian Connections for International Health (CCIH)
- Community Development Medical Unit (CDMU) Odisha
- DIFAEM - German Institute for Medical Mission
- Management Sciences for Health (MSH)
- Management Sciences for Health – Systems for Improved Access to Pharmaceuticals and Services (MSH-SIAPS)
- World Council of Churches (WCC)
- Mike Upio and Dr. Leone Kintaudi – interpreters - (English/French)
- Mission for Essential Drugs and Supplies (MEDS)
- Action against Antibiotic Resistance (ReAct)
- Tübingen University
4. Member Reflection

The EPN Forum history dates back to 2004 at the Pharmaceutical Advisory Group (PAG) meeting in Moshi, Tanzania where a decision was made to hold EPN biannual meetings. The first Forum was held in Tübingen, Germany in 2006. This coincided with EPN’s twenty-five (25) years anniversary where 83 participants from 29 countries attended. Ten (10) years later, in 2016, the Forum was held in Tübingen again, this time it was a bigger and stronger, bringing together 105 attendees representing 26 countries and 52 organizations.

According to Dr. Jane Masiga, former EPN Board Treasurer who was also present at the very first Forum, the 2016 theme was well spelt out with a clear focus on current global health issues. Presenters challenged participants on current practices and gave takeaways that will be implemented back home. Additionally Poster Presentations offered members at the conference an opportunity to show-case their work.

The Call to action declared at the end of the forum stirred members to partner and collaborate with the rest of the world on the fight against Antimicrobial Resistance (AMR) an urgent public health issue threatening the many progress made in treating infectious diseases. This forum proved that Faith-based Organizations (FBOs) are capable of developing innovative ideas to meet their objectives and share them as a way of contributing to global health issues.

It was encouraging learning that most participants could afford to meet their expenses to the forum; a sign that there is tremendous growth in EPN members. There were more members outside Africa (Moldova, India, etc.) compared to the first forum. This shows a network that is expanding and appreciated beyond Africa.

Dr. Jane Masiga  
Head of Operations - Mission for Essential Drugs & Supplies (MEDS)
5. From the Outgoing Chairman

This Forum was a very successful one and trust me I have seen many of them! This is mainly because of the theme of the forum which focused on AMR and NCDs that are global challenges to Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs).

It should not be left to experts in Geneva or in the Ministries of Health of different countries, to take action. Each single EPN member has to start now and carry out effective activities that are geared towards saving antibiotics.

Without antibiotics, simple treatments would become very expensive and our target population, the people living in poverty, would be much more excluded from basic health care systems than they are today.

A good example was presented from the Ministry of Health Ghana which has developed a strategy on AMR stewardship which includes Governmental, Private and Christian Health Facilities and practitioners. For me, the key is, networking, working together, joining hands, sharing experiences and tools – it is only in doing so that we will be able to reach our targets.

The key message that I got is that we all need to focus on access to the generic NCD medicines. Treatment is usually very long therefore each cent that can be saved will increase their affordability. These medicines are accessible and often affordable but they are not yet available in many health facilities. That is because EPN’s Drug Supply Organizations – (DSOs) are still not offering all of these key NCD products but also the knowledge and diagnostic kits/equipment are still lacking in many health facilities.

EPN has to focus on working with DSOs in this area. How can the price of Insulin be reduced further so that the monopoly of the two main manufactures can be broken? How can those effective, WHO-recommended inhalors against respiratory disorders be made available? I feel that this EPN Forum was well-balanced.

*Albert Petersen*

*Former Board Chairman - EPN*
Introduction
6. Introduction

The EPN Forum is an event that brings together members every 2- years providing a platform for discussions, sharing of experiences and best practices culminating into a business meeting. The EPN Forum began in 2006 and takes place biannually.

The 2016 EPN Forum took place in Tübingen (Germany) from 18th to 20th May 2017. The theme was “Antimicrobial Resistance (AMR) and Non-Communicable Diseases (NCDs) - Pharmaceutical Challenges in the 2030 Agenda’

The forum was generously hosted by German Institute for Medical Mission - DIFAEM, a member and partner of EPN.

The following were the objectives of the Forum:

- Raise awareness and understanding of AMR and NCDs as part of the global 2030 agenda with an emphasis on the pharmaceutical sector
- Create an understanding of the importance of strong supply systems for chronic disease or any aspect of the health system
- Provide an opportunity to share best practices in relation to AMR Stewardship, NCD drug management among EPN members and other organizations.
- Foster networking among EPN members and other organizations to strengthen partnership
- Call to Action declaration

Each session started with a sharing of devotion to Scripture and songs praise.

