



Symposium

23 NOVEMBER 2022
CAPE TOWN, SOUTH AFRICA

Tackling AMR:

How implementation
research is vital in a One
Health approach



Enabling research by sharing knowledge





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Symposium Overview

Tackling Anti-Microbial Resistance: How implementation research is vital in a One Health approach

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TGHN Conference:

The Global Health Network (TGHN) celebrates 10 years of mobilising research skills, know-how and methods to foster capable teams that generate new treatment strategies and prevention mechanisms that reduce the burden of disease within communities. The antimicrobial resistance (AMR) symposium is one of many preceding the main event which is a TGHN conference. The conference runs on 24 and 25 November 2022, with several symposia taking place on November 22 and 23 2022.

The aim of this conference is to present research findings, and methods and processes, so we can learn from these to better enable research in every healthcare setting. An embedded theme of this conference is exploring equity in where research happens, who leads and who benefits. The purpose is to learn from each other and share excellence in approaches, processes, and methods. This also includes ensuring there is equitable access, representation, and participation at this conference. This conference will be a fantastic opportunity to learn from researchers working across different disease areas, geographies, and disciplines. The conference is organised on a not-for-profit basis. Every delegate who can pay to attend will be supporting a delegate who would otherwise not be able to attend through the Scholarship Award.



AMR Symposium Synopsis:

Antimicrobial Resistance (AMR) is an ongoing silent pandemic, (1) exacerbated in part by the ongoing COVID-19 pandemic. (2,3) The recently published global burden of bacterial antimicrobial resistance (4) published in *The Lancet* in January 2022, estimates that based on available evidence in 2019, over 4.95 million deaths globally were associated with drug-resistant infections and 1.27 million deaths were directly caused by drug-resistant organisms. While bacterial AMR was found to be a problem in all regions; the global burden of disease estimates show that the highest burden of AMR is in low and middle-income countries, particularly in the Sub-Saharan African region. (4) The review highlights the paucity of high-quality data in low-income settings and the importance of targeted AMR policies. (4) Specifically the review underscores the need to address various barriers to improved AMR data quality and surveillance efforts, expansion of stewardship initiatives, and barriers to access to new therapeutics and vaccines as well as the need for research and development.

A holistic approach is needed to tackle AMR and eliminate the threat of AMR. (5) Using a one health whole of society approach similar to other pandemics like COVID-19 has been advocated as our best line of defence. The symposium aims to bring together practitioners, researchers, funders and policymakers. Bearing in mind that, while research and development (R&D) are key, new drugs and new vaccines are not produced fast enough to cope with the growing threat of AMR. Additionally, LMICs are less likely to be at the cusp of R&D due in part to a lack of facilities and while many initiatives are addressing AMR there is no systematic data collection. This symposium will therefore focus on implementation and operational research and will seek to drive the embedding of research within systems to improve data, implementation and translation to policy. The objective would be to call for further investment of funding for operational and implementation research as a vital component in tackling AMR with a One Health approach.



The focal areas for the symposium will be the three core one health areas i.e. human health, animal health and environmental health. The symposium will provide a platform for open discussion with an overview of AMR in the one health context, experiences from the field and to identify what more needs to be done, validate or reality check one health priority areas and highlight how these can be addressed and implemented in the field allowing for translation into policy using a bottom-top approach. Additionally, the symposium would provide a platform to discuss how best to define a One Health research question and how to support genuine interdisciplinary research in this area. Two main outputs from the symposium will be a position paper and working groups to foster both north-south and south-south research collaborations to address AMR one health priorities.



Agenda

The AMR symposium will take place in-person. It will have three components. The first session will present a view from the top which features expert speakers in the field of AMR. These speakers will provide an overview of AMR in the one health context highlighting the value of implementation research in the one health approach to AMR control and elimination.

The next session will have voices from the frontline where we hear from experts and practitioners in the field presenting experiences, best practices, and lessons learned in practice and research. This session will have key contributions from researchers across the global south.

The third component will involve a keynote presentation on one health AMR research priorities. This will be followed by discussion in breakout sessions to validate and reality check these priority areas, highlighting how these can be addressed and implemented in the field allowing for translation into policy using a bottom-top approach. Lightning presentations and posters to allow other voices from the frontline to present their implementation or operational research work.



