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Situation Analysis Launch: *Antibiotic Use and Resistance in Tanzania*, July 20-21, Dar es Salaam

The Acting Chief Medical Officer of the Tanzanian Ministry of Health and Social Welfare, **Dr. M. A. Mohamed**, launched the

situation analysis and GARP recommendations to combat antibiotic resistance in Tanzania.

After the excitement of the

Kimatta), and strengthening infection prevention and control (IPC) (**Dr Ejiud Eliakimu**). Morning discussions focused mainly on

GARP-Tanzania *Situation Analysis: Antibiotic Use and Resistance* on July 21st, at a meeting held at the Ministry of Health and Social Welfare headquarters in Dar es Salaam. A wide range of stakeholders from the public and private sectors, the human and animal health worlds, and all relevant disciplines joined the



GARP-Tanzania working group members and stakeholders at the launch

GARP-Tanzania working group. The event, presided over by the working group chairman, **Professor Said Aboud** and vice chairman, **Professor Robinson Mdegela**, was covered by local television and radio and made the evening news. Prior to the launch, Professor Aboud opened the session by highlighting the results of the

official launch, serious consideration was given to improving microbiology lab capacity and the work of the National Health Laboratories (**Dr. Fausta Masha**), the role of the Tanzanian Food and Drug Administration in controlling antibiotic resistance (**Ms. Mary Masanja**), access to quality antibiotics (**Dr Suleiman**

antibiotics and human health, followed by an afternoon focusing on animal health and antibiotics. The topics overlap considerably — e.g., regulation and laboratory contributions to control—while some are specific to humans or animals—e.g., how to rationalize antibiotic use in the pastoralist community.

On the previous day, July 20th, the GARP-Tanzania working group met to review the situation analysis and to talk about what comes next. **Professor Said Aboud**, working group chairman, reminded everyone of the key findings and recommendations of the report, after which members

GARP-Tanzania Situation Analysis Launch (continued) from page 1)

of the group spoke on specific topics. Equal time was given to human and animal health. A few highlights:

authorized to prescribe, including nurses, attendants, and even hospital cleaners.

Dr. Shimwela struck a resonant

which people eat. One Health also takes in the broader environment, so the environmental fate of antibiotics is an added concern.



GARP-Tanzania Chair, Professor Said Aboud, Acting Chief Medical Officer, Dr. M. A. Mohamed, and Vice-Chair, Professor Robinson Mdegela at the launch

Professor Stephen Mshana, a working group member from Catholic University of Health and Allied Sciences, has been studying extended-spectrum beta lactamase (ESBL) producing bacteria, which are some of the most antibiotic-resistant organisms. They are difficult and expensive to treat. What distinguishes Professor Mshana's work is that he has studied ESBLs in hospitals and in the community, tracking strains using PCR. He has looked at ESBLs in newborns and their mothers, finding that they acquire ESBL producing commensal bacteria, not from their mothers, but presumably from the hospital. He has looked for (and found) ESBL-producing bacteria in wild fish.

Dr. Meshack Shimwela described establishing an IPC program in Amana, a regional public referral hospital in Dar es Salaam. The process began in 2010 and is a model of best practices. Because of changes made to prescription procedures, polypharmacy has been cut by 50 percent. These changes involved something as seemingly simple as requiring prescribers to use forms with their name printed on top, so the source of the prescription was clear. Previously, prescriptions were traced to many people not

chord when he talked about the neglect of infectious disease threats from the hospital mortuary. Walk into many (perhaps most) hospital mortuaries, and you'll see ungloned and otherwise unprotected workers handling corpses who succumbed to all the serious infections present in the hospital. The patients may have died, but the bacteria are thriving. **Dr. Khadija Msami** also presented on IPC programs.

The animal health specialists—**Professor Mdegela** and **Drs. Pastory Dulla, Abdul Katakweba, Hezron Nonga**—reviewed the challenges of rational antibiotic use in animals with a severely constrained veterinarian supply, most of whom practice in the urban areas and almost none in the remote areas where food animals are raised. Dr. Abdu Hayghaimo talked about the great value of animal vaccines and some of the practical difficulties that farmers have in obtaining them.