6.1 The Topics

- Responding to the threat of AMR & NCDs in the post Millennium Development Goals era;
- Responding to the threat of AMR & NCDs during the transition to the SDG era;
- Tackling AMR in Church Health Institutions and promoting access to quality NCD medicines;
- Medicines for AMR and NCD current situation and challenges for the future;
- The role of pharmaceutical staff in CHIs to combat AMR and the NCD challenge.
7. Pre-conference

Family Planning - Facts, Faith and Supply Chain Strengthening

The CAFPA Project (Christian Advocacy for Family Planning in Africa) is a project that EPN is currently implementing in Nigeria in partnership with the Evangelical Church Winning All – (ECWA). It is supported by the Bill and Melinda Gates Foundation, with the goal of improving the policy and funding environment for family planning through faith-based organizations.

A pre-conference was one of the activities under this project, Miss. Mona Bormet and Dr. Douglas Huber from the Christian Connections for International Health – (CCIH) and Dr. Lloyd Matowe Pharmaceutical Systems Africa – (PSA) to empower members with advocacy skills that will translate to an increased access to family planning commodities and services.

Over 20 EPN members in attendance were taken through 3 topics:

Advance Family planning – (AFP) SMART Portfolio: elaborates the path that advocacy for Family planning policies and funding follows including the final stage where advocates make group, personal or organizational commitments towards increasing access to family planning. Family Planning Methods and Commodity Security: Dr. Huber helped members list the various family planning methods available and describe how they work. The Standard Days Method of Family Planning was demonstrated and taught using cycle beads. This made explanations more practical than just theory.

Supply Chain. Dr. Matowe illustrated how to assess the supply chain system through simple tools provided and how to further make improvements to their system ensuring sustainable uninterrupted supply of commodities.

Participants discussed in plenary why family planning is important from a technical and faith perspective.

Advocacy is about the conviction that things should not remain as they are and that we have the power to influence others in making positive changes. This workshop brought to light various successes and bottlenecks in accessing family planning - (FP).

Controversial questions about FP and religion came up especially about how some methods work and whether they interfere with the embryo. they interfere with an Most Christians believe that life begins when fertilization occurs, so many Christians would consider the IUD an unacceptable method of birth control as it poses a risk to pre-born life, i.e. the potential to cause a very early abortion. This being a sensitive issue it was agreeable that family planning practice appreciates the many beliefs in different cultural and religious settings. With various methods available everyone has the freedom to choose how they wish to delay, time and space their pregnancies.

In conclusion each participant developed an action plan to be achieved in the short term. Some committed to act under their current organizational positions while others made personal commitments within their local settings such as schools, churches and the communities at large. CCIH and EPN took contacts from each participant and promised to follow up on their commitments.

Douglas Huber (CCIH) making a presentation during the Pre-Conference on Family Planning.
The Forum participants pose for a group photo

A plenary session during the Pre-Conference on Family Planning
8. Sidebar Meeting on Pharmaceutical Training and Education

The Pharmaceutical Training and Education sidebar meeting brought together DSOs, Christian Health Associations – (CHAs), academic institutions offering pharmaceutical training and EPN Secretariat to a round-table discussion on pharmaceutical training in EPN member institutions, the approach, gaps, needs, synergies and future strategies. From academic institutions we had the Boston University, University of Tubingen and the Swiss Tropical Institute. This meeting was chaired by Albert and Prof. Heide Lutz. A lot of ideas where shared, which Albert and Prof. Lutz committed to follow up in 2016. EPN shared its Essentials of Pharmacy Practice Training book developed by EPN and the Ecumenical Scholarship Program supported by Bread for the World.

Some of the examples of training offered by members were:

- Training courses for Pharmaceutical Assistants and –Technicians:
  - Saint Luke Foundation/ Kilimanjaro School of Pharmacy (SLF/KSP) Catholic University Iringa and the Cameroon Baptist Convention (CBC)
- Offering trainings for staff in health facilities:
  - Christian Health Association of Zambia - (CHAZ), Joint Medical Stores - (JMS), Mission for Essential Drugs and Supplies - MEDS
- Members involved in pharmaceutical education included:
  - Dr Karin Wiedemayer, Prof Lutz Heide, Prof Richard Lang,
- action medeor Germany (AMG) reported running a broad project on capacity building of tertiary pharmacy training schools in Tanzania.
- MEDS reported on the various supply chain courses they offer and QC trainings.

In a very passionate statement Professor Richard Laing asked all the partners to make their great projects and trainings more public, because the only way to learn about them is through the EPN Forum.

