Antimicrobial Resistance Country-Level Advocacy and Containment Pilot in Zambia follow-up visit, July 2006: Trip Report

Wonder Goredema

September 2006

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Strategic Objective 5

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Abstract

Wonder Goredema traveled to Lusaka on July 10-19, 2006 to meet and coordinate with members of the advocacy working group and other in-country partners to review progress and initiate next steps for implementation of interventions for containment of AMR in Zambia. He met with officials from the AWG, Ministry of Health and the University of Zambia. He also participated in an AWG meeting and participated and provided technical assistance in a meeting to disseminate the results of the recently completed curriculum reviews for pre- and post-service training of medical, nursing and pharmacy professionals and map out next steps. He also disseminated the RPM Plus infection control assessment tools to the Infection Prevention Working Group.

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Key Words

Antimicrobial resistance, Advocacy Working Group, curriculum review, standard treatment guidelines, Zambia National Formulary Committee, infection control assessment tool.

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ACRONYMS

AIDS	acquired immunodeficiency syndrome
AMR	antimicrobial resistance
APUA	Alliance for the Prudent Use of Antibiotics
AWG	AMR Advocacy Working Group
Global Fund	the Global Fund to fight AIDS, TB and Malaria
HIV	human immunodeficiency virus
HOD	head of department
ICAT	infection control assessment tool
ID	infectious disease
IP	infection prevention
IPC	infection prevention and control
IPWG	Infection Prevention Working Group
MOH	Ministry of Health
MSH	Management Sciences for Health
NGO	non-governmental organization
PCP	pneumocystis carinii pneumonia
PEPFAR	President's Emergency Plan for HIV/AIDS Relief
RPM Plus	Rational Pharmaceutical Management Plus
STG	Standard Treatment Guideline
TB	tuberculosis
UNZA	University of Zambia
USAID	United States Agency for International Development
UTH	University Teaching Hospital
WHO	World Health Organization
ZNFC	Zambia National Formulary Committee

BACKGROUND

Antimicrobial resistance (AMR) is a major global problem that is associated with increased morbidity and mortality from infections that are resistant to common first line treatments. The U.S. Agency for International Development (USAID) has supported the Rational Pharmaceutical Management Plus (RPM Plus) Program of Management Sciences for Health (MSH) and other partners, to develop and pilot a country-level approach for advocacy and containment of AMR in Zambia. The approach involved forming a multidisciplinary AMR Advocacy Working Group (AWG)[1] to advance AMR advocacy and guide and support local stakeholders in developing and implementing appropriate interventions to address the problem. To date the AWG has accomplished the following:-

- Conducted a rapid review of issues and players that impact AMR in Zambia[2]
- Conducted a rapid appraisal of media presence and communication channels in Zambia[2]
- Held a stakeholders' 'Call-to-Action' meeting attended by 70 stakeholders[3]
- Supported communication workshops to advance advocacy and develop communication materials promoting drug resistance[4]
- Supported an interim rapid appraisal conducted in December 2005 to review program achievements & identify effective future advocacy strategies[5]
- Held a workshop with physicians in June 2005 to develop recommendations for revising & implementing standard treatment guidelines (STGs) for major infectious diseases[6]. These findings were to be shared later with the Zambia National Formulary Council (ZNFC).
- Collaborates with the Ministry of Health (MOH) and other stakeholders such as the Alliance for the Prudent Use of Antibiotics (APUA) country chapter.

In February-March 2006 a similar activity was initiated in Ethiopia. The experiences and lessons learnt in Zambia and Ethiopia will form the basis of a generic model outlined in the Workbook for Building Local Support for Containing Drug Resistance. This guide will be made available for adaptation and implementation by other countries.

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[1] Joshi, M., S. Zimicki, M. Sommer. 2003. *Initiation of Antimicrobial Resistance Country-Level Pilot in Zambia, March 2-13, 200: Trip Report.* Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

[2] Joshi, M., N. Pollock, M. Miralles. 2004. *Antimicrobial Resistance Country-Level Implementation Pilot in Zambia: Trip Report of a follow-up Visit in August 2004.* Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

[3] Joshi, M., N. Pollock, K. Garrison. 2004. *Antimicrobial Resistance Stakeholders' 'Call-for-Action' Meeting, Lusaka, November 12, 2004.* Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

[4] Soisson, D., L. Shafritz, *Zambia trip report: Message, advocacy and communication workshops, Lusaka, February 23–March 4, 2005.* Washington, D.C.: Academy for Educational Development

[5] Sanchez, M., D. Briones. 2006. *Antimicrobial Resistance Country-Level Implementation Pilot in Zambia: Rapid Appraisal of Advocacy Activities.* Submitted to the Rational Pharmaceutical Management Plus Program. Arlington, VA: Links Media.

[6] Joshi, M. 2005. *Workshop on Implementation of Standard Treatment Guidelines to Support Antimicrobial Resistance (AMR) Containment in Zambia: June 27–29, 2005.* Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

It is now time for the AWG to review progress and plan next steps for implementation of prioritized interventions in Zambia. This trip was undertaken to provide technical assistance to move the process forward.

Purpose of Trip

Wonder Goredema, Senior Program Associate for AMR, RPM Plus traveled to Lusaka, Zambia to meet and coordinate with members of the AWG and other in-country partners to review progress and initiate next steps for implementation of interventions for containment of AMR in Zambia

Scope of Work

The scope of work for Dr. Goredema included:

i. Finalize logistics and coordination of planned activities with Mr. Oliver Hazemba, RPM Plus Regional Technical Advisor.
ii. Meet and coordinate with the AWG to brief them of the visit, review overall AMR containment progress to date, plan and facilitate the meeting to disseminate the recently completed reviews of pre- and in-service training for medical, nursing and pharmacy professionals and map out next steps for implementing AMR interventions in Zambia (curriculum review, updating of the Zambian STGs and infection prevention and control).
iii. Meet with MOH officials to discuss next steps for in-service training and reviewing of STGs
iv. Meet with the ZNFC chairperson and secretariat to discuss progress regarding the revision of STGs.
v. Meet with relevant university officials to plan next steps for revising the undergraduate medical curriculum.
vi. Explore the opportunities of implementing the RPM Plus infection control assessment tool (ICAT) in Zambia.
vii. Debrief USAID officials, if requested.

ACTIVITIES

Meet with the AWG and local partners

Dr Goredema first met with RPM Plus Regional Technical Advisor, Mr. Oliver Hazemba, to finalize the logistics and coordination of activities planned under the scope of work. The plan was for Dr Goredema and Mr. Hazemba to first meet with the AWG members and other local partners Monday to Thursday, July 10-13 (annex1) and gather ideas that could be used at the curriculum review dissemination meeting on Friday to guide recommendations and map out next steps. Discussions were held with Professor Chintu, Chair of the AWG and Chair of the ZNFC; Mrs. Velepi Mtonga, Director of Technical Support Services at the MOH; Ms Caroline Yeta, Pharmacy Advisor to the Director of Clinical Care and Head of the ZNFC Secretariat at the MOH; Dr James Mwansa, member of the AWG, member of the Infection Prevention Working Group (IPWG), Head of the Microbiology Department at the University of Zambia (UNZA), Chair of the infection prevention (IP) group at the University Teaching Hospital (UTH), Chair of the APUA Zambia Chapter and Dr. Christopher Mazimba, Chief of Party –Medical Injection Safety Project at JHPIEGO and Head of the Secretariat to the IPWG. The partners were briefed on the purpose of the visit and asked to review progress of the Zambia AMR advocacy and containment effort and make recommendations on the best approach for the way forward.
Key points from the discussions include:-

- It was proposed at MOH that for sustainability, implementation of AMR interventions needs to be integrated into budgeted plans of the MOH, training institutions and other relevant stakeholders. The AWG needs to review achievements to date against original objectives and then embed implementation of activities into authoritative bodies, including the MOH, training institutions and other relevant stakeholders. As a next step, the AWG should develop a strategic plan (e.g. 5-year) for AMR containment to guide it to advocate, follow up and support the MOH and other implementing organizations. It was recommended that the AWG should officially write to the MOH and other implementing organizations to disseminate the curriculum review reports, any other relevant AMR-related data it may have and the strategic plan, and to recommend appropriate interventions as outlined in the strategic plan.
- In-service training will be coordinated by the MOH directorate of human resources, starting under the 2007 budget.
- The AWG needs funding to enable it to further follow up and support implementation of interventions by the AWG, MOH, training institutions and other relevant stakeholders.
- The STGs review process initiated in June 2005 has not moved forward for a whole year due to limited capacity at the ZNFC Secretariat and competing priorities and limited funding at the MOH. The current STGs (published in 2004) should be reviewed as soon as possible to be up to speed with modern medical trends. Concerns that need to be addressed include the use of World Health Organization (WHO) guidelines for the diagnosis of clinical malaria, plans to sell Coartem over the counter in Zambia, the use of WHO guidelines for using cotrimoxazole for prophylaxis of pneumocystis carinii pneumonia (PCP) without enough evidence on the development of resistance, addition of Ethambutol to tuberculosis (TB) management protocol, proposed changes to the first line treatment for HIV/AIDS and the lack of recommended second line treatment for HIV/AIDS.

- The ZNFC Secretariat requested the AWG to assist by coordinating and facilitating the review, finalization and dissemination of the STGs. The AWG is in turn requesting RPM Plus to collaborate and support the technical review, professional editing, publishing, printing and dissemination of the STGs. Integration of changes into the document and technical editing will be done in-house.
- The AWG is seeking RPM Plus support for the publication and dissemination of the previously developed print media materials promoting rational use of medicines.
- RPM Plus will coordinate with the IPWG and Dr James Mwansa to explore possibilities for implementing the ICAT in Zambia.

The team also participated in a meeting of the AWG.

AWG meeting (annex 2)

The meeting was held at the RPM Plus office on Wednesday, July 12 in the afternoon. It was chaired by Professor Chintu. Six members of the AWG attended. Dr. Goredema compiled and later submitted the minutes to the AWG secretariat. The objectives included:-

- To review progress of overall AMR containment activities to date
    - Discuss the planned AWG-supported meeting to disseminate curricula review reports, scheduled for Friday, July 14, 2006
    - Discuss progress regarding STGs review.
    - Discuss IP.
    - Discuss progress regarding dissemination of media briefs on reducing drug resistance
- Discuss ideas for next steps

Key issues and recommendations included:-

- There was concern that the AWG had not met for about one year
- There was concern that nothing had happened since the initiation of the STGs review process in June 2005. The meeting resolved to assist in organizing the ZNFC planning and technical review meetings by end of July 2006 and end of September 2006 respectively.
- The ICAT were introduced to the AWG members. The AWG requested that RPM Plus share the tools with the AWG, IPWG and UTH, so they can review and see if they are appropriate for Zambia.
- The AWG has no funding to publish and disseminate the previously produced print and radio materials
- A draft plan for next steps would be developed at the dissemination meeting on Friday, July 14. The AWG would then meet later to review the plan and further develop the draft into an AWG strategic proposal, to be used by the AWG to source funding for AMR containment activities and to be adapted into specific plans and implemented by relevant stakeholders.
- Successful implementation of pre- and in-service training and the review of STGs would capture both current and future prescribers.

