

**Global Health Strategy Group: AMR**  
**Monday 20<sup>th</sup> September 2021**  
**MEETING SUMMARY/MINUTES**

**Opening and welcome remarks:** *Christiane Dolecek*, Associate professor, Centre for Tropical Medicine and Global Health, University of Oxford and Mahidol-Oxford Tropical Medicine Research Unit, Scientific Lead and Co-PI on the GRAM study.

**AMR Chairs**

- **Christiane Dolecek**
- **Andrew Jack**, Financial Times Global education editor and coordinator of several health projects including the future of antibiotics.
  
- The Chair introduced a brief framework for the meeting, which was followed by a series of brief presentations
  
- Introduction of Oxford in Berlin Global Health Scholars

**Speakers**

- Anthropology of AMR and introduction to the Antimicrobial Resistance Centre of the LSHTM by Prof Clare Chandler (Director of the Centre)
- AMR Accountability Tracker by Humayra Bashir and Mohamed Bella Jalloh (Oxford in Berlin Global Health Scholars)
- AMR Surveillance in Kenya Hospitals using a clinical information network by Dr Sam Akech (KEMRI-Wellcome Trust Research Programme)
- AI4Global Health challenge by Dr Matthias Groeschel (ITU/WHO Focus Group on AI4H and Harvard)

**Anthropology of AMR**

- **Anthropology of antibiotic use**  
<https://www.lshtm.ac.uk/research/centres-projects-groups/anthropology-antimicrobial-resistance>
- **Use of Ethnography** – Immersive observations. Not only conducting interviews and observing what happens in practice, but also on tracing stories and tracing histories, which requires a great deal of archival material, looking at media these days is a significant part of it, looking at policies and programmes, and attempting to truly understand them.
- **Approach:** Follows antibiotics, care and AMR science/policy across regions
- Ethnography of discourses –making metaphors, imaginaries and histories apparent
- For an accessible review of ethnographic research on AMR, see **Tompson, Manderson & Chandler (2021) 'Understanding antibiotic use'** in JAC-AMR | JAC-Antimicrobial Resistance
- Threats of AMR stabilised as a political project
- Current accounts of antimicrobial resistance: stabilisation, individualisation and antibiotics as integral to so many parts of our lives as an infrastructure that enables the

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political and economic lives we live globally and globalisation

[<https://www.nature.com/articles/s41599-019-0263-4>]

- Anthropologists can explore why, for example, antibiotics are utilised differently in various parts of the world – **The 'Drug Bag' method: lessons from anthropological studies of antibiotic use in Africa and South-East Asia**  
[<https://pubmed.ncbi.nlm.nih.gov/31339473/>]
- Antibiotics in practices, structures and networks
  - **STRUCTURES:** Antibiotic use emergent of economic and political priorities - such as productivity – reflected in quick fixes to physical and social structures (e.g., absence of good hygiene compensated by more use of antibiotics)
  - **PRACTICES:** Antibiotic use enacted by individuals whose decisions are shaped by biological, social, political and economic contexts. Medicines (antibiotics) are viewed as the endpoint of a consultation, as opposed to care, and we may wish to consider not only alternative definitions of care, but also the ways in which antibiotics are used to enable productivity; for example, people working in the informal sector on day wages may rely on antibiotics because they cannot afford sick leave, suggesting that antibiotics are used to enable productivity. Also, antibiotics are utilised to tackle inequality, particularly among children, by reducing their disease burden and so lifting them out of poverty, rather than addressing other structural issues such as housing conditions.
  - **NETWORKS:** Antibiotic use written into the flows of materials, information, algorithms and imperatives that make up global health and development.
- On the idea of antibiotics use in agriculture: *“And so, one of the things that I really wanted at the start of project was thinking if I'm a farmer, I don't wake up in the morning and think I know what I'll do today, I'll waste some antibiotics. So, it was very important for me to understand **why farmers were using antibiotics in the way that they are.**”* This underscores the value of immersive ethnography.