Professor Mdegela, a co-leader of the One Health approach in Tanzania, explained that this is not just an appealing concept, but has very practical implications, particularly for antibiotics. People and animals share pathogens (and resistance elements, even if the pathogens are different) and use the same antibiotics as animals,

Other working group members talked about the antibiotic supply chain (both human and animal), what the National Health Laboratory has been doing in relation to antibiotic resistance surveillance, the role of pharmacists and IPC.

The launch was an auspicious occasion for GARP-Tanzania, an opportunity to present the full picture of what is known about antibiotic use, access, and resistance to many important government and non-governmental parties, and to light the way for a fully collaborative approach to a national strategic plan for the appropriate and improved management of antibiotics.

GARP members participate in WHO Expert's Meeting to promote responsible use of antimicrobials and combat antimicrobial resistance in the African Region

From May 6th to 8th, the WHO Regional Office for Africa called a Consultative Expert's Meeting in Brazzaville, Congo to discuss means of combating antimicrobial resistance. GARP members from Kenya, Tanzania and South Africa attended. The meeting was a prelude to the World Health Assembly, where the Global Action Plan on Antimicrobial Resistance was endorsed, calling on all countries to develop and implement national action plans within 2 years.

WHO tasked participating experts with identifying a set of priority interventions to guide countries in the region in developing and updating their national plans and stimulating inter-country collaboration for sharing information and experiences, taking on AMR as a collective and regional health threat. Forty experts from 17 countries participated.

Situation Analysis Launch: *Antibiotic Use and Resistance in Mozambique*, July 30th, Maputo

On July 30th, GARP-Mozambique convened a stakeholder meeting to launch their situation analysis at the Indy Congress Hotel, Maputo. The Deputy Minister of Health, Dr. Mouzinho Saide, presided over the meeting. Speakers included Dr. Mohsin Sidat, CEO of the Manhiça Foundation, Dr. Fernando

a central lab for research and a focal point to spearhead these efforts.

Dr. Ana Fernandez, WHO, provided an overview of the WHO report on antimicrobial resistance with a focus on Africa. She also reviewed the recent WHA action plan on antimicrobial resistance

relatively few studies that have been completed. Dr. Sigaúque also highlighted the lack of access to antibiotics, particularly in rural areas. Barriers include weak supply chains, stock outs, and difficulties estimating need.

The recommendations of the GARP-Mozambique working group were introduced by **Dr. Esperança Sevene**. The main recommendation is the development and implementation of a national strategic plan for antibiotic resistance, in cooperation with the Ministry of Health and other stakeholders. Immediate priorities for GARP-Mozambique alongside the creation of this plan include improving infection prevention and control in hospitals and collecting better data on antibiotic use in hospitals, communities, and animals.

Deputy Minister Dr. Mouzinho Saide closed the ceremony, with assistance from the **Manhiça Health Research Center Choir**, which performed several pieces, including a song about antibiotic resistance composed expressly for the occasion. He congratulated GARP-Mozambique on their important contribution, and stated that the situation analysis would serve as an important tool in designing antibiotic resistance strategies, which the report clearly demonstrated were necessary. He expressed the Ministry's commitment to work with a wide



Left to right: Molly Miller-Petrie, CDDEP, Betuel Sigaúque, GARP-Mozambique, Esperança Sevene, GARP Mozambique, Mouzinho Saide, Deputy Minister of Health, Dr. Nazira Abdula, Minister of Health, Ramanan Laxminarayan, CDDEP, Hellen Gelband, CDDEP, and Tanea Sieoe, Department of Pharmaceuticals

Rodrigues, Ministry of Agriculture, Dr. Ana Rodriguez, World Health Organization, Dr. Ramanan Laxminarayan, Director of CDDEP, and Dr. Betuel Sigaúque and Dr. Esperança Sevene, President and Vice-President of GARP and lead authors of the report, on behalf of the entire working group.

Prior to the launch, the GARP Working Group and CDDEP staff met with the **Minister of Health, Dr. Nazira Abdula**, and Deputy Minister Dr. Saide, to discuss the next steps for Mozambique to develop a national plan for antibiotic resistance, to be drafted in cooperation with the Ministry, the Working Group, and other stakeholders.

From the Ministry of Agriculture, **Dr. Fernando Rodrigues** discussed the international agreements in place to govern the use of antibiotics in animals. In Mozambique, the Ministry is currently revising regulations related to medications and products for animal health, creating a national plan for the inspection of the sales of these products, creating

and discussed next steps, including WHO support for the creation of national surveillance systems and national strategic plans.