On Monday, July 10 and Thursday, July 13 the team worked with the four consultants-Dr. Sekelani Banda, Ms Muriel Syacumpi, Mr. Haachile Moonga and Ms. Marjorie Kabinga-who conducted the pre- and in-service curriculum reviews, to prepare PowerPoint presentations of their reports. PowerPoints presentations were also prepared for the AWG chairman.

Attend and facilitate the curriculum review dissemination meeting

The curriculum review dissemination meeting (annex 3) took place at the Taj Pamodzi Hotel in Lusaka on Friday, July 14, from 9:30am-1pm. Twenty-six participants attended. They were doctors, pharmacists, nurses, laboratory and other professionals representing both the public and private health sectors and non-governmental organizations.

The objectives of the meeting were to:-

- Present reports of the reviews of pre-and in-service training of health care professionals in Zambia.
- Review the study recommendations and current issues and draft a plan for next steps.

Comments and observations:-

- Medical professionals are not adhering to basic hygiene standards, e.g. hand washing and gloving guidelines
- IP is a big problem in hospitals. Nurses are not observing best practices for hand washing and use of gloves. They generally use the same pair of gloves the whole day.
- The main problem is lack of resources to buy the gloves

Recommendations

- Encourage stakeholders to implement activities that need little or no additional funds (e.g. promoting basic hygiene standards like hand washing in hospitals). Institutions that train health professionals should spearhead this campaign.
- Incorporate the review of medicine, pharmacy and nursing training curricula into plans of relevant teaching institutions such as the UNZA and Chainama College of Health Sciences and take advantage of current funding under global initiatives, e.g. the global fund.
- Encourage lecturers who teach in health institutions to give as much information as possible on antimicrobial use and AMR to students and young doctors.
- Update the STGs to be up to speed with modern medical trends. The current Zambia STGs (published in 2004) should be reviewed.
- Encourage stakeholders to advocate and lobby to the government to improve basic facilities such as water and availability of key infection control resources (e.g. gloves) in health institutions.
- Encourage stakeholders to educate people about AMR and on how to reduce inappropriate use of antibiotics.

    - Develop and implement appropriate interventions to improve IP in hospitals, as poor IP has been highlighted as an area of concern.

- Prepare an AWG strategic plan for next steps and funding for support and monitoring of implementation of AMR activities by the AWG, MOH, teaching institutions and other partners.
- Identify stakeholders responsible for implementing specific AMR activities.
- Share information on antimicrobial use and AMR with all stakeholders, including the MOH and workshop participants.

Next Steps

- The AWG will disseminate reports of the dissemination meeting and the curriculum review studies to stakeholders.
- The AWG will support implementation of AMR-related activities recommended at this meeting.

Initiate next steps for implementation of AMR interventions

Further meetings to initiate next steps for implementation of specific interventions were conducted Monday and Tuesday, July 17-18.

Map out next steps for medical curriculum review

On Monday, July 16, the team met with Dr Sekelani Banda, Assistant Dean of Academic Affairs, Head of the Department of Medical Education Development at the UNZA School of Medicine, and RPM Plus consultant. The objective of the meeting was to map out next steps and the best approach for revising the undergraduate medical curriculum. Key points from the discussion include:-

- The UNZA reviews its curricula every five years. The current review process started in 2006 and new curricula are scheduled to be finalized in 2007 and implemented in 2008.
- Various interest groups, including the AWG, advocate their issues and disseminate relevant materials in order to lobby heads of departments (HODs). The HODs incorporate the issues in drafts that are first presented and discussed at sensitization workshops before being forwarded to the curriculum committee and onward to the board of studies. The issues are then prioritized against a background of available resources. AMR advocacy will compete with other issues within this ongoing curriculum review process.
- The AWG needs to develop an outline of the issues to be addressed by the medical curriculum and disseminate this together with the medical curriculum review report and other relevant AMR materials to relevant HODs at the medical school. It also needs to hold discussions with the HODs to advocate for inclusion of AMR topics in their drafts, and support some of the sensitization meetings where the drafts will be presented.
- Dr Banda is aware of the role of pre-service medical curricula as an important intervention for AMR containment. He will ensure AMR issues are incorporated into relevant departmental drafts.
- Ideally, global initiatives like the President's Emergency Plan for HIV/AIDS Relief (PEPFAR) and the Global Fund to fight AIDS, TB and Malaria (Global Fund), should be asked to put in place mechanisms to monitor AMR when they provide funding for HIV/AIDS, TB and malaria. That way the money would come with a safety net, e.g. funding for surveillance

Disseminate ICAT to the IPWG

The team attended a meeting of the IPWG, the umbrella group that advocates, supports and coordinates IP for the MOH. The once-a-month meeting allows stakeholders to discuss approaches to address IP-related issues of the day. Dr Goredema discussed and disseminated hard and soft copies of the RPM Plus ICAT to the meeting. The tools were well accepted by the group and the feedback from the discussion that followed is summarized below:-

- The tools are being disseminated at an appropriate time when the IPWG is working tirelessly to promote IP efforts in Zambia. There is a countrywide program that is currently training hospital staff on IP. The RPM Plus tools address most of the issues, e.g. hand washing, gloving, injection practices and waste management, that the IPWG is trying to address. An opportunity therefore exists to use the tools to complement this on-going effort.
- Similar quality improvement approaches, e.g. total quality management, have been tried with positive results in the Zambian laboratories, but they could not be sustained. To ensure ownership and sustainability, implementation of the tools will need to be integrated into on-going budgeted plans of the hospitals and self-motivation and teamwork will need to be emphasized. The tools could also be incorporated into pre- and in-service training of health professionals.
- Main barriers to implementation include shortage of resources to buy gloves as well as lots of competing priorities. However, if the positive results of implementing the tools can be documented and shown; people will be motivated to continue applying them.
- Some of the module questions may be too complicated. They may need to be simplified.
- The IPWG and MOH will review the tools, decide if and when to implement the infection control assessment tool and provide further feedback to RPM Plus. However, RPM Plus may go ahead and explore opportunities of buying into on-going IP activities at UTH.

Wrap up

Wonder and Oliver wrapped up by agreeing that:-

- Wonder will compile and forward the minutes of the AWG meeting of August 12 to the AWG secretariat for finalization and dissemination by end of July 2006.
- The AWG will first meet to review the draft plan for next steps proposed at the curriculum review dissemination meeting. Then the AWG will further develop the draft into a strategic plan for implementing AMR interventions and officially disseminate it to the MOH and other implementing organizations, together with the curriculum review reports and any other relevant AMR-related data. The strategic plan will be adapted into specific plans for implementation by the relevant stakeholders. It will also be used by the AWG to acquire funding and support and monitor implementation of the interventions.
- In his capacity as the AWG secretariat, Oliver will plan and coordinate the ZNFC meeting to plan the technical review of the STGs by end of July 2006. The ZNFC will plan to review the STGs for infectious diseases (IDs) and other agreed relevant conditions at a weekend retreat of 20-25 experts by the end of September 2006. Thereafter, the AWG will support and collaborate with the MOH and RPM Plus to ensure

that the technical editing, finalization and dissemination of the updated guidelines are not delayed any further. Funding for the retreat will be sought from RPM Plus.

- The AWG will continue to collaborate with RPM Plus and Dr Banda to map out concrete steps to move ahead with AMR advocacy activities within the curriculum review process at UNZA in FY06.

Collaborators and Partners

- The RPM Plus Regional Technical Advisor, Mr. Oliver Hazemba is the key local counterpart who has overseen all AMR-related activities in Zambia since the beginning of the pilot in 2003.
- The AWG has championed the AMR advocacy and containment process under the leadership of its chair, Professor Chifumbe Chintu. Dr. Goredema and Mr. Oliver Hazemba met individually with some members of the AWG-Professor Chintu, Dr. V. Mtonga, Dr. James Mwansa and Mr. Patrick Mwanza-and also participated in the group's meeting on July 12, 2006. To ensure success, it is critical for the AWG to continue to lead and support stakeholders implementing the interventions. Immediate next steps will include coordinating and providing support for the planned review of STGs by the ZNFC and for the AMR advocacy activities within the curriculum review process at the UNZA School of Medicine.
- The consultant who reviewed the medical curriculum for RPM Plus, Dr Banda, is the Assistant Dean for Academic Affairs and Head of the Department of Medical Education Development at the UNZA School of Medicine. He is well-positioned to ensure incorporation of AMR topics in relevant departmental curricula at UNZA. He is passionate about AMR-related issues and has already sensitized the departments on the importance of HIV/AIDS and TB and the need to for therapeutic guidelines. Dr. Banda, Mr. Oliver Hazemba and Dr James Mwansa could be key members of an AMR advocacy core group that could play an important role in championing the AMR advocacy process at UNZA.
- Mr. Patrick Mwansa has contributed to the Zambia AMR advocacy and containment effort as a member of the AWG and also by providing different consultancy services. He conducted a rapid assessment of media presence and communication channels on drug resistance in Zambia in 2004 and has collaborated in coordinating various other AMR activities. The AWG will benefit from his continued collaboration.
- In February 2006, technical staff from the Leadership, Management, and Sustainability (LMS) program of MSH collaborated with RPM Plus in evaluating the Zambia advocacy process and recommended that RPM Plus utilize appropriate advocacy expertise to advance the advocacy capacity of the AWG. Further collaboration with LMS in that regard will be important for success in Zambia.
- The IPWG is an umbrella body that embraces a wide variety of stakeholders on infection prevention in Zambia, including the MOH, hospitals, non-governmental organizations (NGOs), nursing schools, the waste management authority and others. RPM Plus will follow up implementation of ICAT in Zambia through the IPWG and MOH.