8:00 – 9:15	<ul style="list-style-type: none"> • Registration • Tea/coffee • Setting up lightning presentations • Networking
9:15 – 9:30	<ul style="list-style-type: none"> • Welcome remarks - Trudie Lang (Director The Global Health Network)
9:30 – 11:00	<p> Speaker session 1: View from the top Chair – Marc Mendelson (UCT, South Africa)</p> <ul style="list-style-type: none"> • AMR and importance of implementation research: experience from SORT IT Rony Zachariah (TDR, Switzerland) • Implementation research in AMR with a One Health perspective: from definitions to frameworks for implementation - Sabiha Essack (ICARS, South Africa) • Past and future research priorities towards One Health AMR Laura Marin (JPIAMR, Sweden) • A One Health approach to AMR: have we got our priorities right? Marc Mendelson (UCT, South Africa)
11:00 -11:30	<ul style="list-style-type: none"> • Tea break • Networking
11:30 – 13:00	<p> Speaker session 2: Voices from the frontline Chair - Rob Terry (TDR, Switzerland)</p> <ul style="list-style-type: none"> • One Health AMR policy implementation: lessons learned - Mirfin Mpundu (ReAct Africa, Zambia) • Use of Access, Watch, and Reserve (AWaRe): lessons learned - Mike Sharland (St George’s University London) • Operational research improves surveillance of antibiotic use in livestock in Sierra Leone Leno Amara (TDR AMR SORT-IT Fellow - Sierra Leone) • Improving Antimicrobial Resistance Surveillance in Nepal - Jyoti Acharya (TDR AMR SORT-IT Fellow - Nepal) • A sewage treatment plant in Ghana eliminates over 99% of bacteria from effluent discharged into the environment – Lady Adomako (TDR AMR SORT-IT Fellow - Ghana) • Use of Access, Watch, and Reserve (AWaRe), lessons learned - Mike Sharland (St George’s University London)



13:00 – 14:00	<ul style="list-style-type: none"> • Lunch break • Networking • Lightning presentations
14:00 – 16:00	 Keynote and breakout session: Tine Rikke Jørgensen (WHO HQ, Switzerland) One Health Priority Research Agenda
	<p>14:30 – 16:00</p>  Breakout activities: Wider stakeholder consultation for One Health Priority Research Agenda
16:00 – 16:20	<ul style="list-style-type: none"> • Tea break • Networking
16:20 – 16:50	<ul style="list-style-type: none"> • Feedback and discussions
16:50 – 17:00	<ul style="list-style-type: none"> • Closing remarks and next steps (Africa CDC) – Yewande Alimi

Speakers



**LAURA
MARIN**

JPIAMR

Laura Marin is the Head of the Executive office Secretariat of the Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) hosted by the Swedish Research Council. JPIAMR, is an international member states platform that coordinates national funding and supports collaborative research action on antimicrobial resistance. Previously she was responsible for Science Policy and Member Relations at the European Science Foundation. Earlier on she was also team leader of the European Science Open Forum in 2008 in Barcelona (ESOF2008) and Director of Operations at the Catalan Foundation for Research and Innovation. She has several years of experience in Brussels and Germany managing research and innovation projects and facilitating numerous fora on science policy and governance issues.



**SABIHA
ESSACK**

UNIVERSITY
OF KWAZULU-NATAL,
ICARS

Sabiha Essack is the South African Research Chair (SARChI) in Antibiotic Resistance and One Health and Professor in Pharmaceutical Sciences at the University of KwaZulu-Natal (UKZN). She is also the Vice Chair of the WHO Strategic and Technical Advisory Group for Antimicrobial Resistance (STAG-AMR), Senior Implementation Research Advisor at the International Centre for Antimicrobial Resistance Solutions (ICARS) in Denmark, member of the Scientific Advisory Board of the Joint Programming Initiative on AMR (JPIAMR) and member of the International Pharmacy Federation (FIP) AMR Commission. Professor Essack is chairperson of the Global Respiratory Infection Partnership (GRIP), she serves on the Advisory Board of the Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator (CARB-X), the Fleming Fund Expert Advisory Group and is a member of the Wellcome Trust Surveillance and Epidemiology of Drug Resistant Infections Consortium (SEDRIC). Her research focuses on the molecular epidemiology of AMR using next generation sequencing and bioinformatics as well as One Health systems strengthening in the context of AMR.



**RONY
ZACHARIAH**

TDR

Rony Zachariah is a Scientist for Research for Implementation at the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) and is the Coordinator of TDR's Structured Operational Research and Training Initiative (SORT IT). He holds a PhD in Operational Research and is one of the pioneers involved with the development of Operational research in health as a science. He has over 30 years of extensive professional experience working in various medical and coordination capacities in Nigeria, Chad, Kenya, Somalia, Liberia, Malawi, Sri-Lanka, Afghanistan, Tajikistan, Rwanda, Lebanon, and in Europe. He previously served as the Director of Operations research at Médecins Sans Frontières (MSF) and as strategic advisor on operations to the MSF Director General in Brussels. He has also contributed as Consultant to European Association for Development and Health.