9. The Media

Five different representatives from print media and the regional Television company attended and interviewed Mirfin Mpundu, Albert Petersen, Ndilta Osee, Richard Neci, Lutz Heide and Gisela Schneider on the work of FBOs and the Forum’s theme. Three print media published an article afterwards. The regional TV also reported about EPN and the Forum in a 10 minute broadcast.
Dr. Lloyd Matowe, Programme Director at PSA

Mr. Albert Petersen receives a gift from DRC

The spirit of networking at break sessions
Antimicrobial Resistance and Non-communicable Diseases - Pharmaceutical Challenges in the 2030 agenda

Albert Peterson receives gift from MEDS team

Participants commit to the call to action against AMR
10. Antimicrobial Resistance

10.1 The Problem of Antimicrobial Resistance - AMR: Epidemiology, Impact and Cost for Health System

Dr. Anna Zorzet - Head of ReAct Europe

Antibiotic resistance is the ability of bacteria to protect themselves against the effects of an antibiotic. Action against Antibiotic Resistance (ReAct) is a network dedicated to the problem of Antibiotic Resistance. It was founded more than 10 years ago and it is now present on five continents, EPN coordinates the African node.

ReAct addresses antibiotic resistance through a holistic perspective, taking an integrated approach where the human sector, the animal sector as well as environmental sectors intersect. It also works on regional and global policy matters concerning antibiotic resistance. ReAct has a strong reputation for being unbiased, and scientifically credible. It is an independent network and it does not accept funding from the pharmaceutical industry.

Antibiotics are the fundamental cornerstones of almost all modern health care in all health systems because they can save millions of lives. Many of the advances of human medicine are only possible at acceptable risk thanks to the preventive and prophylactic use of antibiotics before, during or after surgery and other medical procedures.

Without effective antibiotics the pyramid of effective antibiotics starts to crumble. This problem exists across the world: from north to south, from east to west, from rich to poor. This is worrying because these are drugs of last resort. The technological progress is slow and difficult (and very few scientists have the know-how). Thus, we cannot solve or fix AMR, at best we can mitigate it. AMR primarily manifests itself as a health problem but is perpetuated by a systems failure.

We urgently need a global action but “the challenge is complicated by the fact that antibiotic-resistant bacteria do not respect borders, so there are limits on what can be done. Strong international and multi-stakeholder collaboration is needed to address AMR through concerted efforts.” - (Global Risks Report 2013, World Economic Forum). Studies show worrying levels of AMR in African countries. Loss of first line drugs increases drug costs. AMR contributes to increased costs of treatment of infectious diseases such as malaria, TB and HIV.

The suboptimal use of antibiotic costs $55 billion/year = 0.9% of global total health expenditure1. We can fix the leaking system but all sectors need to be involved and do their part. What can you do? What is needed in your sector to improve the situation? What can be done within church health systems? Here are some suggestions.

- Develop /update and implement standard treatment guidelines;
- Provide lists for preferred treatment for common diseases;
- Offer expert advice to guide providers;
- Introduce rational antibiotic use programs;
- Dedicate teams that are specifically leading the process;
- Educate health workers and patients;
- Supervise and give feedback.

Members can access ReAct resources on the ReAct Toolbox link on ReActs website: www.reactgroup.org

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1 Source: IMS Report Ministerial meeting Amsterdam, 2012
10.2 Containing Antimicrobial Resistance to Realize the Goals of Universal Health Coverage

Dr. Mohan Joshi - Principal Technical Advisor and Cluster Lead for Pharmaceutical Services from Management Sciences for Health, Systems for Improved Access to Pharmaceuticals and Services (MSH-SIAPS)

Quoting the Director-General of the World Health Organization (WHO), Dr Margaret Chan, “Antimicrobial resistance is a crisis that must be managed with the utmost urgency. As the world enters the ambitious new era of sustainable development, we cannot allow hard-won gains for health to be eroded by the failure of our mainstay medicines. She also said: “I regard universal health coverage as the single most powerful concept that public health has to offer.”

The goal of Universal Health Coverage (UHC) is to ensure that all people obtain health services they need [ACCESS] without suffering financial hardship when paying for them [AFFORDABILITY]. The full spectrum of essential, quality health services should be covered including health promotion, prevention and treatment, rehabilitation and palliative care.

The Sustainable Development Goal (SDG) 3 on Communicable Diseases and UHC was defined as: “By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases”.

Achieving universal health coverage, including financial risk protection requires access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

To realize the Goals of UHC we need to contain AMR in the following ways.