NEXT STEPS

Immediate Follow-up Activities

- The AWG coordinated a ZNFC meeting on August 24, 2006 to plan the technical review of the Zambia STGs.
- On August 25, 2006 discussions were held with Dr James Mwansa, coordinator of the infection prevention program at UTH and it was agreed to implement the ICAT to complement on-going IP activities at UTH. It was later proposed to start by implementing the tools on a smaller scale in one or two departments of the hospital, in collaboration with the UTH IP committee. Finalization and implementation of the plan is scheduled for FY06.
- The AWG collaborated with RPM Plus and the MOH in coordinating and facilitating a ZNFC retreat September 22-24 where the ID components (and other relevant chapters) of the Zambia STGs were reviewed. A report of the meeting will be submitted to RPM Plus.
- The AWG will continue to collaborate with RPM Plus and the MOH to coordinate the technical editing, finalization and dissemination of the updated STGs. Support will be sought from RPM Plus for professional editing, production and printing.
- The AWG will form an AMR advocacy core group to develop an outline of the issues to be addressed by the medical curriculum and disseminate this together with the medical curriculum review report and other relevant AMR materials to relevant HODs at the medical school. The core group should hold discussions with the HODs to advocate for inclusion of AMR topics in their drafts, and the AWG should support some of the sensitization meetings where the drafts will be presented.
- the AWG will develop a strategic plan for AMR containment to guide it to advocate, follow up and support the MOH and other implementing organizations. The AWG chair will write to the MOH and other relevant stakeholders to disseminate the curriculum review dissemination workshop report, the curriculum review reports, other relevant AMR-related data and the strategic plan, and to recommend appropriate interventions for AMR containment
- The AWG will continue to collaborate with RPM Plus in advocating, following up and supporting implementation of interventions.
- The AWG will collaborate with RPM Plus in publishing and disseminating the previously developed print media materials on appropriate use of medicines

Recommendations

- AWG secretariat to develop and disseminate a strategic plan for supporting and monitoring implementation of AMR activities by the AWG, MOH, teaching institutions and other relevant partners.
- RPM Plus to collaborate with the AWG in fostering AMR advocacy within the UNZA curriculum review process.
- RPM Plus to collaborate with the AWG in coordinating and supporting the review and finalization of STGs.

- Follow up feedback and possible implementation of the ICAT with the IPWG and MOH. Meanwhile, initiate implementation of the tools in collaborating with the on-going IP program at UTH.
- Collaborate with the Leadership, Management, and Sustainability (LMS) program of MSH to advance the advocacy capacity of the AWG
- Explore possibility of collaborating with in-country PR firms and international advocacy experts in advancing the AMR communication and advocacy process.

Important Upcoming Activities or Benchmarks in Program

Ethiopia stakeholders 'call-to-action' meeting

There are plans to hold a stakeholders 'call-to-action' meeting in Ethiopia November 16-18, 2006, to move forward the AMR advocacy and containment process that was started in Addis Ababa in February-March 2006. The Ethiopia AMR Task force is planning on inviting Mr. Oliver Hazemba and Professor Chintu to share the Zambian experience at the meeting.

ANNEX 1. SCHEDULE OF ACTIVITIES

SCHEDULE OF ACTIVITIES UNDER THE SCOPE OF WORK FOR WONDER GOREDEMA'S VISIT TO ZAMBIA; JULY 10-19, 2006

Sunday, July 9, 2006

- Arrive

Monday, July 10, 2006

- 8-9am: Meet with Oliver Hazemba to plan activities
- 9:15-10:15: Briefing with Professor Chintu
- 12-2pm: Meet with the curriculum review consultants (Dr S. Banda, Ms Muriel Syacumpi, Mr. Haachile Moonga and Ms Marjorie Kabinga) to start preparations for the curriculum review dissemination meeting; draft PowerPoints.
- 3:30 to 4:30pm: Briefing with Dr. Velepi Mtonga at the MOH

Tuesday, July 11, 2006

- 10:30-11:30 am: Briefing with Ms Caroline Yeta
- PM: Draft PowerPoints and prepare other materials for the dissemination meeting; plan and strategize

Wednesday, July 13, 2006

- 8:30-1:15: Prepare presentations for dissemination meeting; plan and strategize
- 1:15-2:15: Briefing with Dr. James Mwansa
- 2:30-3:30: Attend AWG meeting

Thursday, July 13, 2006

- AM: Meet with curriculum review consultants to finalize their PowerPoints for the curriculum review dissemination meeting
- PM: Finalize all PowerPoints and other materials for the curriculum review dissemination meeting

Friday, July 14, 2006

- 9:30-1pm: Hold the curriculum review dissemination meeting at the Taj Pamodzi Hotel, Lusaka.
- 1:30-2:00pm: Review the dissemination meeting with Oliver and Professor Chintu
- 3-5pm: Compile minutes of the meeting
- Plan and strategize

Monday, July 17, 2006

- 8-11:30:
    - Plan and strategize next steps with Oliver
    - Consolidate minutes of the meeting with Oliver and Mr. Patrick Mwanza
- 12-1pm: Meet with Dr. S. Banda at UNZA
- Plan and strategize with OH

Tuesday, July 18, 2006

- Disseminate the ICAT to the IPWG at the JPIEGO offices

Wednesday, July 19, 2006

- Wrap up with Oliver
- Depart

ANNEX 2. MINUTES OF THE AWG MEETING HELD ON WEDNESDAY, JULY 12, 2006

MINUTES OF THE AMR ADVOCACY WORKING GROUP MEETING HELD IN THE MSH/RPM PLUS BOARDROOM ON WEDNESDAY, JULY 12, 2006; 14:30-15:30 HRS

Present:

- Professor Chifumbe Chintu (CC) - chairperson
- Mrs Bernice Mwale (BM) - member
- Dr James Mwansa (JM) - member
- Ms Ann Zulu (AZ) - member
- Dr Jennifer Chisanga (JC) - member
- Oliver Hazemba (OH) - member
- Wonder Goredema (WG) - observer; taking minutes

Agenda

1. Chairman's introduction and welcome remarks
2. To review progress of overall AMR containment activities to date
   i. Discuss the planned AWG-supported meeting to disseminate curricula review reports, scheduled for Friday, July 14, 2006
   ii. Discuss progress regarding STGs review.
   iii. Discuss infection prevention (IP).
   iv. Discuss progress regarding dissemination of media briefs on reducing drug resistance
3. Discuss ideas for next steps
4. Discuss any other business (AOB).

Topic	Discussion
1. Chairman's introduction and welcome Remarks	• The Chairperson started by welcoming the members to the meeting and noting that it's been a long time since the last AWG meeting held after the June 2005 Protea STGs meeting. He also had WG and those AWG members he had not yet met self-introduce themselves. • He was concerned that the minutes of the last meeting were not available • The agenda of this meeting was proposed by the chair and passed by the members
2.(i) Curricula review reports dissemination meeting	• The purpose of the meeting on Friday will be to review progress of the AMR containment activities in Zambia to date, present and review the findings and recommendations of the recently completed appraisals of pre- and in-service training of health care professionals and then use this and recommendations arising from discussions to draft a plan for next steps. • The following have been invited to the meeting: The MOH Director of Technical Services; The ZNFC Secretariat at MOH; HODs from UNZA School of Medicine; representatives of basic and post-basic nursing schools, pharmacy schools, CHINAMA; professional councils and associations; PRA, APUA, NMCC. • The medical review report is ready for dissemination, the in-service report is due to be finalized by the editing department anytime now, the nursing report will soon be submitted for final editing and the pharmacy report is still undergoing technical editing.
2(ii) Review of STGs	• The AWG was concerned that it was taking so long to review the STGs. He noted that due to some recent developments in clinical management

	(e.g. issues with WHO guidelines for diagnosis of clinical malaria, issues with use of cotrimoxazole for PCP prophylaxis, addition of Ethambutol to TB management protocol, etc it was necessary to also review the Protea recommendations. • It was noted that nothing had happened since the Protea recommendations of June 2005 had been passed on to the ZNFC secretariat. According to Ms Caroline Yeta of the ZNFC Secretariat , the secretariat is only 1 person (her) and she has had no time for STGs, as she has been busy with competing commitments. She is now requesting the AWG to assist with (**1**) organizing a meeting (by end of July 2006) to brief the ZNFC on the Protea recommendations and have them decide on what (part or all the STGs) to review and also on a plan for the technical review (**2**) organizing the STGs technical review meeting of the ZNFC (by September 2006). • There was concern that the mandate of the current ZNFC may have expired and new appointments may be required to be made by the PRA. The PRA representative noted that the PRA was not yet up and running, and suggested that the ZNFC continues under the auspices of the MOH. • Prof CC reported that he has disseminated about 50 copies of the STGs to medical students. • The meeting resolved to assist organize the MOH/ZNFC meetings-the 1st (by end of July 2006) & **2nd (**by September 2006) above.

2(iii) Infection prevention	• It was noted that poor IP, notably poor hand washing and gloving practices and associated nosocomial infections were a problem in hospitals. It was reported that the Infection Prevention Technical Working Group (IPTWG) has developed IP guidelines and gone out to districts to disseminate and create awareness and train staff about the guidelines. The IP working group at UTH is currently training hospital staff on IP. The RPM Plus team has been invited him to attend the next meeting of the IPTWG at 14:30HRS on Tuesday, 7/18 to discuss the RPM Plus IP assessment tools and explore opportunities for collaboration.
	• Although ideally there should be an infection prevention committee (IPC) in every hospital, so far only Ndola has them, the rest of the hospitals largely don't.
	• Some hospitals are now using alcohol-based hand rub. This is a big positive step, though there may be questions about sustainability.
	• The AWG is requesting:
	  o UTH to share any IP materials they have (including guidelines) with the AWG.
	  o RPM Plus to share their IP assessment tools with AWG, IPTWG and UTH, so they can review and see if they would work for them

2(iv) Dissemination of media briefs	• The radio and printed materials are very good
	• Funding is still a problem. The materials were produced a long time ago, but have not yet been reproduced and disseminated, due to lack of funding (original total quote was $80 000-00 for 2 radio broadcasts/day in all languages over 90 days, otherwise $20 000-00 if broadcast in English alone) Dr V. Mtonga has suggested that perhaps the AWG should explore:
	  o Integrating these activities in day-to-day plans of MOH
	  o Writing a strategic plan for next steps and funding for AMR containment activities, integrated within on-going partners' plans.
	• It was noted that the last AWG meeting in mid 2005 had resolved to write a strategic proposal to use to seek funding from donors, but that had never been done. Members recommitted to write the strategic proposal for funding to support the MOH and other organizations implementing AMR

	containment activities, including reproduction and dissemination of the media jingles and review of STGs. OH would develop the 1st draft.
3. Next steps	• An action-oriented draft plan for next steps will be developed at the dissemination meeting on Friday. The AWG will then further develop the draft into the AWG strategic proposal, to be: o Used by the AWG to source funding for AMR containment activities o Adapted into specific action plans and implemented by relevant partner organizations. • If the pre- and in-service training and STG review activities in the action plan are implemented successfully that will be a major step, as the activities would capture both current and future prescribers.
4.AOB	• The lessons learnt in Zambia are being considered as initial advocacy and coalition—building activities are being implemented in Ethiopia. • Link Media produced a report of their recent interim appraisal of the AMR advocacy and containment activities in Zambia. The AWG will disseminate the report to AWG members and other stakeholders. • Prof CC, JM and others recently met with an RPM Plus team who were discussing Tanzanian experiences and exploring possibilities for rolling out (i) use of minilab kits for testing drug quality at ports of entry into the country (ii) pharmacovigilance activities. The director of PRA and 1 other person will soon go to Tanzania to learn more from the Tanzania FDA and then come back and implement the activity. It was noted that all this was in response to AMR initiatives and that negotiations are currently underway to secure funding for the minilab kits from the WHO and CHAZ.