**ROBERT
TERRY**

TDR

Robert Terry is the Manager of Research Policy at the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR), where he is responsible for knowledge management, open access, data sharing and ensuring evidence is translated into policy and practice. Robert is a senior strategic and project manager with more than 25 years' experience in strategy development and implementation. He holds a PhD in Global Health Research Policy and has previously worked at the Royal Society (the UK academy of science) where he ran the international research exchange programme and the Wellcome Trust where he was senior policy advisor leading the development of the Wellcome Trust's first open access policy and the establishment of Europe PubMed Central. He has worked in various positions at WHO and has served as a consultant for Oxfam, United Nations Association International Service and UK Department For International Development in several African and Asian countries.



**MIRFIN
MPUNDU**

REACT AFRICA

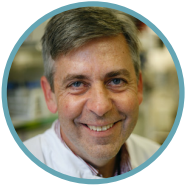
Mirfin Mpundu is the Director of ReAct Africa and a member of ReAct's Global leadership team. He is also the Partnerships & Stakeholder Engagement Lead for the International Centre for Antimicrobial Resistance Solutions (ICARS) responsible for Africa. At ReAct Africa he is responsible for strategic leadership in implementing ReAct's strategic plan and activities in Africa, building partnerships with other stakeholders including governments, supporting translation of evidence into policies, contributing to regional and global governance and catalysing action to address AMR. Additionally, he provides technical support to WHO, FAO, OIE, Africa CDC and Southern Africa Development Community (SADC) on AMR strategies and policies. He holds a doctorate in public health (DrPH) and has over 20 years expertise in global health. He has successfully supported several African countries to develop their AMR National Plans. He sits on several boards and is Co-chair for the External Advisory Board of the Newton AMR Drug Discovery Programme and a Member of the Expert Committee for the 2020 Antimicrobial Resistance Benchmark.



**MARC
MENDELSON**

UNIVERSITY
OF CAPE TOWN

Marc Mendelson is Professor of Infectious Diseases and Head of the Division of Infectious Diseases & HIV Medicine at Groote Schuur Hospital, University of Cape Town (UCT). He is Chair of the Ministerial Advisory Committee on Antimicrobial Resistance, and founding Chair of the South African Antibiotic Stewardship Programme. His involvement with international policy related to antimicrobial resistance includes work with the Global Health Security Agenda (GHSA), the World Health Organization (WHO), the Global Antibiotic Research & Development Partnership (GARDP), the World Economic Forum (WEF) and Wellcome Trust. He is a Member of the Expert Committee for the 2020 Antimicrobial Resistance Benchmark. He is past-president of the Federation of Infectious Diseases Societies of Southern Africa as well as the International Society for Infectious Diseases. His focus is on national and international policy around access, appropriate use and innovation to combat antimicrobial resistance.



**MIKE
SHARLAND**

ST GEORGES'
UNIVERSITY

Mike Sharland is a leading expert in antimicrobial prescribing, resistance and healthcare associated infection in children. He is a Professor and Consultant in paediatric infectious diseases at St George's University Hospitals NHS Foundation Trust, UK. He is the lead clinical advisor for the neonatal and paediatric programme of the Global Antibiotic Research and Development Partnership (GARDP) and Vice-Chair and AMR lead of the Penta Foundation, a global Paediatric Infectious Diseases research network. He is the chief investigator for the Antimicrobial Resistance, Prescribing, and Consumption Data to Inform Country Antibiotic Guidance and Local Action (ADILA) project. He previously Chaired the UK Department of Health's Expert Advisory Committee of Antimicrobial Prescribing, Resistance and Healthcare Associated Infection (APRHA). He has been an advisor for the WHO for many years. He is member of the Expert Committee on the Selection and Use of Essential Medicines and Chair of the Antibiotic Working Group of the EML/EMLc, assisting with the development of the Access/Watch/Reserve (AWaRE) grouping of antibiotics and WHO global targets on use.



**TINE RIKKE
JØRGENSEN**

WHO, HQ

Tine Rikke Jørgensen is a Consultant at the AMR Global Coordination Department at the WHO, HQ in Geneva and serves as the Senior Scientific Advisor at the International Centre for Antimicrobial Resistance Solutions (ICARS). A biologist with post-graduate training in Global Public Health and Health Economics, she has held various global positions in the public and private sector, specialized in access to medicines, health economics and policy as well as evaluation frameworks for introduction of new technologies. She has extensive experience in global public health leading governmental affairs, health advocacy and public affairs in vaccines and infectious diseases in international and national markets having worked at country level in China, Japan, US, Canada, Europe, Russia, Tanzania and Zanzibar, Kenya, Ethiopia, Uganda, Nepal, Bangladesh, India, Indonesia, Balkan region including Kosovo, Turkey, and the Russian Federation.