- Improving ACCESS to antimicrobials, vaccines and diagnostics
- OPTIMIZING SELECTION and USE of antimicrobials through UHC medicines benefit schemes
- Improving AFFORDABILITY to antimicrobials through financing mechanisms and by reducing inefficiency/waste
- Improving SAFETY and QUALITY through infection control and continual improvement programs

In conclusion, achieving the goals of UHC in a sustainable manner will depend on our ability to preserve the effectiveness of antimicrobials and contain AMR. UHC stakeholders thus need to bring AMR issues to the forefront. As a starting point, countries need to develop their national action plan on AMR (aligned with the WHO Global Action Plan) and integrate it within the framework of a quality UHC program.

10.3 Antibiotic Use in the Community Challenges and needed response

Dr. Sujith Chandy – Professor at the Pushpagiri Institute of Medical Sciences, Tiruvalla, India

Antibiotic resistance is a rising problem in the world. Inappropriate use of antibiotics is one of the main contributors to this problem. One of the main strategies to contain this problem is antibiotic stewardship – (AS). To develop appropriate, sustainable & feasible stewardship an evidence base is needed in local context as to what are the challenges.

In Vellore district in Tamil Nadu state, south India, the following are some of the challenges.

Antibiotic use surveillance – Findings showed 21,600 antibiotic encounters among 52,788 patients translating to an overall antibiotic use of 41%.
The patterns of antibiotic use revealed Fluoroquinolones and penicillins are widely used, Cotrimoxazole are mostly used in rural hospitals while Cephalosporins in urban private hospitals. Antibiotics for respiratory infection symptoms account for 41% of all antibiotics used.

Antibiotic practice & misuse – Among the top10 antibiotics in govt & private facilities Cotrimoxazole was used in more than half of the instances as compared to only 4 % in private facilities.

Qualitative study on antibiotic use perception – Doctors perceived lack of diagnostic support, patient expectations and patients pressure for quick relief as key drivers for how antibiotics are used.

Pharmacists stated limited insight into consequences of resistance, business concerns /sales volumes and patient demand as determinants of antibiotic use. The general public also has little knowledge about infections, antibiotics & resistance and visit pharmacy shop for quick relief which may lead to self medication.

Cost burden & health consequences - Comparison of direct costs of treatment between ‘Resistant’ and ‘Susceptible’ groups shows a clear that resistance is way costlier.

Policy guidelines - Containment of rising overall antibiotic use was possible during periods of active guideline dissemination. Wider access through intranet facilitated significant decline in use. Stakeholders and policy makers are urged to develop guidelines, ensure active dissemination and enable accessibility through computer networks to contain antibiotic use and decrease antibiotic pressure.

Borrowing from Charles Darwin “It is not the strongest of species that survive, nor the most intelligent, but the ones most responsive to changes” (1809-1882).

There is need for a cohesive approach in order limit the emergence of antimicrobial resistance in surgical infections. Successful Antimicrobial stewardship programs – (ASPs) should focus on collaboration between all healthcare professionals in order to gain the wider-possible acceptance, share knowledge and spread best clinical practices.

This calls for an engagement of;
- Policy makers – national policies
- Regulators – punitive and control measure
- Hospital managers/leadership – local policies
- Health professionals – doctors, nurses, pharmacists for knowledge, practice, communication
- Media/NGO/FBO/other organizations – advocacy, awareness, practice
- Patients & Public – awareness, practice

Widespread reliance Out-of-pocket spending (OOPS) is contrary to Universal Coverage objectives for a number of reason; it compromises equity of access; service use depends on ability to pay rather than medical need; health care costs pose risk of impoverishment (“your money or your life”) and when payment is informal, there are problems of transparency which makes it difficult to organize incentives for providers.

According to world Health Report 2010, Chapter 4, three out of ten leading sources of inefficiency in health systems are on medicines. This gives us a reason to worry because 20 % and 60 % of the health expenditures in LMIC goes to medicines with up to 80 to 90 % of medicines being purchased out-of-pocket as opposed to being paid for by health insurance schemes.

The WHO Resolution on a global action plan against antimicrobial resistance gives us hope for the future. In May 2015, Member States signed a resolution for a global action plan (GAP) against antimicrobial resistance. Member States are supposed to develop a national action plan (NAP) against antimicrobial resistance before May 2017. WHO and other partners like ReAct have been supporting Member States for the development and implementation of the NAP.