ANNEX 3. MINUTES OF THE CURRICULUM REVIEW DISSEMINATION MEETING HELD ON JULY 14, 2006

MINUTES OF THE CURRICULUM REVIEW DISSEMINATION MEETING HELD AT TAJ PAMODZI HOTEL, LUSAKA, ZAMBIA ON JULY 14, 2006; 9:30 -13:30 HRS

Agenda
-see annex (i)

List of participants
-see annex (ii)

A total of 26 participants attended the meeting, representing the government, health professionals, such as doctors, pharmacists, nurses, laboratory professionals and other allied health professionals), universities, professional societies, the private sector and non-governmental organisations. Patrick Mwanza and Wonder Goredema took minutes of the proceedings

1. Introduction

In his opening remarks (see annex (iii)) the Chairperson of the AMR Advocacy Working Group (AWG), Professor Chifumbe Chintu:

- highlighted the importance of Antimicrobial Resistance (AMR) and noted that AMR activities, including the recently completed reviews of health curricula and today's dissemination meeting, are going on against a background of combination therapy in the management of malaria, TB, HIV/AIDS and other conditions.

- gave a background and overview of the achievements of the AWG and the lessons learnt to date in Zambia.

- noted that AWG will develop a strategic plan for next steps and funding for AMR containment activities

- and that AMR activities are part of on-going plans of the Ministry of Health (MOH), training institutions and other relevant stakeholder organisations.

- mentioned that the MOH in collaboration with Antimicrobial Resistance Working Group (AWG) and Management Sciences for Health (MSH) had conducted reviews of Antimicrobial Use (AMU) and AMR-related content of pre- and in-service undergraduate medical, pharmacy and nursing curricula in Zambia.. The reports of the reviews are ready for dissemination.

- He said the objectives of the meeting were to:

    - present reports of the reviews of pre-and in-service training of health care professionals in Zambia.

    - review the study recommendations and current issues and draft a plan for next steps.

2. Presentation of reports of the review of pre- and in- service training of health care professionals in Zambia

Four curricula review reports were presented (see annexes (iv)-(vii))

After each presentation participants made comments and observations. The meeting identified some factors associated with the misuse of drugs and worsening AMR situation in the country.

1. Medicine:

Title: Antimicrobial Use and Resistance in the University of Zambia (UNZA) Medicine Curriculum,
Authored and presented by: Dr. Sekelani Banda

Comments and Observations:

- Delays in processing and/or delivery of culture and sensitivity results by hospital laboratories result from:

    - Limited or non-availability of sensitivity plates in laboratories
    - Inadequate staff in laboratories and wards
    - Late release of cultural sensitivity results from laboratories
    - Lack of liaison between physicians and pharmacy staff on drug status
    - Lack of communication between physicians and laboratory staff

- Medical professionals are not adhering to basic hygiene standards, e.g. hand washing and gloving guidelines

    - Some health institutions lack basic facilities such as water
    - Need to emphasize the importance of infection prevention (IP). Train staff to raise awareness, knowledge and adherence to IP guidelines.
    - Trained staff should train others in their units.
    - Need to improve water facilities and availability of gloves, and promote hand washing and gloving practices

- There is proliferation of cheap, substandard medicines on the market

- There is concern about the WHO guidelines for using cotrimoxazole for prophylaxis of PCP without enough evidence on development of resistance

2. Nursing:

Title: Curriculum Review of Basic and Post-Basic Nursing Training Programme –
Authored and presented by: Ms. Muriel Syacumpi
Comments and Observations:

- IP is a big problem in hospitals. Nurses are not observing best practices for hand washing and use of gloves. They generally use the same pair of gloves the whole day.

- The main problem is lack of resources to buy the gloves

3. Pharmacy:

Title: Rapid Assessment of Pre-Service Pharmacy Training on Antimicrobial Resistance in Zambia
Authored and presented by: Haachile Moonga

- The use of Pharmacy Technicians to dispense in private pharmacies is resulting in irrational use of medicines. This should be controlled.

- some pharmacists misadvise patients to buy 'new' expensive antibiotics instead of the cheaper , prescribed medicines.

4. In-service Training:

Title: Rapid Assessment of In-Service Training of Health Care Providers on Antimicrobial Resistance in Zambia
Authored and presented by: Marjorie Kabinga
Comments and Observations:

- There is need for continuing health education and regular update of Standard Treatment Guidelines (STGs) to meet the challenges of ever-changing medical trends

However, the meeting overwhelmingly identified **poverty** as the factor most contributing to antimicrobial misuse and AMR in Zambia.

Questions (Q) and answers (A) arising from discussions

Q. Is there a system in place to detect counterfeit and substandard drugs in Zambia?

A. Before the **o***ld legislation that required testing of drugs entering the country was not well-enforced. It is hoped that new Pharmaceutical Regulatory Board (PRA) legislation will address the problem. PRA just opened a small office at the airport to control traffic of drugs into the*

country. The PRA is hoping to introduce minilab drug-testing kits within the next few months. However, the country really needs a national drug quality control laboratory.

Q. To what extent are people aware of the existence of disease policies in Zambia?

A. *Although Zambia has STGs for management of malaria, TB, HIV/AIDS, only a few medical personnel know of their existence. Stakeholders should educate people about the existence of STGs and antibiotic policies.*

3. Review of the study recommendations and current issues and drafting of a plan for next steps

Break Out Session

Participants were divided into four groups and tasked to review the study recommendations and current issues and then draft a plan for next steps, as follows:

Group	Topic
2	Pre- service medical
3	Pre-service pharmacy
4	Pre-service nursing
5	In-service

After 30 minutes of group work, the groups presented their draft plans (see annex 8-11). Highlights of the plans include:

Topic	Challenges	Responsible stakeholders	Timeframe
Pre-Service Medical	Lack of In-service training in AMR/IP	MOH/ professional bodies & training institutions	One year/ on going
Pre-Service Pharmacy	AMR not stand alone topic	AWG/MOH/UNZA/TEVETA* /PSZ	By September 2006
Pre-Service Nursing	Lack of AMU/AMR content in the curriculum	General Nursing Council	Six months
In-Service	AMU/AMR programmes not coordinated except for CHAZ	MOH/PRA & all professional bodies	August 2006-August 2007

*Technical Education, Vocational and Entrepreneurship Training Authority

5. Recommendations:

- Encourage stakeholders to implement activities that need little or no additional funds (e.g. promoting basic hygiene standards like hand washing in hospitals. Institutions that train health professionals should spearhead this campaign.

- Incorporate the review of medicine, pharmacy and nursing training curricula into plans of relevant teaching institutions such as the UNZA and Chainama College

of Health Sciences and take advantage of current funding under global initiatives, e.g. global fund.

- Encourage lecturers who teach in health institutions to give as much information as possible on AMU and AMR to students and young doctors.

- Update the standard treatment guidelines to be up to speed with modern medical trends. The current Zambia STGs (published in 2004) should be reviewed.

- Encourage stakeholders to advocate and lobby government to improve basic facilities such as water and availability of key infection control resources (e.g. gloves) in health institutions.

- Encourage stakeholders to educate people about AMR and on how to reduce inappropriate use of antibiotics.

- Develop and implement appropriate interventions to improve IP in hospitals, as poor IP has been highlighted as an area of concern.

- Prepare an AWG strategic plan for next steps and funding for support and monitoring of implementation of AMR activities by the AWG, MOH, teaching institutions and other partners.

- Identify stakeholders responsible for implementing specific AMR activities.

- AWG to compile and share information on AMU and AMR with all stakeholders including MOH and workshop participants.

6. Way Forward

- AWG should disseminate the meeting and study reports to stakeholders.

- AWG should identify areas of support for implementation of AMR-related activities recommended at this meeting

The chairperson thanked everyone for the “succinct and dedicated manner” in which they had participated and concluded by challenging participants to go out and teach others what they had learnt in the meeting.

Annex (i): Agenda

Time	Topic	Presenter	Facilitator
09.00-09-30	Registration	Secretariat	Rose Malunga
09.30-09.50	Official Opening Overview of AMR Containment Activities Meeting Objectives		AWG Chairman
09.50-10.00	Secretariat & Housekeeping	Rose Malunga	
10.00-10.05 10.05-1025	Introduction to study presentations • Medicine	Dr. Sekelani Banda	
10.25-10.45	• Nursing	Muriel Syacumpi	
10.45-11.05	• Pharmacy	Haachile Moonga	
11.05-11.25	• In-Service	Marjorie Kabinga	
11.25-11.30	Introduction to Break Out Session		
11.30-12.00	Break out Session		AWG Members
12.10-12.20	Medicine	Group 1	AWG Chairman
12.20-12.30	Nursing	Group 2	
12.30-12.40	Pharmacy	Group 3	
12.40-12.50	In-Service	Group 4	
12.50-13.00	Plenary & Plan for next steps		
13.00	Closing Remarks		
L U N C H			

Annex (ii): List of participants

	NAME	DESIGNATION	ORGANISATION	MOBILE	E - MAIL
1	TED SOKENI	V/TREASURER	UNZAMEDSSU	095 208198	sokted@yahoo.com
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3.	HAACHILE MOONGA	PHARMACIST	KATALE'S PHARMACY	097 839966	hcmoonga@yahoo.com
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	CHELLAH	CIPAL			m
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16.	MR. P. CHANDA	RESEARCH OFFICER	NATIONAL MALARIA CONTROL CENTRE	097 879101	
17.	MRS JENNIFER MUNSAKA	EXECUTIVE DIRECTOR	ZAMBIA NURSES ASSOCIATION	225135/ 097 674385	znazam@zamnet.zm
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23.	DR. S. LAKHI	HOD	MEDICINE	095 816682	
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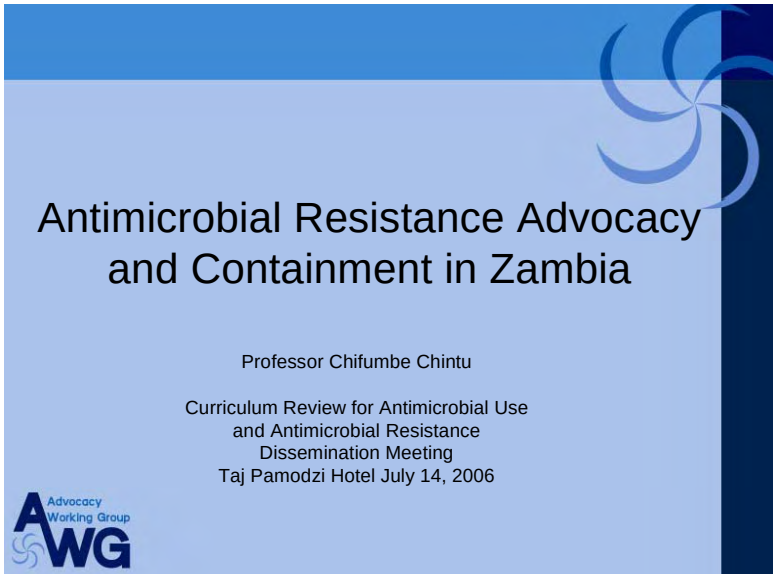
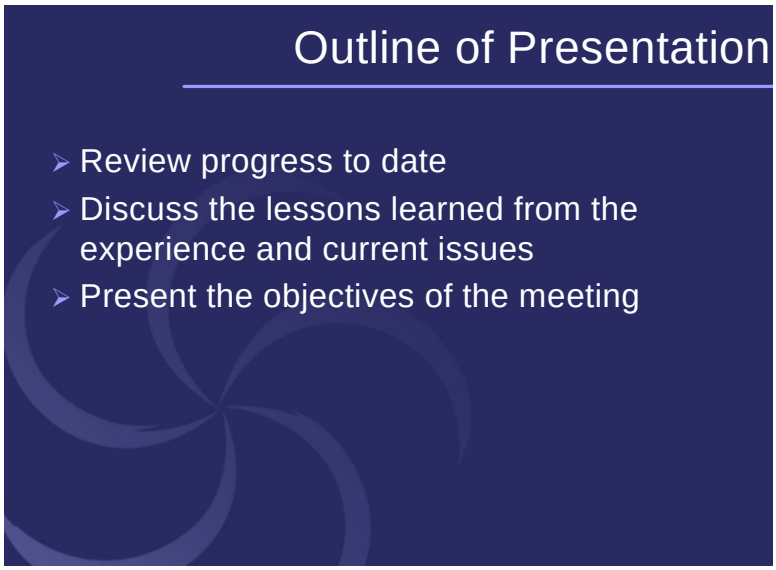
Annex (iii): Professor Chintu's opening remarks