TRUDIE LANG

DIRECTOR
THE GLOBAL
HEALTH NETWORK

Trudie Lang is the Director of The Global Health Network (TGHN) and the Global Research Director for Health Data Research Global. She is a Professor of Global Health Research and a Senior Research Scientist in Tropical Medicine at the University of Oxford with over 20 years' experience in running clinical trials, including trials in the developing world, for the pharmaceutical industry, the World Health Organisation and in academia. Trudie focuses on combating diseases of poverty through the generation of high-quality evidence. She has worked in industry, academia and UN organisations. With her team and partners, she works to drive better health outcomes in vulnerable communities by enabling local leadership and ground-up implementation of high-quality health research studies.



JYOTI ACHARYA

NATIONAL PUBLIC
HEALTH
LABORATORY,
NEPAL

Jyoti Acharya is educated to graduate level in Medical Laboratory Technology and Medical Microbiology and has worked for over 20 years for the Government of Nepal at the Sukraraj tropical and infectious disease hospital and later at National Public Health Laboratory. She is currently head of the Department of Microbiology and the Chief Medical Technologist at the National Public Health Laboratory in Nepal and is pursuing a PhD in "Characterization of AMR in Escherichia coli in Nepal" at Tribhuvan University of Nepal. She is a Member - secretary of the Human Health AMR Surveillance Technical Working group and a TDR AMR SORT-IT fellow.



LADY ASANTEWAH BOAMAH ADOMAKO

CSIR WATER
RESEARCH
INSTITUTE,
GHANA

Lady Asantewah Boamah Adomako is a microbiologist at the CSIR Water Research Institute with over 10 years' experience. She holds an M.Phil. in Environmental Science from the University of Ghana, Legon and is a member of the International Society of Environmental Epidemiologists and the Organization for Women in Science in the Developing World. Her research interests include antimicrobial resistance in the environment, surveillance of infectious pathogens in the wastewater and drinking water. With strong technical expertise in the areas of water, sanitation, environmental health, quantitative and qualitative data collection, she has been a team member in many projects including the Environmental Surveillance for infectious pathogens, the WHO Integrated Tricycle project on global surveillance on extended spectrum beta-lactamases producing *Escherichia coli* in humans, animals and the SaniPath project funded by Bill and Melinda Gates. Lady has a passion for teaching, thus she has mentored and trained many students and interns at the CSIR Water Research Institute and the Brighter Investment Mentorship Programme, Ghana. After successfully completing the WHO/TDR Africa Regional Structured Operational Research Initiative (SORT IT) course on building sustainable operational research capacity to tackle antimicrobial resistance, she also serves as a junior mentor for the Ghana SORT IT course.



LENO AMARA

MINISTRY
OF AGRICULTURE,
SIERRA LEONE

Leno Amara is a Veterinarian and currently serves as the Rabies and IPC focal point at the Livestock and Veterinary services Division for the Ministry of Agriculture in Sierra Leone, where he is responsible for Data Management and sharing at the one health platform. Previously he was the Data Manager at the Food and Agriculture Organization for the United Nation (FAO) under the Emergency Center for Transboundary Animal Diseases (ECTAD), and served as the Interim Country Coordinator for the PREDICT/EHP project in Guinea-Conakry as well as an animal health consultant for Sierra Leone from 2015-2017. He holds a DVM in Veterinary Medicine, with eight years of experience in Veterinary Medicine. He is trained in Field epidemiology at intermediate level and is involved in Animal AMR planning activities at the Ministry where he also serves as the officer in charge for import and export of veterinary drugs including antimicrobials.



YEWANDE ALIMI

AMR PROGRAM
COORDINATOR,
AFRICA CDC

Yewande Alimi is the Antimicrobial Resistance (AMR) Program Coordinator at Africa Centres for Disease Control and Prevention, and co-lead for the Africa Union Task force on AMR. She co-chairs the Infection Prevention and Control (IPC) Section for COVID-19 response across the continent and provides technical IPC support to the Africa Task Force for Coronavirus. Dr Yewande is a trained Veterinary Surgeon and holds a Masters degree in Public Health (International Health) from the University of Nottingham in the United Kingdom. Drawing on a range of experience that includes veterinary medicine, public health policy and research, she currently leads the implementation of the Africa CDC Framework for AMR Control in Africa Union member states. She also leads on the One Health activities, development and implementation of one health programs within Africa CDC, across the African Union organizations and member states. Before joining the Africa CDC, Yewande practised as a Veterinary Surgeon in Nigeria. She worked as a research analyst at the Ludwig Boltzmann Institute of Health Technology Assessment, Austria and CompanDX, United Kingdom. She serves on several advisory boards and groups across the continent and globally. She is the One Health Technical Advisor for Global Emerging Pathogens Treatment Consortium. She is a member of the Scientific Task Force to Prevent Pandemics at the Source for the Harvard Global Health Institute (HGHI) and the Harvard T.H. Chan School of Public Health Center.

Are you a researcher working in AMR? Would you like to collaborate with other researchers across the globe or become a member of the AMR community of practice? Then join our community: <https://amr.tghn.org/get-involved/>



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