In view of the various complexities involved in antimicrobial resistance WHO commits to a number of activities for the year 2016 – 2017; Monitoring of antimicrobial use; Update of the chapter on antibiotics of the Essential Medicines List; Development and dissemination of best practices policies for use; Quality and regulation.
WHO also works in close collaboration with the Food and Agriculture Organization (FAO) and the World Organization for Animal Health (OIE) to promote cross-sectoral collaboration to address risks from zoonoses and other public health threats existing and emerging at the human-animal-ecosystems interface, and provide guidance on how to reduce these risks.

10.5 Managing Successful AMR Stewardship Programme

*Presented by Brian Mr Brian Adu Asare, Programme Officer, National Drugs Programme, Ministry of Health Ghana on behalf of Martha Gyansa-Lutterodt - Director Pharmaceutical Services, Ministry of Health Ghana*

Ghana has introduced an AMR stewardship programme in order to improve awareness and understanding of AMR through effective communication, education and training. It also wants to strengthen knowledge and evidence based on surveillance and research. Moreover, it should reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures.

Key objectives of a successful AMR stewardship programme are to optimize the use of antimicrobial agents in humans and animal health in the ‘one health’ approach. It is necessary for the process of developing the economic case for sustainable investment that takes account of the needs of all countries and increase investment in new medicines, diagnostic tools, vaccines and other interventions.

Harmonized systems give opportunity for convergence of efforts in building AMR stewardship programme (especially in resource constrained settings) Drugs and Therapeutic committees have a role to play at the church health facility level in support of AMR stewardship programs while the multi-stakeholder process and Leadership becomes the pivot for all actions in all sectors where timely stakeholder engagements is a crucial step in building AMR stewardship programme.

10.6 Access Vs. Excess in the Context of Optimization of Antimicrobial Agents

*Mr. Marlon Banda - CHAZ, Zambia*

It all started with Alexander Fleming who discovered the first antibiotic, penicillin. Antibiotics continue to save lives every day by enabling us to control infections. Critical situations that often require anti-infective substances are neonatal care, transplantation, chemotherapy for malignancy, immunosuppression, safe surgery, safe obstetric care, and intensive care interventions.

The hindering factors to access are still comparable to decades ago like economic inequity, facility stock outs, and lack of qualified pharmaceutical personnel. Excess of antibiotics is best reflected by inappropriate use which leads to antibiotic resistance. There are clear correlations between the amounts of antibiotics used on an overall nation level and the extent of resistance.

This has been shown also for single substances like vancomycin. The increased use can be a result of prescriptions taken incorrectly, sale of antibiotics without medical supervision, misuse before surgery, antibiotics used for viral infection, spread of resistant microbes in hospitals due to lack of hygiene, patients who do not complete courses, antibiotics in animal feeds etc.

The excess vs. access dilemma is motivated by various factors among prescribers and users which are largely based on perception rather than facts. Specific diagnosis of infectious cause cannot be made with precision during a brief encounter. Also patients value and expect a prescription to signal the end of a visit. Some prescribers out of fear, find it better to give an antibiotic that is not needed than withhold one from a patient who could benefit. Failure to prescribe risks patient well-being and accusations of negligence.
10.7 Information, Data and Role of Surveillance in Addressing AMR  
*Dr. Mirfin Mpundu - Executive Director, EPN*

The AMR Global Action Plan comprises five strategic areas: increasing awareness and understanding of AMR, strengthen knowledge through surveillance and research, reducing the incidence of infections, optimizing the use of antimicrobial agents/medicines and ensure sustainable investment.

Surveillance is the systematic collection, consolidation and evaluation of relevant data in order to determine the trends of incidence, abundance, diversity and distribution of antibiotic resistant bacteria and antimicrobial resistant genes.

The data should be shared with decision makers. Also the looping of this information back to prescribers is important. In surveillance we are tracking antibiotic use, the emergence and spread of resistant pathogens which provides information, insights and tools needed to guide policy and to evaluate measures taken for appropriate use.

**Levels of Surveillance**
- At the patient level, to guide empiric therapy, increase patient safety and rational antibiotic use;
- At the population level, to estimate the size of the resistance problem and to identify gaps in discovery and development of novel antibiotics;
- At pathogen level, to detect and explain the reservoirs and origins and spread of merging antimicrobial resistance.

Sources of data are from the monitoring of antimicrobial use, a review of patient logs and patient charts. The database is a kind of electronic drug register for patients and the key to surveillance is to collect minimum dataset that is necessary. The primary data is usually collected from the laboratory and it includes organism name, susceptibility results, patient age and sex, the date of admission to hospital location of available e.g. Intensive Care Unit (ICU) or surgical unit.