### **AMR Accountability Tracker**

- Exploring the idea of an **'AMR accountability tracker'** as an interactive tool to track and benchmark global progress against AMR
- Presentation of scoping exercise done by Global Health Scholars **Humayra Bashir, Mohamed Bella.**
- See link to google doc to share additional comments and ideas: <https://bit.ly/3AQo9iF>

### **AMR Surveillance in Kenya Hospitals**

- Global AMR Surveillance System (GLASS) was launched in 2015 and Kenya has been a member since 2016
- However, Kenya has not reported AMR data reported to GLASS in 2017, 2018, 2019
- Clinical Information Network (CIN) established in 2013 as collaboration between MoH, KPA, KEMRI-Wellcome Trust Research Programme, and participating hospitals
- CIN aims to support improvement in collection and analysis of paediatric and neonatal inpatient information to support audit, service evaluation, quality improvement, & research

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- The CINAMR (Clinical Information Network-Antimicrobial Resistance) Project: A pilot microbial surveillance using hospitals linked to regional laboratories in Kenya
- In 2 hospitals with existing, but inconsistent, microbiology services we will support active surveillance in both paediatric and medical wards to detect both community and hospital-acquired infections in a multinational surveillance project referred to as **ACORN 2-A Clinically Oriented Antimicrobial Resistance Surveillance Network**. The pilot phase was done in Asia and in the second phase it seeks to estimate the burden of AMR, advancing the development of LIMS, and explore question around diagnostic stewardship.
- Two hospitals supported to perform local microbiology for 24 months, with support from KEMRI-Wellcome in Kilifi
- Close collaboration and data sharing with the GRAM project in Oxford

#### **AI4Global Health challenge**

Motivation:

Hackathons to address problems relevant to Global Public Health

- Large global shortfall of quality healthcare coverage and health professionals
- Increasing availability of data and statistical models trained on these, plus other digital technologies (mobile apps) are gradually changing the landscape of health and biomedical research, but 'best solutions' can't just be based on performance in data-training exercises.
- Applying these tools to globally relevant health problems offers a way forward
  - Why organise another health challenge?
  - high opportunity cost to compete (hundreds of participants, established start-ups win)
  - 'rough', not always particularly rigorous, evaluation
  - No focus on implementation
    - Opaque and non-inclusive challenge topics
  - We can create a lot of momentum
  - But - taking a step back - how do we define the topics of a 'Global Health' Hackathon?
    - We want a transparent and inclusive approach to define topics (a.k.a. problem statements)
    - There exists no 'list' of problems in global public health where digital health / AI can be part of a solution
    - Focus first on a process to generate such list.

#### **Discussions (including ZOOM chats) centred around the following themes**

##### **AMR and governance**

- Pros/cons of country reporting.
- Careful consideration of 'accountability' as a framework - It implies the existence of a supranational issue about which countries should report. Countries that may perform less well on tracking could be those with the fewest resources - should these resources be directed to compiling and submitting metrics or to tackling health (including AMR) locally?

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- It would be very useful to develop a theory of change for the AMR accountability dashboard.
- The need for an **overview/mapping of past and current research on and funding of work on AMR**. To my knowledge, this does not currently exist. The **Global AMR R&D Hub only maps R&D of antimicrobials, not research or funding more broadly**.
- On fear, information and empowerment. ***“Fear about AMR can improve expectations for antibiotics but had the potential to backfire unless people were also given empowering information on how to successfully self-manage their symptoms without antibiotics.”***

[<https://link.springer.com/article/10.1186/s12916-020-01553-6>]

### One Health Approach

- Farmers purchasing antibiotics from the internet
- Climate or environmental impact of AMR. ***“Poultry would be becoming sick because of heat stress.”***
- Incentivising farmers for rational use of antibiotics

### Surveillance and Health Systems Strengthening

- CINAMR and ACORN-2 in Kenya – examples of building local laboratory capacities and intersectoral collaborations for strengthening AMR surveillance
- Echoed importance of data-sharing with GRAM project
- **“Health personnel don’t feel happy or confident to withdraw antibiotics because of the, you know, structural deficits, you know deficits in sanitation, water quality, and so on.”**
- **Access to antibiotics - affordability, availability. “Most of the antibiotic use we see in Kenyan hospitals is defined by structures that are usually beyond AMR projects. Doctors ask, ‘What ABs are available?’; ‘When will I see a patient again?’; ‘What can the patient afford?’. In the Kenyan environments I work in, these practical decisions are completely central. The idea that effective microbiology will fix things is a nonsense – you can’t find the patient once you get the result, if you did you wouldn’t have the drug they need and even it was available, they couldn’t afford it!”**

### AMR in the community

- Big gaps noted in AMR surveillance data in the community
- Informal markets of antibiotics in some regions SSA e.g., Sierra Leone
- Limited community data on AMR