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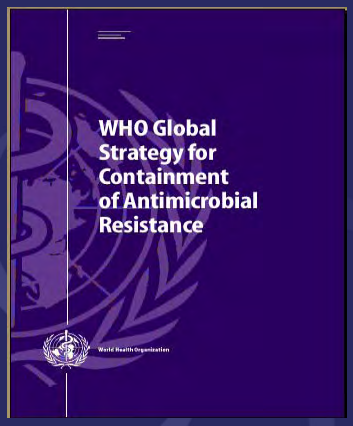


- AMR is a global public health threat that needs urgent action
- In 2001, WHO released a global strategy to contain AMR
- AWG in collaboration with MOH and other stakeholders have been implementing various activities to contain AMR since 2004

Progress to Date (1)

- AMR advocacy working group (AWG)
  - formed in March 2004
  - Wide representation of experts and concerned citizens
  - Drafted a "Call to Action" document to generate advocacy
  - Organized a "Call to Action" meeting attended by 70 AMR stakeholders on November 12, 2004

Progress to Date (2)

- Pushed for broad coverage of AMR issues in national and local newspapers
- Conducted a rapid analysis of local AMR situation (Feb-July 2004)
- Developed a campaign theme and print and radio materials to promote drug use for dissemination (March/April 2005).
- Developed recommendations for revising & implementing STGs for major infectious diseases and submitted them to the ZNFC secretariat for further action (June 27-29, 2005).

Progress to Date (3)

- Collaborated with Link Media in conducting an interim rapid appraisal to review program achievements & identify effective future advocacy strategies
- Reviewed pre- and in-service training of health care professions for AMR content (2005/6)
- Collaborated with the Alliance for the Prudent Use of Antibiotics (APUA) country chapter.
- Collaborated in developing an AMR workbook to guide the roll out the Zambian experience to other countries

Application of the model in Ethiopia

- First AMR stakeholders meeting held on March 2, 2006 in Addis Ababa
  - The meeting decided by consensus to form an AMR interim committee to develop clear terms of reference for an AMR working group and then hold a "call-for-action" meeting in the near future
  - The ToR's were developed in June 2006
  - A DTC course is scheduled for July 2006
  - The "Call-for-Action" meeting is scheduled for September 2006

Lessons Learnt

- The AWG plays the role of catalyst and collaborates with relevant implementing bodies for various interventions
- To increase impact the AWG uses advocacy as a central strategy to support AMR objectives.
- To ensure support, AWG integrates AMR as a value-added activity into existing health programs.
- To sustain and provide continuity of the AMR containment process, AWG seeks diversified funding for implementing AMR activities.
- Our plan and objectives for next steps should be clearly articulated

Current Issues

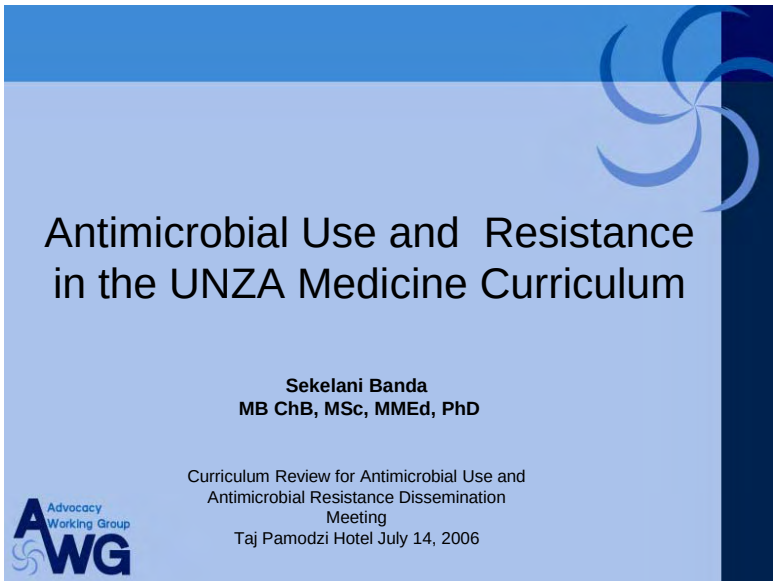
- AWG will develop a strategic plan for next steps and funding for AMR containment activities
- AMR activities are integrated into on-going plans of relevant stakeholder organizations
  - In-service training (MOH)
  - STGs (MOH/ZNFC)
  - Pre-service training (training institutions)
  - Radio and printed materials (AWG)

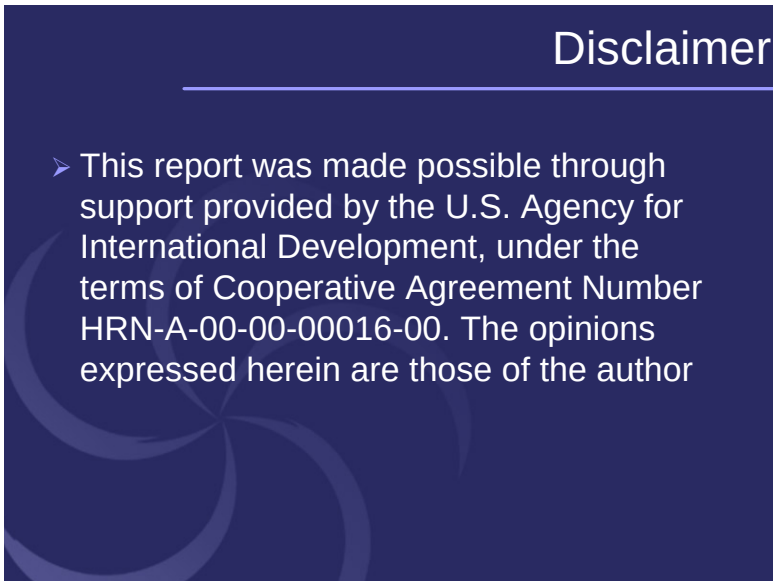
Meeting Objectives

- To present reports of the reviews of pre- and in-service trainings of health care professionals in Zambia
- To review the study recommendations and current issues and develop a plan for next steps

Thank You

Annex (iv): Presentation 1 by Dr. Sekelani Banda: Medical Review Report





Recommended Citation

- **Banda, S. 2006. *Curriculum Review and Interview of Experts to Identify Topics on Antimicrobial Use and Antimicrobial Resistance Included in the Undergraduate Medicine Training Program in Zambia*. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.**

Objective of the Study

- Conduct a curriculum review and interview experts to identify antimicrobial (AM) use and antimicrobial resistance (AMR) topics included in undergraduate medical training programme in Zambia.
- To identify gaps in the training programme and to assist in developing recommendations on suitable modifications and additions required in the Zambian context to ensure adequate coverage of these topics.

Survey Methods

- Curriculum review
- Interviews with lecturers, governmental officials, and representatives of the professional physicians association
- Focus group discussions with graduates to review the findings

Methods: Curriculum Review

- Part A was a course review using a Course-by-Course Review Form to identify the course, its learning objectives, and its content.
- A preliminary analysis for AM Use and AMR content was explored for each course.
- Each course was categorized as AMU/AMR-related or non-AMU/AMR related, using general themes from the *WHO Global Strategy for Containment of Antimicrobial Resistance*.

Methods: Curriculum Review

- Part B was the Course Summary Form and was used to gather information about:
  - total number of courses in the curriculum,
  - approximate length of each course,
  - overall length of the curriculum,
  - content covered,
  - total number of courses with AMU/AMR content,
  - approximate amount of time devoted to AMU/AMR-type content,
  - and teaching/learning methods.

Methods: Curriculum Review

- Information from Part B was used to determine the total course time devoted to AM/AMR related teaching, using the following calculations—first, the total number of hours spent in the curriculum for all the courses was calculated. Second, using the focus group discussion with five graduates of the curriculum, the total number of hours spent on each major topic area was estimated and compared to the total number of hours spent on courses categorized as AM/AMR related.

Summary of Features of the MB ChB Curriculum

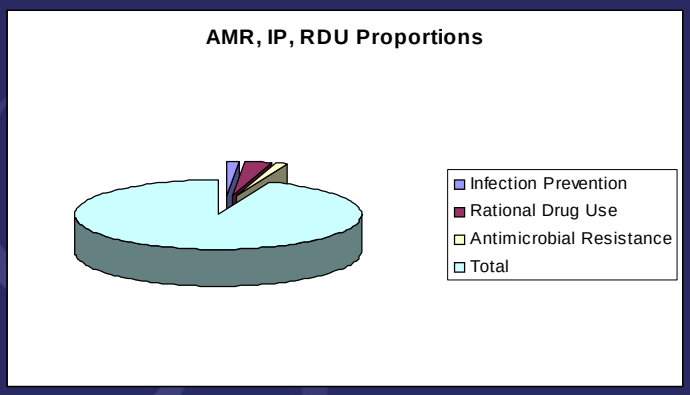
- Total number of courses in curriculum = 40
- Total number of hours in curriculum = 2,800 hours over 5 yrs
- Number of AM/AMR-related courses = 10
- Total number of hours of AM/AMR-related courses = 700 hours
- Hours per course = 70

(Source: *Reference Book 2000)*

Curriculum Review Results

- Of these 700 hours, teaching hours in infection prevention (IP), rational use of medicines (RUM), and AMR were distributed as follows—

Proportion of AMR-related Courses



In absolute numbers of hours:

- Infection Prevention = 43.75 hours;
- Rational Use of Medicines = 87.5 hours;
- Antimicrobial Resistance = 43.75 hours

(generated from focus group discussions with graduates).

