



AMR-B-CHANGE

Improving antibiotics use in West Africa: exploring current situation and developing strategies for behaviour change

Funding : ANR & BMBF

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Project abstract

Antimicrobial resistance (AMR) - rising to dangerously high levels worldwide - is currently one of the largest threats to global health, food security, and development.

The aim of this project will be to develop an intervention to mitigate antimicrobial resistance based on :

- the analysis of AMR pathogens among farm animals and along the food chain
- a better understanding of the perceptions and utilizations of antibiotics and related to AMR among health care workers, farmers and communities
- A design thinking approach to develop the intervention

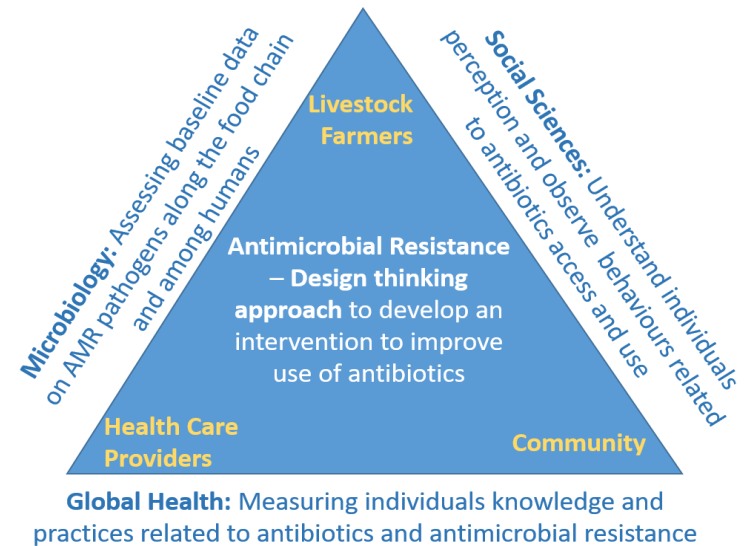
The study will be conducted in the Kossi Province, Burkina Faso and in the Ashanti Region, Ghana.

Phase 1:

- **To assess baseline data on AMR pathogens along the food chain** (from animals to meat samples to humans) in the Ashanti region in Ghana and in the Kossi Province in Burkina Faso;
- **To develop an exhaustive inventory of antibiotics** in circulation at national and local level in the two countries;
- **To analyse the perceptions** that lay and professional actors (for human and veterinary health) have of antibiotics and their effects as well as of antimicrobial resistance;
- **To describe waste management practices** in terms of antibiotics residues in hospitals, veterinary and industrial waste;
- **To measure knowledge and perceptions** related to AMR in the communities, and the drugs utilization for human and animals at the household level;
- **To quantify antibiotics utilization** in primary health facilities and secondary hospital.

Phase 2 :

- To use **design thinking** approach to develop and refine an **intervention** to improve awareness and understanding of antimicrobial resistance and stimulate responsible use of antimicrobial agents in humans and animals
- **To pre-test** it in terms of acceptability, feasibility and evaluate first potential impact.



The combination of expertise and disciplines in the research team from anthropology to microbiology including human and animal health, sociology and epidemiology is a unique opportunity to look at the AMR problem from different perspectives and develop a comprehensive intervention adapted to the local context and answering the need of the communities, the health care workers and the livestock farmers. The study is a real mixed-methods study triangulating data coming from microbiology (biomedical data), anthropology (qualitative methods) and socio-epidemiology (quantitative methods) with the central premise that the use of the different approaches in combination provides a better understanding of the research problem than either approach alone.

Research approval:

- Ethical Committee in Heidelberg: S-826/2021, November 24th, 2021
- Kwame Nkrumah University of Science and Technology, Committee on Human Research, Publication and Ethics, Kumasi : CHRPE/AP/580/21, December 8th, 2021
- Ghana Health Service Review Committee: GHS-ERC: 004/11/21, February 14th, 2022
- Comité Institutionnel d’Ethique du Centre de Recherche en Santé de Nouna : 2021/137/MS/SG/INSP/CRSN, November 22nd, 2021
- Comité d’Ethique pour la Recherche en Santé du Ministère de la Santé: 2021/12-270, December 1st, 2021