10.8 Minilab -A Tool to Combat AMR  
*Dr. Nyaah Fidelis - Pharmacist, PCC Health Services Cameroon*

A Minilab is a simple, low tech and less expensive method for first quality screening of medicines. The quality of Antimicrobials used in both humans and in animal is a factor mostly neglected when looking at the drivers of AMR. With the minilab in DSOs, the contribution of poor quality antimicrobial agent to AMR can be reduced. A Minilab is affordable compared to setting up a standard QC laboratory; it is Comparable to more stringent methods in a standard laboratory; it is easy to use with little time and investment in training; it is mobile and suitable to be adapted even in remote areas and results are reliable and rapid to get in order to make rapid judgment about medicines quality.

Global incidences of falsified/counterfeit medicines show a breakdown data of 325 cases substandard drugs, including antibiotics from the (WHO database).

In pharmaceutical terms an antimicrobial that fails to disintegrate implies poor dissolution and poor availability for absorption, consequently this affects the bioavailability levels required to act on bacteria. Eventually this trains the bacteria to be resistant and develop resistant strains.

**EPN Minilab Network DSOs**
The EPN Minilab DSOs are responsible for procuring and distributing medical commodities (including antimicrobials) to FBOs hospitals. With a minilab, DSOs have been able to:
- Detect fake antibiotics
- Prevent their circulation
- Ensure that FBO health facilities do not get to use them
An efficient supply chain ensures access to a constant supply of high-quality, efficacious medicines and related health products, including antimicrobials. It controls the wastage of medicines and related health products, improves coordination of and synergy among the various stakeholders involved in the medicines management supply chain.

An effective supply chain requires 2 elements among others:

- A limited list of antimicrobials may lead to better supply, more knowledge and experience among users, appropriate use, and lower costs (since antimicrobials are relatively expensive medicines). A limited list also enables an easier training for health workers;
- Good Procurement Practice which is characterized by flexibility of the procurement system and coordination for timely procurement of drugs.

In a real situation there is a lack of procurement expertise, a complexity of multi-source funded procurements and a lack of funding for Essential Drugs Programs including antimicrobial agents. This translates into less rigor and accuracy as compared to donor funded programs where more visibility is often demanded. Exceptions occur with antimicrobials that are categorized in the ‘opportunistic infections’ bracket for HIV/and AIDS programs, and those for malaria and tuberculosis.

### 10.10 Feedback from Members

**Dr Simon Aroga - OSEELC Director, Cameroon**

Dear friends,

Greetings from Cameroon and thank you for your mail. It was also a great pleasure for me to be with you at the EPN Forum in Tubingen and work together on the family planning issues, the problem of antimicrobial resistance, non-communicable diseases etc.

As soon as I came back to Cameroon, I made the report on the resolutions taken at this Forum not only to the staff, but also to church leaders. All the church leaders had decided to talk about the importance of family planning during women’s and youth meetings and we will now follow the implementation of this resolution. With the medical and pharmaceutical staff, we have already conducted several meetings and exchanges and began to put in place measures to avoid the continuation of antimicrobial resistance and the prevention of non-communicable diseases in our hospitals.

Last week, we took part in a seminar on family planning in Mutengene in the South west of Cameroon where many FBOs were present and we shared together many experiences. I would like to thank EPN for this great opportunity that was offered to me to attend this 6th Forum and wish success to the new leadership and all the members of this organization.

**Dr. Bildard Baguma - Executive Director at Joint Medical Stores, Uganda**

The take home message is that I can use very simple data that I never thought of to show the impact of various interventions. And these are the pharmacy consumption data. I have always relied on lab data but today I learned that pharmacy data is even more reliable to show appropriate or inappropriate use of antibiotics. We can now look retrospectively at the trends of how we have been using antibiotics and look at the patterns and areas that require immediate intervention. For me it is the simplest thing to do, but very profound in terms of the information we are going to uncover.

**Richard Laing – Professor at Boston University, School of Public Health, USA**

I will try to seek out opportunities to encourage faith based drug supply organizations like MEDS and JMS, to put their consumption data in the public domain so that people can look at the changing path of antibiotic use in East Africa.
10.11 Four Recommended Actions on AMR

The specially designated Forum day on antimicrobial resistance ended with a Call to Action. A similar call to action was made in 2009 during the World Health Assembly in Geneva. This was followed by lots of different actions EPN members took away to their countries guided by the EPN Secretariat.

The four recommended actions are as follows:

1. Building advocacy, awareness and political will to combat antimicrobial resistance;
2. Strengthening capacity of health systems to effectively address antimicrobial resistance;
3. Ensure effective coordination between stakeholders;
4. Strengthening monitoring and surveillance systems for antimicrobial resistance.

