

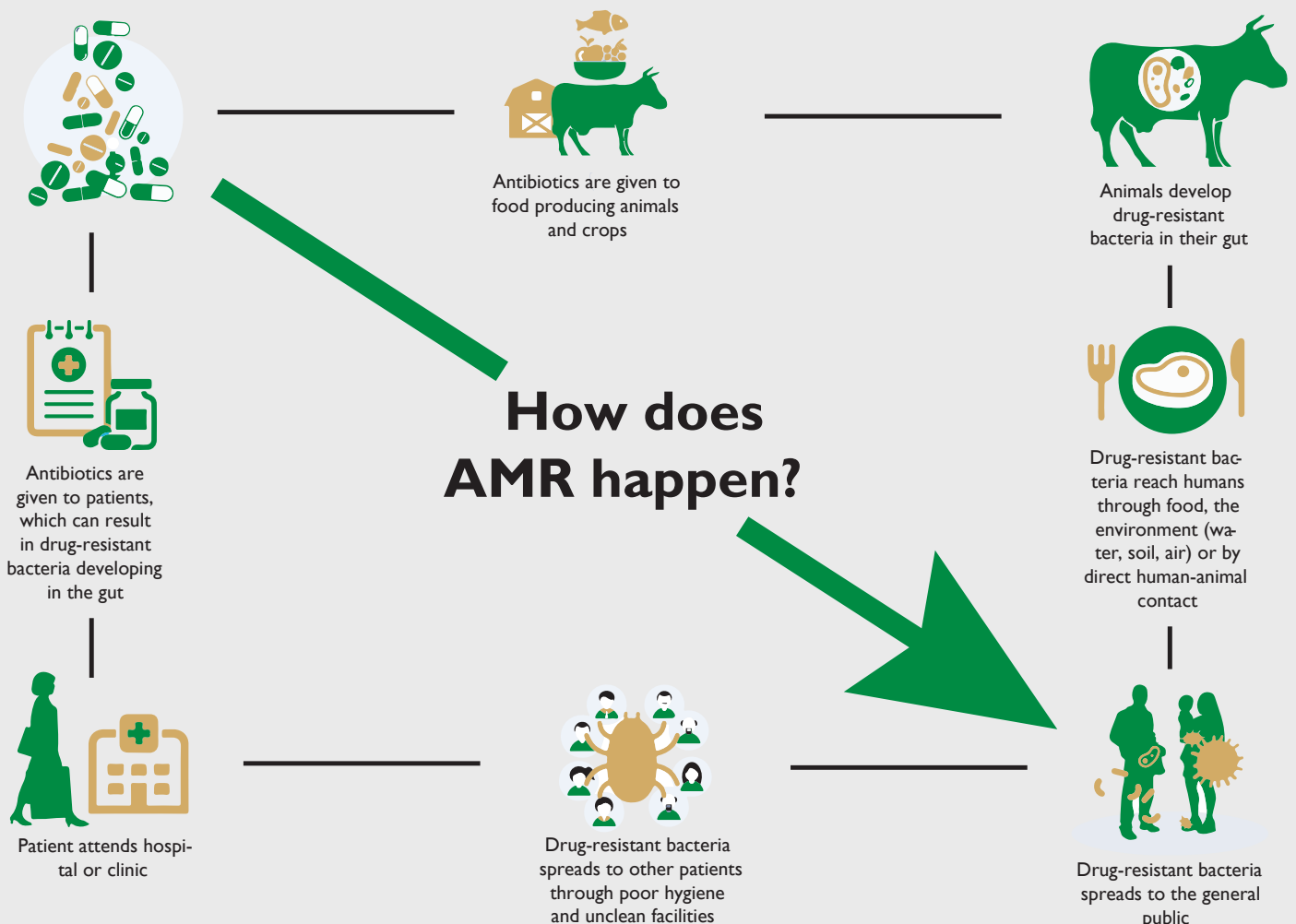


Impact of antimicrobial resistance on public health and the animal resources sector

Reports on the animal resources sector indicate that from 2000 to 2018, the proportion of antimicrobials showing resistance above 50% increased from 15% to 41% in chickens and from 13% to 34% in pigs.