Gaps: Antimicrobial Use

- Issues of patients' misconceptions about AM treatment, self-medication, and poor adherence were not specifically addressed in either preclinical or clinical years.

Gaps: ***Infectious Diseases of Major Public Health Importance***

- No special attention was paid to the use of antimicrobials in treating these diseases with regard to the issue of AMR.
  - The issue is important because of increased volume of antimicrobials on the market caused by international initiatives such as The President's Emergency Plan for AIDS Relief and the Global Fund to Fight AIDS, Tuberculosis and Malaria.

Gaps: Infection Prevention and Immunization

- Vaccination as a strategy for IP and how it relates to reduction of AMR was not covered in courses.
- Barrier precautions (hand washing, use of gloves, gowning), isolation procedures, injection safety and appropriate use of injections, sterilization and disinfection of supplies and equipment, and aseptic techniques for medical procedures were not taught as topics in lectures and tutorials (Left to apprenticeship)

Gaps: Rational Use of Medicines

- RUM & subtopics such as accurate diagnosis and selection of correct medicines, dosages, and treatment durations
- Patient education on appropriate use of medicines;
- Use of standard treatment guidelines
- The role of counterfeit medicines
- Pharmaceutical promotions coercion
- Prescribing audits

As issues that are important for the containment of AMR were not expressly addressed.

Gaps: Antimicrobial Resistance

- The extent of the AMR problem, AMR surveillance and research, and prevention and control were not taught.
- Examples of resistance—such as multidrug resistance (MDR), methicillin-resistant *Staphylococcus aureus*, and vancomycin-resistant enterococci—were mentioned in passing.
- AMR was not taught in clinical courses as a specific topic.

Recommendations

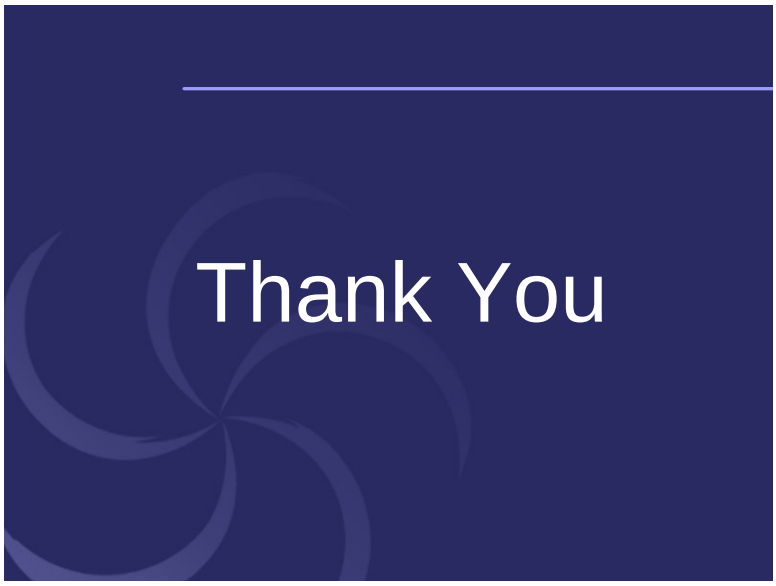
- Increase the amount and scope of coverage for AM RUM in the undergraduate curriculum.
- Increase the amount and scope of coverage for AMR and containment of AMR, especially in the clinical years.
- Draw a comprehensive curriculum outline of AMU, RUM and AMR and containment of AMR. Plan for placement of topics in the curriculum to have systematic coverage of all important components.
- Increase availability of laboratory infrastructure, supplies, and staffing to students in training to improve awareness and practices of accurate diagnosis and RUM.

Recommendations

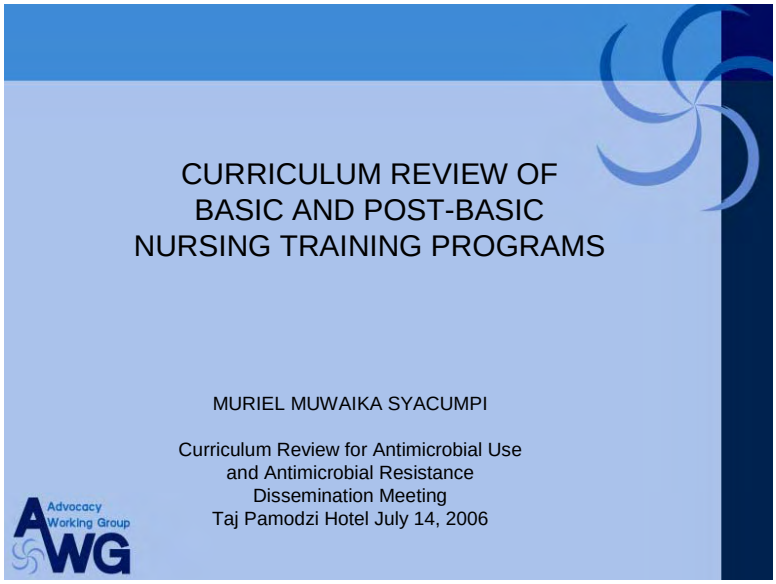
- Improve the availability of essential medicines in the pharmacies, and dissemination of EMLs and STGs for student training, to promote RUM.
- Increase awareness of students on the impact of increase of volume of consumption and availability of AMs caused by international initiatives such as The President's Emergency Plan for AIDS Relief and the Global Fund.
- Provide funds for curriculum review to support the integration of AM/AMR in the School of Medicine undergraduate programme.

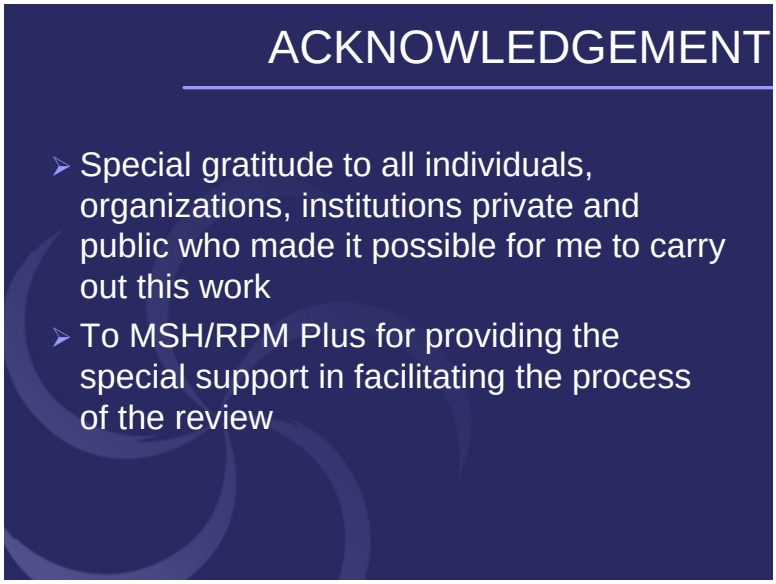
Summary

- The need for teaching AMR issues in the undergraduate medical curriculum has been established by the curriculum review and interview of experts both from the government and from the teaching faculty members.
- It is recommended that the Antimicrobial Advocacy Working Group, the Ministry of Health, and the School of Medicine commission work to oversee the systematic and longitudinal coverage of AMR (components) in the undergraduate medical curriculum.
- The faculty members must be trained to effect this change; while the other support infrastructure, such as laboratory services, must be enhanced in the undergraduate training.


Thank You

Annex (v): Presentation 2 by Ms Muriel Syacumpi: Nursing Review Report





INSTITUTIONS PARTICIPATING

- General Nursing Council of Zambia
- Ministry of Health
- School of Medicine: Post-Basic Nursing Department
- Public Nursing Schools (Lusaka, Ndola, Livingstone, Mufulira)
- Private Nursing Schools (Lusaka) x2
- University Teaching Hospital (Nursing services, Pharmacology department)
- Pharmaceutical Regulatory Authority
- School of Medicine (Microbiology department)

OBJECTIVES

- Assess AMU/AMR-related content of basic and post-basic nursing training.
- Identify gaps in the curricula based on coverage and programming of AMU/AMR topics in the training plans.

METHODOLOGY

- Review of relevant documents, including curricula, training guides
- In-depth interviews with key persons conversant with the training of nurses. These included those who are in the clinical areas, guest lecturers, lectures and tutors.
- Interns from the nursing schools and senior students
- Those at policy and regulatory levels

Findings (1)

Antimicrobial Use and Antimicrobial resistance

- **Positive attributes**
  - Adequately covered in the different courses in the 2 curricula
  - Application of knowledge in practical situation is guaranteed
  - Students are taught principles of prescribing, drug interactions, adverse drug reactions

Findings (2)

Antimicrobial Use and Antimicrobial resistance

- **Negative attributes**
- Indiscriminate prescription
- Curricula cover the drug of choice and not the process of prescribing efficiently
- AMR is mentioned but the teaching programme does not specify what should be covered.

Findings (3)

Rational drug use

- Concern raised on levels of details being taught to students
- Some hospitals have specialists/experts
- Some schools do not have specialists
- Prescriptions not challenged by other providers

Findings (4)
Rational drug use

- Rational drug use is covered, but not as a stand alone topic.
- A clause in the Nurses and Midwives Act, No. 31 of 1997 allows nurses to prescribe
- GNC has revised the nurses and midwives curricula
- GNC has developed Nurses Drug Formulary
- Poor drug supply has affected rational drug use

Findings (5)
Infection Prevention

- IP is covered in about 6 courses during basic training and applied in the clinical setting.
- Topics in immunization are adequately covered in both programs
- Lack of essential supplies has negatively affected quality of services

Findings (6)
AMR

- Viewed by all as very important in health care training
- Mostly mentioned as a complication in drug therapy
- Identified to be weak in both programs

Findings (7)
Patient Education

- Was viewed as important
- Curricula emphasizes the importance
- Patient Adherence
- Self medication
- Drug sharing practice

Gaps (1)
Basic program

- Microbiology (Half course), Pharmacology I, II,
- Medicine and Medical nursing
- Paediatrics and Pediatric Nursing
- Obstetrics and Gynaecology
- Surgery and Surgical nursing
- Public health I, II
- Fundamentals of Nursing

Gaps (2)
Post Basic Program

Courses with AMU/AMR

- Medical Microbiology,
- Community Health Nursing II, III
- Maternal and Child health II
- Medical and Surgical Nursing

Recommendations (1)

