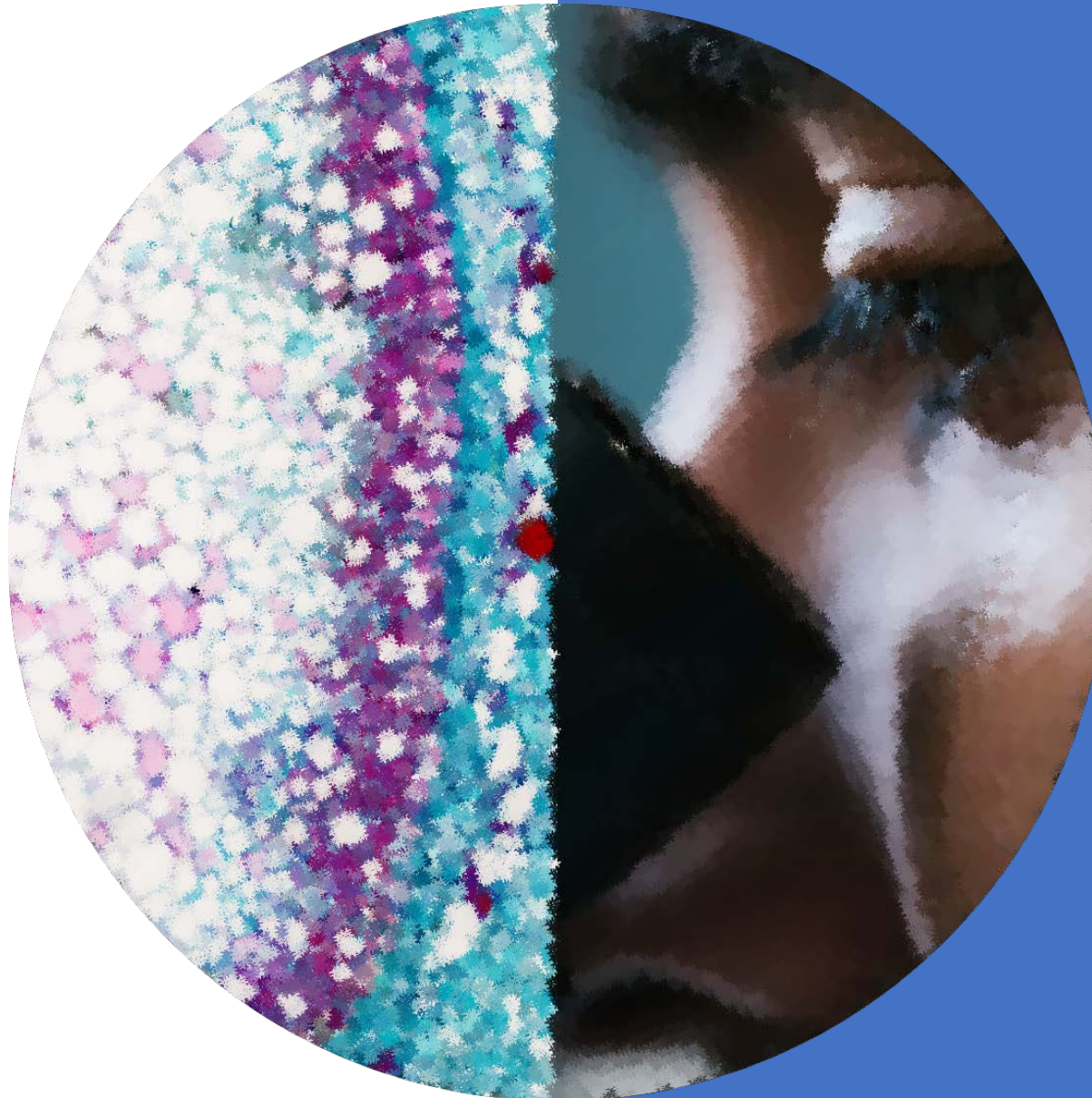




# Curbing Antimicrobial Resistance

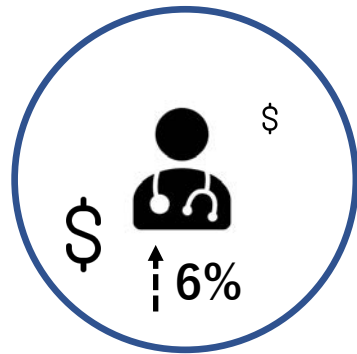
Dr Walter Okelo | 14/12/21



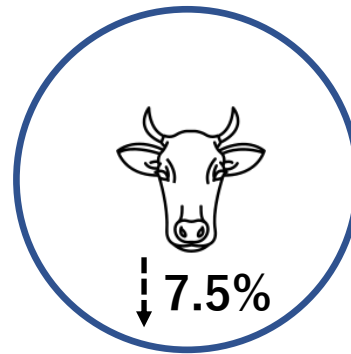
# The global problem of AMR



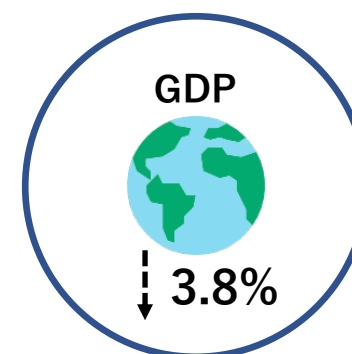
**Cause** 10M deaths by 2050: more than cancer and diabetes combined