What is Antimicrobial Resistance?

Antimicrobial resistance (AMR) happens when microorganisms (such as bacteria, fungi, viruses, and parasites) change and become resistant to antimicrobial drugs (such as antibiotics) to which they were originally susceptible to. This can be due to different factors such as the misuse or overuse of antimicrobials and exposure to falsified drugs. Microorganisms that develop resistance to the majority of commonly used antimicrobials are referred to as “superbugs”.



Ways to control development of antimicrobial resistance:

- Prudent use of antimicrobials
- Use antimicrobials mainly as targeted treatment based on clinical diagnosis
- Use antimicrobials, whenever possible, based on the results of microbiological susceptibility tests
- Use an antimicrobial agent of as narrow-spectrum as possible.
- Avoid or minimize adding antimicrobials in animal feed
- Avoid or minimize use of antimicrobials as growth promoters in livestock

Animal diseases and infections should primarily be prevented by:

- Ensuring biosecurity
- Good production and management practices
- Integrated disease control programmes that minimize the occurrence of diseases and eradicate endemic disease.

Best practices on the use of antimicrobials to safeguard animal health and welfare:

- Prescription and dispensation of antimicrobials must be justified by a veterinary diagnosis in accordance with the current status of scientific knowledge
- Antimicrobial susceptibility testing should be carried out to determine the choice of antimicrobial, where possible
- Antimicrobial metaphylaxis should be prescribed only when there is a real need for treatment
- The veterinarian should justify and document metaphylaxis treatment on the basis of clinical findings regarding development of a disease in a herd or flock.
- Antimicrobial metaphylaxis should never be used in place of good management practices
- Routine prophylaxis must be avoided
- Prophylaxis should be reserved for exceptional case-specific indications
- Administering medication to an entire herd or flock should be avoided whenever possible
- Sick animals should be isolated and treated individually (e.g. by administering injectables).
- All information relating to the animals, the cause and the nature of the infection and the range of available antimicrobial products must be considered when deciding regarding antimicrobial treatment

- A narrow-spectrum antimicrobial should always be the first choice unless prior susceptibility testing or where relevant epidemiological data indicates this would be ineffective
- Use of broad-spectrum antimicrobials and antimicrobial combinations should be avoided, unless fixed combinations are authorized in veterinary medicinal products.
- Eradicate the strains of the microorganisms leading animals to suffer recurrent infection requiring antimicrobial treatment by altering the production conditions, animal husbandry and/or management.
- Use of antimicrobial agents prone to propagating transmissible resistance should be minimized
- Off-label use (cascade) of the compounds in non-food-producing animals such as pets should be avoided and strictly limited to very exceptional cases, (as per ethical reasons and depending on laboratory antimicrobial susceptibility tests)
- Antimicrobial treatment must be administered to animals according to veterinarian's prescription
- Need for antimicrobial therapy should be reassessed on a regular basis to avoid unnecessary medication
- Perioperative use of antimicrobials should be minimized by using aseptic techniques
- Alternative strategies for controlling disease proven to be equally efficient and safe, such as vaccines, should be preferred over antimicrobial treatment
- Deploy pharmacovigilance system to enable detection of therapeutic failures in order to identify potential resistance issues
- Establish a network of laboratories with the capacity for performing antimicrobial susceptibility tests in zoonotic and commensal microorganisms and target pathogens in each member state to ensure the availability of susceptibility testing

Particular issues to be considered before using critically important antimicrobials:

- Some of the critical antimicrobials are used in both animals and humans, their misuse could lead to antimicrobial resistance transmissible to both animals and humans
- Antimicrobials should only be used in situations where a veterinarian has assessed, on the basis of antimicrobial susceptibility testing and relevant epidemiological data

- Prescription is key and final use should be sufficiently justified and recorded, where the use of antimicrobials under off-label use (cascade) is unavoidable and legally permissible
- The prescribing veterinarian should consider the use of a particular critically important antimicrobial necessary in order to avoid the suffering of diseased animals
- Ethical and public health concerns should be taken into considerations before a decision is taken to use critically important antimicrobials
- Use of critically important antimicrobials should be limited to cases where no other alternative is available

AU Task Force on antimicrobial resistance work

The task force represents the AU agencies involved in human, animal, and plant health sectors who will collaborate to measure, prevent, and mitigate harms from AMR organisms.