CDDEP Director **Dr. Ramanan Laxminarayan** noted that antibiotics are not a substitute for public health, and that by improving vaccination, sanitation, and infection control in hospitals you can reduce the need for antibiotics. Increasing incomes and demand for animal protein worldwide are driving increasing antibiotic use in humans and animals, particularly in developing countries that are transitioning to more intensive farming systems.

Dr. Betuel Sigaúque presented findings from the GARP-Mozambique situation analysis: *Antibiotic Use and Resistance in Mozambique*. He emphasized the lack of national data available on antibiotic use in humans and animals, particularly in communities, where the majority of use takes place. Resistance to commonly used antibiotics is high and increasing, as reported in the



"Say no to the abuse of antibiotics"

range of partners to develop and implement appropriate policies to maintain the effectiveness of antibiotics in Mozambique.

With this launch, which included over 40 stakeholders, the GARP Working Group is well positioned to move the effort to confront antibiotic resistance forward, with the support of the Ministry of Health, Agriculture, and other collaborators.

Global Antibiotic News

Country Highlights:

- GARP-Nepal has released their full situation analysis, which is now available on the CDDEP website. GARP-Nepal Principal Investigator Dr. Sameer Mani Dixit spoke at a World Health Day celebration on April 15th in Kathmandu, on the "Use of antibiotics in food animals: a concern of food safety."
- GARP-Kenya chair Sam Kariuki published a paper in *Vaccine* on antibiotic resistance in invasive *Salmonella* disease. GARP-Kenya also shared antibiotic resistance data collected from a private hospital with CDDEP's Global ResistanceMap project.
- GARP-South Africa is in the process of developing regional follow-up activities related to the WHO Expert's Committee meeting in Brazzaville. They also shared national level antibiotic resistance data with Global ResistanceMap.
- GARP Vietnam shared national level antibiotic resistance data collected by VINARES with Global ResistanceMap.
- GARP-Uganda has finalized their situation analysis and a policy brief on antibiotic use and resistance in Uganda and will launch the report shortly.

New Antibiotic Resistance Media and Publications

- CDDEP Director Dr. Ramanan Laxminarayan was featured on the National Public Radio (NPR) program and podcast, TED Radio Hour, where he discussed strategies to maintain antibiotic effectiveness. The talk is available on the CDDEP website.
- The *Journal of Law, Medicine, and Ethics* published a special supplement issue on antibiotic resistance, guest edited by Steven J. Hoffman and Kevin Outterson, available online. The issue, which includes a dozen articles, focuses on how global collective action can address the growing public health problem of antimicrobial resistance—and in particular, the need for an international agreement for antibiotic policy.
- CDDEP Director Laxminarayan was a speaker at the Aspen Ideas Festival Spotlight Health session, and was featured on a panel entitled "The Looming Antibiotic Crisis." A short clip of Laxminarayan, focusing on antibiotic resistance as a societal problem, is available online, as is video of the full panel session.

GARP in the News

In May, Dr. Mukti Narayan Shrestha, GARP-Nepal working group member, became the first veterinarian from Asia to be honored with the WSAVA Global Merit Award. The award recognizes veterinarians for meritorious service to the profession. Dr. Shrestha received the award at the opening of the 40th WSAVA World Veterinary Congress, held in Bangkok in May.

Dr. Shrestha is the President of the Veterinary Practitioners Association of Nepal and an adjunct professor at the Himalayan College of Agricultural Sciences and Technologies. He established the first veterinary clinic in Nepal, and previously served in the Ministry of Population and Environment and the Ministry of Agriculture and Cooperatives.

New posts on the CDDEP blog

- The 21st Century Cures Act Needs a Cure Itself (July 23)
- Preface to GARP-Tanzania Situation Analysis and Recommendations on Antibiotic Resistance (June 26)
- CDDEP joins White House Forum on Antibiotic Stewardship, launches Interactive Antibiotic Timeline (June 2)

Upcoming publications and events

CDDEP will be releasing the *State of the World's Antibiotics* and the newly updated Global ResistanceMap this September. Both will be available on the CDDEP website.

Antibiotic Awareness week is approaching: November 16-22, 2015. Will you be planning an event? Let us know! (More to come from us on this.)

Send us your feedback!

We welcome your comments on and additions to each newsletter. Please send any content or questions to Molly Miller-Petrie at millerpetrie@cddep.org

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