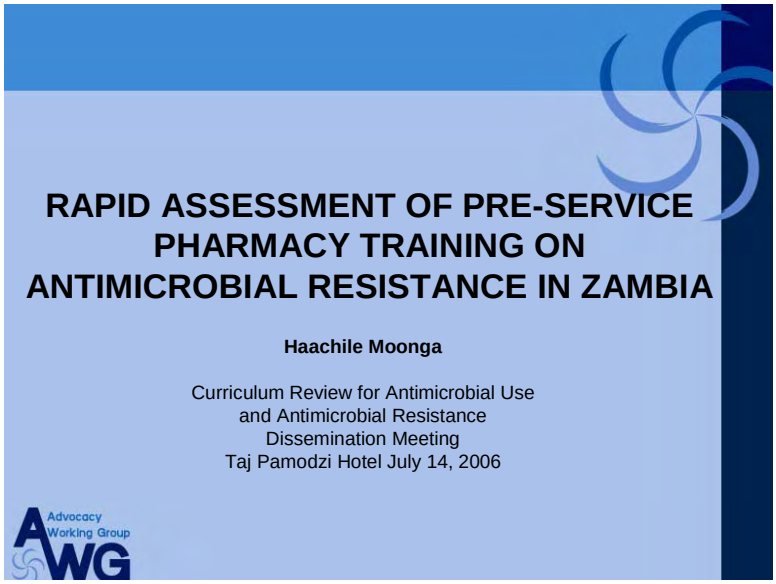
- The curriculum revision to include topics on AMR at the time antimicrobials are taught
- AMR topics should be taught early during the first year of training
- Practical classes in the laboratory to be reintroduced
- Standard Treatment Guidelines and the essential drug list should be made available to all nurses in schools and work sites.
- The STGs should clearly state the levels of staff to prescribe

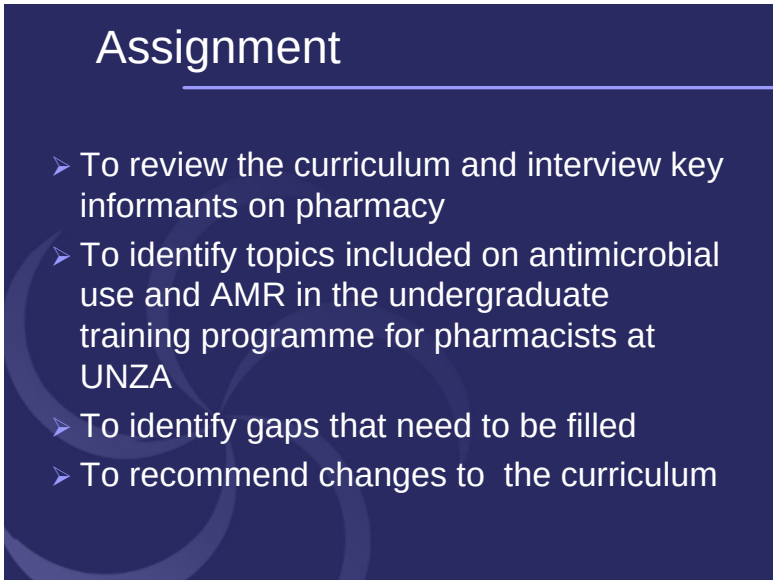
Recommendations (2)

- The GNC: nursing programs, schools to put a team of specialists from the nursing schools including post-basic program, microbiology, pharmacy to agree on the content of the revised curriculum.
- Provide funding for GNC to initiate training of nurses in prescribing skills and teach topics on AMU, AMR and AMR containment.
- The training of Laboratory Assistants should be reintroduced
- MOH should equip laboratories with the required resources.

THANK YOU

Annex (vi): Presentation 3 by Mr. Haachile Moonga: Pharmacy Review Report





Methodology (1)

The assessment involved 3 activities:

1. Conducted course by course reviews of all topics covered in the undergraduate pharmacy curriculum using the Reference book (2000), focusing on AMU/AMR related courses.

Methodology (2)

2. Interviewed relevant informants, lecturers, government officials, representatives of the professional pharmacists society and pharmacy graduates.
3. Conducted focus group discussions (FGDs) with 3 recent graduates of the pharmacy programme and took recommendations on which topics to be included.

Organisations assessed (1)

1. Central Board of Health (CBoH)- Pharmacy specialist
2. Ministry of Health (MOH)- Chief Policy Analyst (Pharmacy)
3. School of Medicine (UNZA)- Pharmacy Department
4. Pharmacy, Microbiology & Pathology Department (UTH)

Organisations assessed (2)

5. The Pharmaceutical Society of Zambia (PSZ)-President
6. The Pharmaceutical Regulatory Authority (PRA)-A/Director
7. Graduates of the undergraduate pharmacy program

Key Findings (1)- UNZA Pharmacy Reference Book (2000), the interviews, FGDs

The Bachelor of Pharmacy (B Pharm.) curriculum is composed of the following:

Number of courses	31
Number of hours	2880
Number of AMU/AMR- related courses	4
Total number of hours of AMU/AMR related courses	960
Number of hours per course	93

Key Findings (2)- Interviews of Lecturers in the department of Pharmacy

-Faculty members acknowledged good coverage on AMU but AMR is mostly mentioned in discussing other topics not as a stand alone topic.

-In Pharmacology and Medicinal Chemistry traditional approach of discussing properties of classes of Antimicrobials is used.

Key Findings (3)- Interviews of Lecturers in the department of Pharmacy (cont'd)

-Rational use of medicines is also covered

-Resistance is tackled when talking about antibiotics.

-Department of microbiology covers AMR issues (mechanism of action of antimicrobials and mechanism of antimicrobial resistance)

Key Findings (4)- Interviews of Lecturers in the department of Pharmacy (cont'd)

-Topics on AMR containment & AMR surveillance are also included

-Student do not undergo microbiology laboratory training.

Key Findings (5)- Interviews of CBoH, MOH and PRA officials

- Involved in the development of policy guidelines on use of essential medicines and National Drug Policy
- Therapeutic committees exist at every health facility to monitor AMU & AMR
- Develop strategies and guidelines (STGs and Zambia National Formulary) that promote rational use of medicines.

Key Findings (6)- Interviews of CBoH, MOH and PRA officials

- RUM is highlighted in the 1999 National Drug Policy
- The Government carries out public awareness campaigns on the use of medicines through posters and advertisements
- The PRA monitors and regulates use of medicines.
- The PRA conducts post marketing drug surveillance and adverse drug reaction monitoring

Key Findings (7)- Interviews of Pharmaceutical Society officials

- The PSZ is involved in continuing education on the issue of AMU/AMR

Recommendations

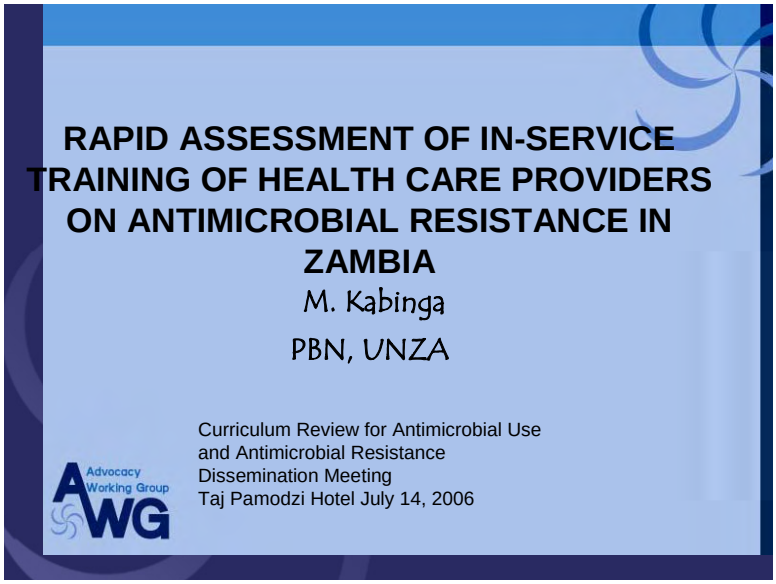
1. The time dedicated to the AMU and AMR should be increased and spread through out the curriculum
2. UNZA should develop specific content and programmes on RUM & AMR
3. UNZA should introduce more practical topics on AMR
4. UNZA should improve therapeutics and introduce applied RUM/AMR

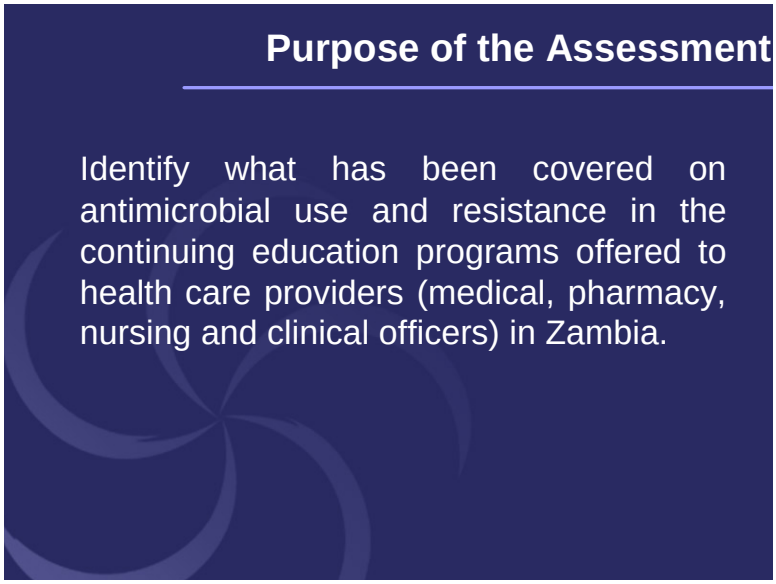
Recommendations

5. Improve hospital laboratory services
6. 7. A task force committee comprising the UNZA School of Pharmacy, MOH, members of the PSZ and AWG should be established to oversee the implementation of the recommendations
8. Disseminate the assessment findings to the MOH, teaching institutions and other relevant AMR stakeholders

Thank you

Annex (vii): Presentation 4 by Ms Marjorie Kabinga: In-Service Training Review Report





Methodology (1)

Existing local documents, reports, and literature outlining details of trainings on AMR, antimicrobial use and infectious diseases conducted in the last three years were gathered and reviewed.

Methodology (2)

Relevant contact person(s) from different organizations were contacted and face-to-face in-depth interviews conducted using a structured interview schedule.

Organizations assessed

- Government institutions
- Training institutions
- Research institutions
- Regulatory bodies
- Professional bodies
- Local/international organizations

Findings (1)

- 13 organizations were assessed
- 9 had conducted in-service trainings in infectious diseases, mainly HIV/AIDS (including ARV management and opportunistic infection management) and malaria.

Findings (2)

- ***Training on antimicrobial use and AMR:-***
  - CBoH had conducted 1 training on rational drug use and AMR.
  - CHAZ had conducted 16 trainings countywide on pharmaceutical management, rational use of antimicrobials and AMR.

Findings (3)

- Pharmaceutical Society of Zambia had conducted 1 training on concepts of rational ART, commodity use, the drug use process, dispensing practices and standard treatment guidelines (STGs).