### ACTIONS POINTS

- Create and circulate google doc across the AMR strategy groups for feedback and ideas
- Organise a meeting to explore further discussions on AMR in the community
- Finalise an AMR meeting report (expanding on minutes and meeting transcript) and circulate to the wider strategy group on AMR

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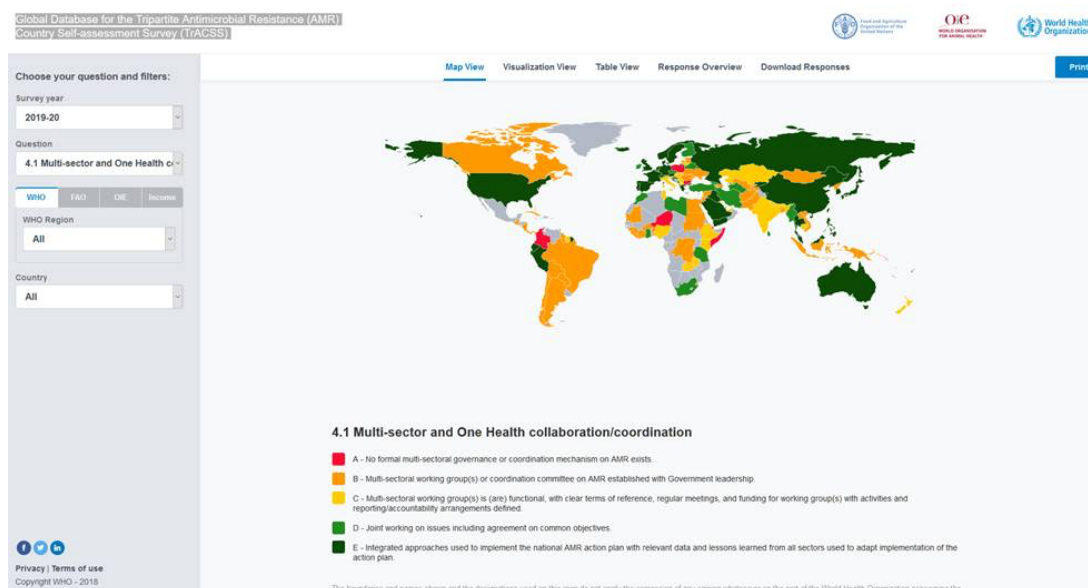
## FURTHER IDEAS AND RESOURCES SHARED BY AMR COLLEAGUES

### On AMR tracker:

Have broader indices and bundle visualisations that broadly fall into these 4-5 categories:

1. Reducing the incidence of infection (included in Objective 8 of the GAP)  
WASH generally (e.g., Attributable fraction of diarrhoea to inadequate water, sanitation and hygiene  
proportion of diarrhoea WASH in healthcare facilities, Vaccinations, etc
2. Theme of appropriateness: appropriate antibiotic use, surveillance of AMR, AMC, treatment guidelines, etc, appropriate facilities etc
3. R&D: Could link to global AMR R&D hub which is located in Berlin
4. AMR indicator organisms such as MRSA, Escherichia coli resistant to 3rd-generation cephalosporin antibiotics – include carbapenem resistance
5. Other info, include relevant data from Systematic Reviews etc; Sebastian Haller's suggestion on the 'living SR'

Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS): <https://amrcountryprogress.org/>



## RESOURCES SHARED BY MEMBERS

- WHO's M&E framework? <https://www.who.int/publications/i/item/monitoring-and-evaluation-of-the-global-action-plan-on-antimicrobial-resistance>
- The Global Leaders Group on AMR just published a 2-pager information note on financing of AMR and gaps, which may be of interest:

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[https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-gcp-tjs/financing-to-address-amr.pdf?sfvrsn=c982548e\\_10](https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-gcp-tjs/financing-to-address-amr.pdf?sfvrsn=c982548e_10)

- They also published an Information note on current surveillance of antimicrobial resistance and use and gaps: [https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-gcp-tjs/surveillance-of-antimicrobial-resistance-and-use-.pdf?sfvrsn=caa5a9a7\\_14](https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-gcp-tjs/surveillance-of-antimicrobial-resistance-and-use-.pdf?sfvrsn=caa5a9a7_14)
- Fear about AMR can improve expectations for antibiotics but had the potential to backfire unless people were also given empowering information on how to successfully self-manage their symptoms without antibiotics. <https://link.springer.com/article/10.1186/s12916-020-01553-6>;
- It may be worth connecting or at least checking where we are globally with AMR research or progress via this global governance output to see where we may fit or best contribute [<https://globalamrhub.org/>]
- Some forthcoming activities. E.g.:
- <https://www.lshtm.ac.uk/newsevents/events/economic-burden-antibiotic-resistance-global-resource-estimating-monetary-costs>
- Launch the Lancet/FT Commission on governing health futures, very focused as you know on AI/digital health in LMICs, on Oct 25 at the WHS in Berlin.