Let’s join in this Call to Action against Antibiotic Resistance and remember:

“You may never know what results will come from your action. But if you do nothing, there will be no result.” - Mahatma Gandhi
10.12 Call to Action- Combat Antimicrobial Resistance & Preserve Antimicrobials for Future Generations

The Need to Act Now

Antimicrobial resistance (AMR) may jeopardize progress against current global health threats, bring a re-surgence of past diseases, hinder medical advances such as organ transplantation, reduce effectiveness of treatment, increase overall health care costs and strains health systems. 700,000 deaths attributed to AMR each year could rise to 10 million by 2050 if coordinated action is not taken.

Inappropriate use of antimicrobials is a major driver of AMR and results from complex deficiencies across the health system including lack of legislation and regulation, inefficient supply chain management, few quality assurance mechanisms, inappropriate prescribing and dispensing practices and lack of adherence and other patient behaviors.

Being a threat in every region, it is critical that every country, be concerned with and proactively take steps against AMR, towards a concerted, coordinated global action.

Our Call to Action

The Ecumenical Pharmaceutical Network (EPN), a faith-based organization, with 105 members from over 30 countries, supports churches & church health systems to provide just, compassionate, and quality pharmaceutical services and believes that access to safe & effective medicines of assured quality is a human right.

Our biannual forum, held from 19 to 20 May 2016, in Tubingen Germany, intensified our focus on AMR and infectious diseases, and brought together stakeholders to share ideas, knowledge & best practices, and chart an effective course of action to address the global challenge of AMR.

In this context, we, the participants of EPN’s Forum 2016 renew our call for immediate action to mitigate the threat that AMR poses for every country.

Our four recommended actions build upon our 2011 call for action and also draw from World Health Organization’s 2015 Global Action Plan on AMR:

- Building Advocacy, Awareness and political will to combat AMR;
- Strengthening capacity of Health Systems to effectively address AMR;
- Ensure effective coordination between stakeholders;
- Strengthening monitoring and surveillance systems for AMR.

We recommend targeted areas of action for the following key groups:

- government and policymakers;
- health care institutions (both public and private);
- health schools, training institutions, and professional associations;
- health care providers and community health workers.

Strengthening our Resolve

The participants of this Forum resolve to promote, advocate, and implement these actions against AMR in alignment with EPN’s Strategic Plan and actions plan from WHO. EPN remains deeply committed to the fight against AMR so that we can preserve antimicrobials for future generations.
Non-Communicable Diseases
11. Non-Communicable diseases

11.1 Non Communicable Diseases - Understanding the Silent Epidemic in Light of the Agenda 2030

Dr. Gisela Schneider - Director of Difaem, Tübingen, Germany.

Non-communicable diseases (NCDs), also known as chronic diseases are NOT passed from person to person. They are characterized by long duration and slow progression.

Under the Sustainable Development Goal 3, the NCD’s target is to reduce, by one third, premature mortality from non-communicable diseases through prevention and treatment and promotion of mental health and well being by 2030. The indicators to measure progress in NCD prevention are 25% reduction in the mortality of all NCDs; 10% reduction in harmful alcohol consumption; 10% reduction in inactivity; 30% reduction in salt intake; 30% of tobacco reduction; 25% reduction in the prevalence of raised blood Pressure (BP). Halt the rise of diabetes and obesity; at least 50% of eligible people receiving medicines to prevent stroke and heart attack and 80% availability of basic technology and medicines to manage NCDs.

To achieve these we must adopt a multi-sectoral approach of addressing the social determinants of health and addressing risk factors such as tobacco smoking, nutrition, physical inactivity and harmful use of alcohol.

11.2 Access to Medicines - Overcoming the Barriers

Prof. Richard Laing - Boston University, USA.

The global burden of disease is shifting from acute to chronic. Existing health systems will have to change to accommodate new demands for NCD care, particularly in the public sector. Task shifting lessons can be borrowed from the successes of HIV/AIDS and tuberculosis (TB) treatment programs. The historic focus on infectious diseases has caused a consistently lower availability for NCD medicines than acute medicines in LMICs. There is therefore need to put in place strategies that will ensure access to NCD medicines e.g. generic prescribing.

11.3 Priority NCDs and Challenges in Church Health Institutions

Dr. Ndilta Djekadoum Osee - MD, MPH of Hôpital Evangelique de Koyom, Chad

The most common NCDs in Chad are cardiovascular diseases, diabetes and cancers. Poor diet is the main risk factor for these NCDs.