**Increase** healthcare cost by 6%



**Decrease** global livestock production by 2.6% - 7.5%



**Decrease** global GDP by 3.8%



**Cost** Western Pacific region \$1.35 T over the next 10 years

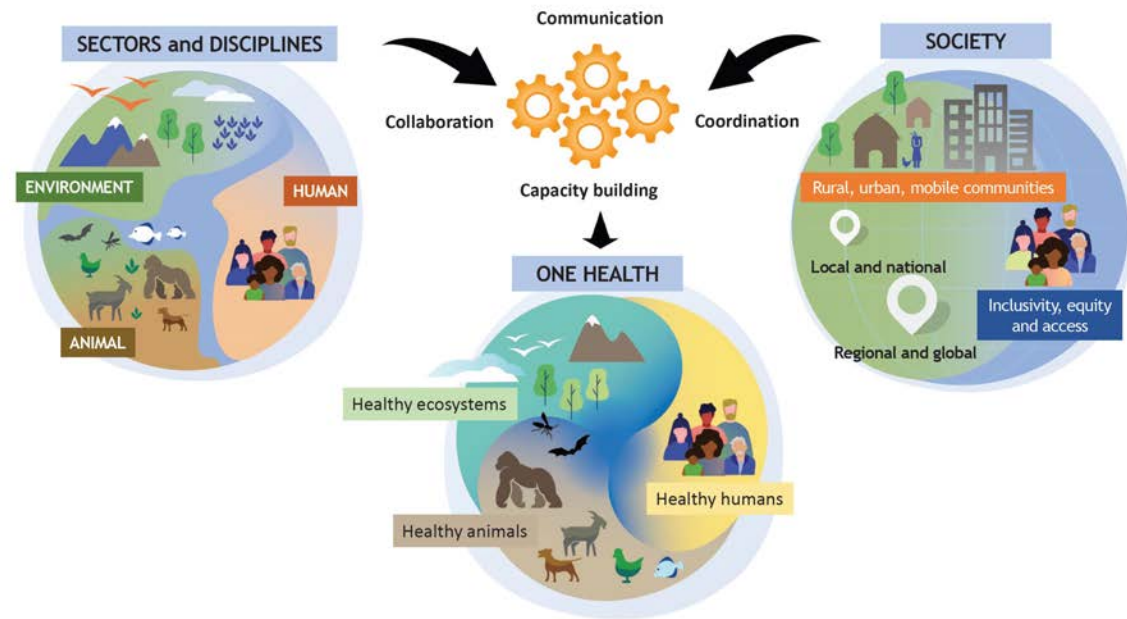
Jonas et al. 2017. *Drug-resistant infections : a threat to our economic future (Vol. 2) : final report (English)*. HNP/Agriculture Global Antimicrobial Resistance Initiative Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/3233114933396993758/final-report>

O'Neill's report. 2016. Tackling drug-resistant infections globally: Final report and recommendations. Review on Antimicrobial Resistance. [https://amr-review.org/sites/default/files/160518\\_Final%20paper\\_with%20cover.pdf](https://amr-review.org/sites/default/files/160518_Final%20paper_with%20cover.pdf)

WHO. 2017. Antimicrobial resistance in the Asia Pacific region: a development agenda. <https://www.aidsdatahub.org/sites/default/files/resource/who-antimicrobial-resistance-asia-pacific-region-development-agenda.pdf>

# Systems thinking: One Health approach

- **One Health** approach provides an operational mechanism for bringing agri-food systems, health systems, and ecosystems together to optimise health of people, animals and ecosystems.
- There is insufficient knowledge on how to mitigate AMR using the required One Health approach in low resource settings.
- But how do we develop do an integrated surveillance system and a business case for each sector to participate in the management of AMR given the limited resources in developing countries?



# Past and present EMAR project activities



## Scoping study

- Presence of multisectoral platform i.e., NARC
- Need to enhance research and laboratory capacity on AMR
- Need to strengthen animal health surveillance
- Need to develop an integrated AMR surveillance system
- Need to regulate antimicrobial use
- Need for new cost-effective policies



## Co-designing a new project

- To address the scoping study findings



## Implementation of new project

- Implementation of research and capacity building activities



Economic studies



Lab capacity building



KAP studies



# Outcomes/impacts and lessons learnt

## Outcomes/impact

Current:

- Increased research and lab capacity particularly in animal health
- Strong buy in and partnership between different sectors
- Increased knowledge on AMR
- Improved regulation on antimicrobial use

Future:

- Improved food & nutrition security, health outcomes, and water quality
- Increased capacity to prevent, detect, and respond to AMR and other disease threats (JEE IHR)

## Lessons learnt so far

Tackling AMR requires:

- Multisectoral platforms e.g., Fiji's NARC
- Strong partnerships
- Capturing interest of each sector
- Evidence of economic impact of AMR