## **FUNDING OPPORTUNITIES**

- The Impact Initiative and Research Coordination (IRC) unit under the Global Coordination and Partnership of the WHO AMR division is looking for multidisciplinary university groups or other scientific institutions to support the development of a One Health Priority Research Agenda on Antimicrobial Resistance (AMR). The terms of reference include scientific and methodological support for the following elements 1) review of the grey literature and policy analysis of relevant materials for identifying research gaps and 2) qualitative analysis of an open call survey data that will form the basis for 3) the development of high priority research question that will be prioritized using the WHO guidance for development of research priorities (a modified Delphi method) and reporting of the above elements.
- [The Request for Proposals is published on the United Nations Global Market website: https://www.ungm.org/Public/Notice/146908](https://www.ungm.org/Public/Notice/146908)
- Note we need to submit an expression of interest by 11 October and application by 19 October.

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- Jenny proposes bringing RHUL and her partners in India and Kenya, we also propose Kew and LSHTM and all the group connected to this Global Health Strategy Group.

"Thus, we can also look at other social science research, including anthropology, that focuses on the structural...

When people say structural, they often think of buildings; however, structural also refers to all of these political and economic structures and arrangements that imply that certain people are more important than others, that certain things get done and others do not. And through this perspective, we may view antibiotics as an emergent property of much larger processes, regardless of whether someone decided or did not choose to use the drug."

CLARE CHANDLER

"IN TERMS OF THE PROJECT'S STATED INTENTION ON PAPER WHEN WE WERE GIVEN THE GRANT AND THE CALL FOR PROPOSALS THAT THE PROJECT IS RESPONDING TO. THAT IS NOT ALWAYS AS STRAIGHTFORWARD AS IT MAY BE. AND I THINK THAT WHEN YOU REFER TO THIS AS A THINK TANK ENVIRONMENT, THAT IS SOMETHING THAT THE THINK TANK ENVIRONMENT ENABLES. THAT IS, TO LOOK BEYOND THE VERY NARROW SILOS IN WHICH ACADEMIA CAN SOMETIMES FIND ITSELF IN ORDER TO GAIN A BETTER UNDERSTANDING OF THE BIGGER PICTURE."

JENNIFER COLE

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"I BELIEVE THAT ONE OF THE THINGS THAT THIS GROUP COULD DO QUITE EASILY IS TO ASK THE QUESTIONS AND HOW WOULD YOU EMBED THE TYPES OF ECONOMIC RESOURCES THAT WOULD BE REQUIRED, WHAT KIND OF CASE WOULD YOU HAVE TO MAKE TO CREATE A STORY THAT WOULD REQUIRE, YOU KNOW, DIVERTING FUNDS FROM ANOTHER SOURCE AND MAKING THE ECONOMIC CASE STAND BECAUSE WE CAN SAY WE WE REALLY NEED THESE DATA, BUT IF YOU'VE GOT A LIMITED AMOUNT OF MONEY..."

CLARE CHANDLER

"And, while we may be, I don't share everyone's optimism that we're winning the optics of the argument, because I don't believe we are. I believe that a large number of people obtain information via social media, by one platform or another. And they're also purchasing antibiotics outside of the normal health and vetting framework, and I believe it's critical to recognise the worldwide implications of that."

TIM WALSH

"I BELIEVE THAT ONE OF THE THINGS THAT THIS GROUP COULD DO QUITE EASILY IS TO ASK THE QUESTIONS AND HOW WOULD YOU EMBED THE TYPES OF ECONOMIC RESOURCES THAT WOULD BE REQUIRED, WHAT KIND OF CASE WOULD YOU HAVE TO MAKE TO CREATE A STORY THAT WOULD REQUIRE, YOU KNOW, DIVERTING FUNDS FROM ANOTHER SOURCE AND MAKING THE ECONOMIC CASE STAND BECAUSE WE CAN SAY WE WE REALLY NEED THESE DATA, BUT IF YOU'VE GOT A LIMITED AMOUNT OF MONEY..."

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