Within the next 5 years, AU will work to:


1. Improve surveillance of antimicrobial resistant organisms among humans, animals, and plants;
2. Delay emergence of antimicrobial resistance;
3. Limit transmission of antimicrobial resistance;
4. Mitigate harm among patients infected with antimicrobial resistant organisms.

To achieve these goals, the AU will also:

1. Advocate for policies, laws, good governance, and capacity building to enable long-term prevention and control of antimicrobial resistance;
2. Engage civil society organizations;
3. Develop human resources;
4. Enhance awareness and understanding on antimicrobial resistance and foster implementation of international standards;
5. Strengthen knowledge through research.

AU-IBAR intervention on antimicrobial resistance

Animal resources are a key contributor to Africa's Agricultural Gross Domestic Product, however, animal diseases still burden Africa with annual losses of over US\$4 billion in Sub-Saharan, an equivalent to 25% of the total value of animal production. Management of most diseases largely relies on use of anti-microbials. However, irrational use of drugs has led to the emergence and spread of antimicrobial resistance.



AU-IBAR (African Union Interafrican Bureau for Animal Resources) is involved undertaking interventions on tackling antimicrobial resistance. These are guided by the African Union Framework for Antimicrobial Resistance Control (2020-2025), the African Position on Antimicrobial Resistance and the Animal Health Strategy for Africa.

AU Framework for Antimicrobial Resistance Control seeks to strengthen control activities for antimicrobial resistance by establishing a coordination mechanism at the continental level, facilitating implementation of actions in member states and Regional Economic Communities (RECs), including coordinating interventions with Partners.

AU-IBAR is implementing a project on "Containing the Emergence and Spread of Antimicrobial Resistance in Africa (CES-AMR Africa) project." The project, funded by USDA-FAS, was initiated in April 2023 and is running for two years.

Its goal, specific objectives and project expected outputs and deliverables include the following:

Goal:

- To enhance governance with focus on regional approaches that strengthen capacities to undertake surveillance of antimicrobial resistant microorganisms

Specific objectives:

- To establish and operationalize the Africa antimicrobial resistance Surveillance Network (AMRSNET)
- To build capacities of member states to undertake surveillance and monitoring of antimicrobial resistance in the animal health sector

Expected project outputs and deliverables:

- Africa AMR Surveillance Network (AMRSNET) established
- Forum for the Africa AMR Surveillance Network (AMRSNET) convened annually
- Trainings conducted to build laboratories capacities to undertake AMR surveillance
- AMR surveillance undertaken in priority regional animal resources value chains

- Member states and RECs supported on needs bases to review and or develop their AMR policies, strategies or National Action Plans
- Report on trends on antimicrobial resistance and antimicrobial use and progress in combatting antimicrobial resistance in Africa produced and shared with relevant AU accountability mechanisms and Partners
- Advocacy, policy briefs and communication materials to advance work on antimicrobial resistance in Africa developed and disseminated to relevant stakeholders

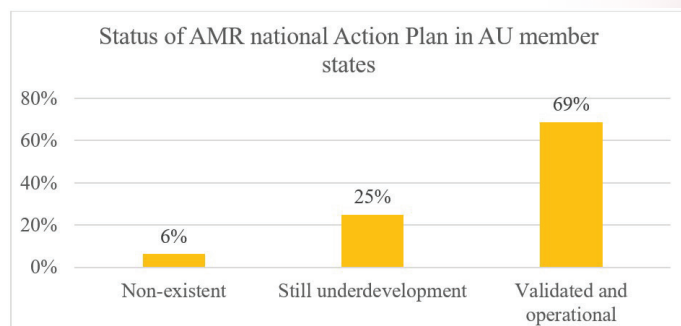
Coordination of AU Task Force on antimicrobial resistance