Findings (4)

- Most reports and documents reviewed were on HIV/AIDS and ART management.
- Most health workers were not familiar with the STGs.
  - JHPIEGO, CHAZ, CIDRZ and NMCC had adopted the HIV/AIDS and malaria components of the STGs.

Conclusion

- Very few in-service training courses had been conducted on antimicrobial use and resistance.
- An STG manual exists in Zambia, but very few health workers are familiar with the guidelines.

Recommendations

- In-service training on rational antimicrobial use and AMR should urgently be planned for health care providers and teaching staff in training institutions.
- MOH should coordinate in-service training with all relevant stakeholders.

Recommendations (cont'd)

- The in-service training should be conducted consistently so that all health workers are trained.
- The training should be decentralized to the provincial and district levels
- STGs should be integrated into on-going in-service training programs.

Recommendations (cont'd)

- A monitoring and evaluation mechanism should be put in place to assess on-the-job competencies of the trained health care professionals.

THANK YOU

Group work presentation of plans for next steps

Annex (viii): Group 1 - Pre- Service Medical

PROBLEM	OBJECTIVE	PLANNED ACTIVITY	TIME FRAME	RESPONSIBLE STAKE HOLDER
Lack of continuing Education (In-Service Training on AMR/Infection Prevention	Update Health staff on current knowledge and medical practice	In-Service Training	One year on going	Ministry of Health, Professional Bodies Training Institutions
No practical teaching in the pre-service training	Reinforce practical training	Employ Adequate staff Refurbish and fund laboratories		
Lecturers/teaching staff	Employ teaching staff	Annual review of existing teaching facilities	Continuous	Ministry of Health, Professional Bodies Training Institutions
Scope of Syllabus not inclusive	Review of curriculum	C.R. Review workshop Needs Assessment	3-5 years Starting 2006	Academic Staff Institutions
Scope of curriculum to include paramedics e.g. Clinical Officers	Review curriculum	Needs assessment Curriculum review workshops	3-5 years Starting 2007	
Lack of reinforcement on Key document policies	Create awareness	Advocacy sensitisation, wide dissemination and distribution	On going by 2007	

Annex (ix): Group 2 - Pre-Service Pharmacy

PROBLEM	**OBJECTIVE**	**PLANNED ACTIVITIES**	**TIME FRAME**
AMR not stand alone topic (Pharmacy)	AMR as a stand alone topic in Pharmacy	- Establish Task Force -Review Curriculum to include AMR as a stand alone topic	September 2006 AWG MOH UNZA TEVETA PSZ
Inadequate coverage of AMR topics (Micro)	AMR as a stand alone topic in (Pharmacy)	- Establish Task Force - Review Curriculum to include AMR as a stand alone topic	September 2006 AWG MOH UNZA TEVETA PSZ
Inadequate coverage of containment and surveillance/microb	AMR as a stand alone topic in (Pharm)	- Establish Task Force - Review Curriculum to include AMR as a stand alone topic	September 2006 AWG MOH UNZA TEVETA PSZ
Lack of practical lessons	Advocate for increased funding for practical/lab support	- Task Force as above - Develop a proposal for funding (Including detailed components – HR - Infrastructure - Commodities	AWG UNZA EH
Human Resource	To recruit teaching staff and Institutions of learning	- Recruit - Retain	MOE TEVETA UNZA

Annex (x): Group 3 - Pre-Service Nursing

PROBLEM	OBJECTIVE	PLANNED ACTIVITY	TIME FRAME	RESPONSIBLE STAKE HOLDERS
Curriculum lacks the content Prescribing skills not taught at Pre-service and In-service levels	Integrating AMR/AMU and Prescribing skills into curriculum laboratory, microbiology	Constitute working group through workshops to look at content of curriculum, in relation to Pharm microbiology	6 months	GNC
Inadequate competencies by Lecturers	Develop competencies in training staff to enable them teach	Training skills within institutions. Trainers from Pharmacy, microbiology and pharmacology?	6 months	GNC
Lack of Coordination between Stake holders on information depth	Strengthen coordination between Stake holders	-Appoint coordinator - Develop terms of reference for committee and coordinators	4 months	GNC
Dissemination of the prescribing formula	To assess the prescribing NSG formula and other relevant learning materials	Dissemination of NSG? Formulary other important documents	July-August 2006	GNC

Annex (xi): Group 4 - In-Service

PROBLEM	OBJECTIVE	PLANNED ACTIVITY	TIME FRAME	RESPONSIBLE STAKE HOLDER
No documented planned programs on AMU/AMR from all the organizations except for CHAZ	Initiate coordinated permanent training programs on AMU/AMR	- Stake holder consensus building meeting - Research - Dissemination of Findings - Review Existing Documents - In-Service training	August 2006 August 2007	MOH PRA ALL professional bodies
STGS - Not widely distributed	To distribute STGS to every health worker Public/Private	- Production of enough STGS - To expand/ Improve on logistics on their distribution - Re-orientation of the end users to these documents	October 2006 October 2007	MOH PRA ALL Professionals Bodies
Poor funding to institutions	To increase funding for continuing education	Sensitization of funding agents	Initiated and on going	MOH

ANNEX 4. REQUEST FOR COUNTRY CLEARANCE

REQUEST FOR COUNTRY CLEARANCE

To: Barbara Hughes, USAID/Zambia
Jeannie Friedmann, USAID/Zambia
Abdi D. Mohammed, USAIS/Zambia
Dyness Kasungami, USAID/Zambia
Lisa Luchsinger, USAID/Zambia

From: Management Sciences for Health (MSH)/Rational Pharmaceutical Management Plus (RPM Plus) Program, Cooperative Agreement # HRN-A-00-00-00016-00

Subject: Request for Country Clearance for travel for Wonder Goredema to Lusaka, Zambia from July 10, 2006-July 19, 2006

Copy: Anthony Boni/Global HPSR/CTO RPM Plus
Kama Garrison, Pharmaceutical Management Advisor, USAID/GH
Douglas Keene, Director, MSH/RPM Plus
Maria Miralles, Deputy Director, MSH/RPM Plus
Michael Gabra, Program Manager for East Africa and Child Survival, MSH/RPM Plus
Mohan Joshi, Program Manager for AMR, MSH/RPM Plus
Oliver Hazemba, Technical Advisor, MSH/RPM Plus, Lusaka

1. The RPM Plus Program wishes to request country clearance for proposed travel to Lusaka, Zambia by Wonder Goredema, Senior Program Associate for Antimicrobial Resistance, RPM Plus Program for the period July 10, 2006-July 19, 2006.

2. Background

Antimicrobial resistance (AMR) is a major global problem. Increasing morbidity and mortality and associated health and socioeconomic costs are resulting from infections, including HIV/AIDS, TB and malaria, that are resistant to common first line treatments. In 2001 the WHO published a global strategy for containment of AMR to be used as a basis for building country-specific approaches for containing AMR. The U.S. Agency for International Development has supported Rational Pharmaceutical Management Plus (RPM Plus) Program of Management Sciences for Health (MSH) and other partners, to develop and pilot a systematic approach for country-level advocacy and containment of AMR. The pilot involves building a coalition of local stakeholders to promote advocacy, using local data to analyze the prevailing AMR situation, and then identifying, prioritizing and implementing appropriate country-level interventions to contain AMR in Zambia. Based on the Zambian experience, a generic model is being developed and laid out in a workbook for building local support for containing drug resistance. The workbook will

be disseminated to interested countries to adopt and/or adapt and implement to suit their AMR situations, based on their local data.

To date, the AMR advocacy working group (AWG) and various stakeholders in Zambia have collected and analyzed data on the prevailing AMR situation and also on AMR-related pre- and in-service training of health professionals and on the AMR content of the infectious diseases (ID) components of standard treatment guidelines (STGs) in Zambia. Based on all this, the AWG has decided to focus on infection prevention and control (IPC) in health facilities, review both pre- and in-service training of health care professionals and update the ID components of the Zambian STGs. In June 2005, a workshop for physicians recommended changes to be incorporated in the next revision of ID components of the STGs. The recommendations were later submitted to the Zambia National Formulary Committee (ZNFC). It is now time for the AWG to review progress and plan the next steps for implementation of their priority interventions. RPM Plus plans to further collaborate with the AWG and provide technical assistance to move forward with this process.

3. Purpose of Proposed Visit
   Dr. Goredema will travel to Lusaka, Zambia to meet and coordinate with Mr. Oliver Hazemba and with AWG members and other in-country partners to review progress and initiate next steps for implementation of the prioritized interventions for containment of AMR in Zambia.

4. Scope of Work
   During the proposed visit, Wonder will:

viii. Finalize logistics and coordination of planned activities with Mr. Oliver Hazemba.
ix. Meet with AWG members to brief them on the recently completed appraisals of pre- and in-service training in Zambia; review overall AMR containment progress to date and plan next steps for implementing AMR interventions (curriculum review, updating of ID components of the Zambian STGs and IPC).
x. Meet with relevant university officials to plan the appropriate approach and next steps for revising the undergraduate medical curriculum.
xi. Meet with the Zambia National Formulary Council (ZNFC) chairperson to discuss progress regarding the revision of ID components of STGs and possibly plan a ZNFC meeting to plan next steps in this work.
xii. Meet with Central Board of Health (CBoH) officials to discuss next steps for in-service training.
xiii. Explore the possibility of utilizing the infection control assessment tools and rapid cycle quality improvement methodology on the RPM Plus infection control CD package to complement current IPC program activities in Zambia.
xiv. Debrief USAID officials, if requested.

5. Anticipated Contacts in Country:

i. Mr. Oliver Hazemba, MSH/RPM Plus, Lusaka
ii. Professor C. Chintu (AWG and ZNFC chairperson), University Teaching Hospital, Lusaka and other AWG and ZNFC members.
iii. Dr. S. Banda and other key university stakeholders for medical curriculum review.

iv. Dr. Ben U. Chirwa-Director General of the CBoH or his representative.
v. USAID Mission officials, if requested

6. Logistics:
Wonder Goredema will arrive in Lusaka on or about July 9, 2006 and depart on or about July 19, 2006. Accommodation will be at Pamodzi Hotel in Lusaka.

No further mission assistance is requested.

7. Funding:
The visit is supported by MSH/RPM Plus AMR SO5 core funding.

8. Action:
Please inform RPM Plus Program whether country clearance is granted for the activity to proceed as proposed. Please reply via e-mail to the attention of Anthony Boni, USAID/G/PHN/HN/HPSR, e-mail address: aboni@usaid.gov, tel. (202) 712-4789, fax (202) 216-3702. Please send carbon copies to Douglas Keene at dkeene@msh.org, Maria Miralles at mmiralles@msh.org, Michael Gabra at mgabra@msh.org, Mohan Joshi at mjoshi@msh.org, Oliver Hazemba at ohazemba@msh.org and Lindsay Gibbs at lgibbs@msh.org. We appreciate your cooperation.

Thank you.