Limited access to medications, diagnostic equipment and inadequate skilled workers are challenges in treating NCDs. When people do have short-term access to medications, adherence to the drug regimen is a challenge. According to Dr. Osee, people often take medications for a chronic condition for two to three weeks and then think they are cured. Affordability of medicines is also a major problem due to the high cost of medicines.

As the rate of diabetes increases, many people are not even aware they have the condition until they come to the hospital due to complications. Dr. Osee shared that people may be put on insulin but have trouble staying on their regimen because they do not have access to refrigeration.

Cancers are often diagnosed in late stages when medicines that can be used to treat early-stage cancers are not effective. Lack of diagnostic laboratories in rural and developing areas add to the challenge of detecting and treating cancers. The Hôpital Evangelique de Koyom in Chad began a partnership with the U.S. Christian Broadcasting Network to help fund doctors to travel into the country to perform surgeries to treat facial deformities resulting from cancers as one way to address the effects of the disease. With all NCDs, it is especially important in rural areas to diagnose the disease as early as possible and focus on prevention.
11.4 How to retain sustainable medicine supplies: the example of DSO

*Mr. Paschal Manyuru - Managing Director, Mission for Essential Drugs and Supplies (MEDS), Kenya*

Mission for Essential Drugs and Supplies (MEDS) currently provides a reliable supply of essential medicines and medical supplies of good quality at affordable prices to over 1,800 public and private health facilities in Kenya and the region.

In response to the challenges caused by substandard and counterfeit medicines and medical supplies, MEDS has established an elaborate quality assurance system that ensures the procurement and supply of safe, effective and good quality medicines and medical supplies.

MEDS’ State of the art Warehouse to ensure quality of stock and efficiency in clients’ orders processing. MEDS has a quality Management System (QMS) which is ISO 9001:2008 certified. In 2013, it was pre-qualified by the USAID Office of U.S. Foreign Disaster Assistance - (OFDA) to supply their program partners. They also determine compliance with current Good Manufacturing Practices (cGMP) and current Good Distribution Practices (cGDP).

11.5 Access Programs by Industry

*Dr. Harald Nusser- Head, Novartis Social Business*

Dr. Nusser gave a presentation on the Novartis Access Program. This is a novel program to fight chronic diseases in lower-income countries. It offers a portfolio of 15 on- and off-patent medicines addressing key NCDs: cardiovascular diseases, type 2 diabetes, respiratory illnesses and breast cancer. The Access portfolio is offered as a basket to governments, NGOs and other institutional customers in lower-income countries at a price of USD 1 per treatment per month. Depending on public subsidy levels, patients in participating countries may either receive Novartis Access medicines free of charge or purchase them at a low price to manage their chronic condition long-term. For those who need to purchase their treatments, Novartis is working with its partners to minimize markups.

Beyond the portfolio, Novartis Access offers capacity building activities to support healthcare systems in preventing; diagnosing and treating NCDs. It strives to roll out the program in 30 countries in the coming years – depending on governmental and stakeholder demand.

WHO report indicates that an estimated 28 Million deaths occur every year in low middle income countries (LMICs) with nearly 75% of global NCD deaths. Notably, 82% of NCD deaths are caused by Cardiovascular, Cancers, Respiratory and Diabetes while 60% of the global disease burden will be due to NCDs by 2020.
12. Annexes
12.1 Poster Presentations from EPN members

Madam Irene Yonkeu from Cameroon declaring her commitment to family planning as a Christian
Dr. Susan from Gertrude’s Children’s Hospital – Kenya displays a poster to Nathan Mekaneh from Cameroon. Gertrude’s partnered with EPN and MSH to strengthen the Antimicrobial Stewardship program at the hospital.

Dr. Andreas and Iona Silly. MEDBOX is a medical library resource professional guidelines, textbooks and practical documents on health action available online today and brings these into the hands of humanitarian aid workers: when they need it, where they need it.
13. References

WHO: http://www.who.int/universal_health_coverage/en/

WHO: http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf


UN: http://www.un.org/sustainabledevelopment/health/


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Ecumenical Pharmaceutical Network (EPN)

The Ecumenical Pharmaceutical Network (EPN) is a Christian, not for profit, independent organization based in Nairobi, Kenya. We are committed to the provision of quality pharmaceutical services as a means to achieve global goals and targets on health and access to medicines. We are a Network with members from all over the world. The Network is run by our professional team at the secretariat in Nairobi and is overseen by a board of experts in our field of work.

Our Vision

A valued global partner for just and compassionate quality pharmaceutical services for all.

Our Mission

To support churches and church health systems provide and promote just and compassionate quality pharmaceutical services.