AU-IBAR is involved in the coordination of activities for the AU Task Force for AMR control. The AU Task Force is composed of AUC institutions, including AU-IBAR, Africa CDC, PANVAC, IAPSC, PATTEC and STRC and RECs working on antimicrobial resistance. The Task Force has been established to work with Member States (MS), RECs and Partners to prioritize continent-wide efforts to increase political commitment, mobilize resources, and promote policies that improve control of antimicrobial resistance.

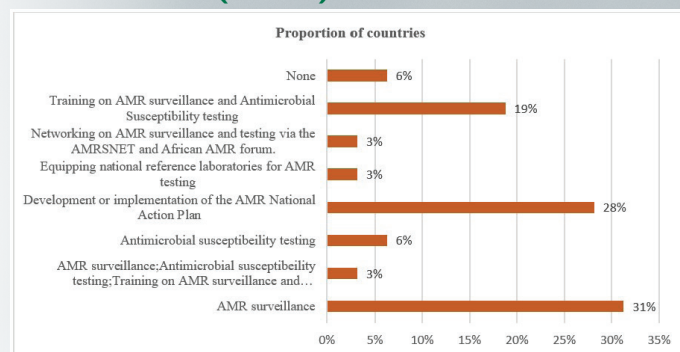
Coordinating AUs Partnership with the Africa Regional Quadripartite on AMR work in the Africa

AU-IBAR is involved in coordinating AUs Partnership with the Africa Regional Quadripartite on AMR work in the Africa. Partners include FAO, WHO, WOA, UNEP and Africa CDC.

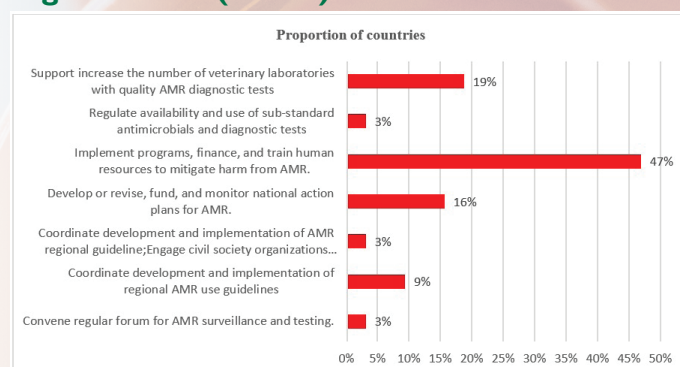
A recent survey on the status of AMR work among AU member states attracted responses from 32 countries. Below are some of the key findings.



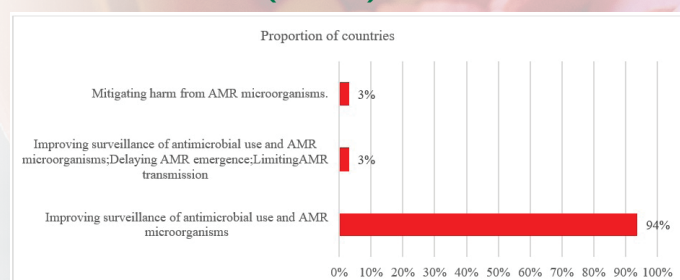
Recommended priority AMR activities at national level (n = 32)



Recommended priority AMR activities at regional level (n = 32)



Recommended priority AMR activities at continental level (n = 32)



For more information:

African Union - Inter-African Bureau for Animal Resources (AU-IBAR)
 Kenindia Business Park Museum Hill, Westlands Road
 P.O. Box 3078600100 Nairobi, Kenya.
 Tel: +254 (20) 3674 000
 Fax: +254 (20) 3674 341 / 3674 342
 Email: ibar.office@au-ibar.org
 Website: www.au-ibar.org