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OIE STRATEGY ON AMR: AFRICA'S CONTRIBUTION

22nd Conference of the OIE Regional Commission for Africa
20-24 February 2017
Swakopmund, Namibia



Acknowledgements

- Dr M Modisane, President of the OIE Council
- Dr M Letshwenyo, OIE SRRSA
- Dr W Wekwete, OIE Vet products Focal Point for Zimbabwe
- Dr P Otto, FAO Sub regional Office for Southern Africa (Formerly focal point for FAO/OIE/WHO on AMR)
- The OIE DG, Dr Eloit
- Dr D Gochez, OIE Science & New Tech, OIE Paris
- Dr F Caya, OIE Regional activities, Paris

Structure of presentation

- ❖ The case for AMR in Africa
- ❖ The role of the OIE in AMU & AMR
- ❖ The OIE Strategy
- ❖ Foreseen Africa's contribution
- ❖ "One Health" values and the tripartite OIE/FAO/WHO slides
- ❖ Some precedent events on the continent
- ❖ Concluding statements
- ❖ Important note for OIE member countries in Africa

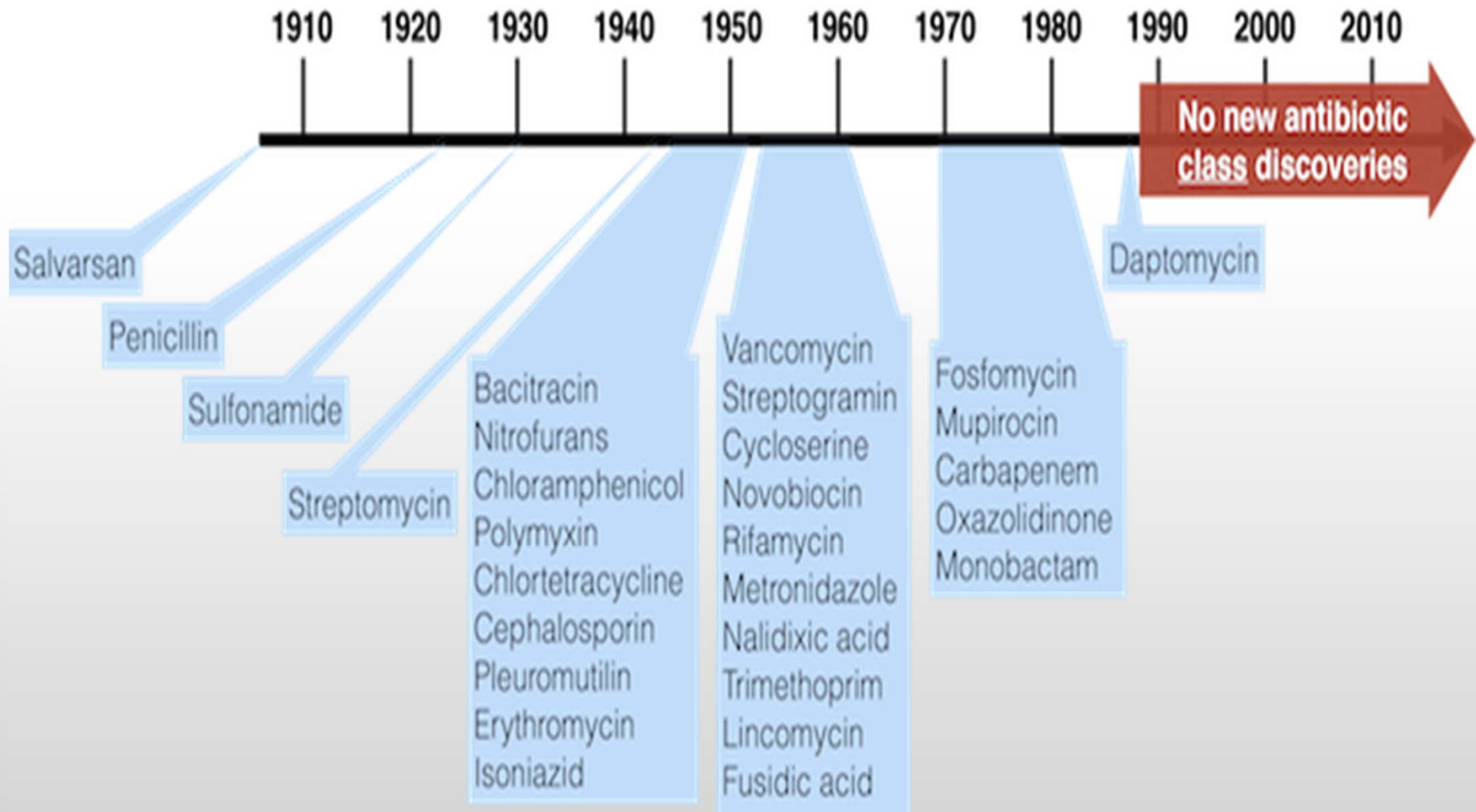
Premise of AMU and AMR

- In AMR we are referring to
 - How the antimicrobial molecule exerts selection pressure for development of resistance
 - How resistant microbial organisms overwhelm the host or the environment to lead to untreatable disease

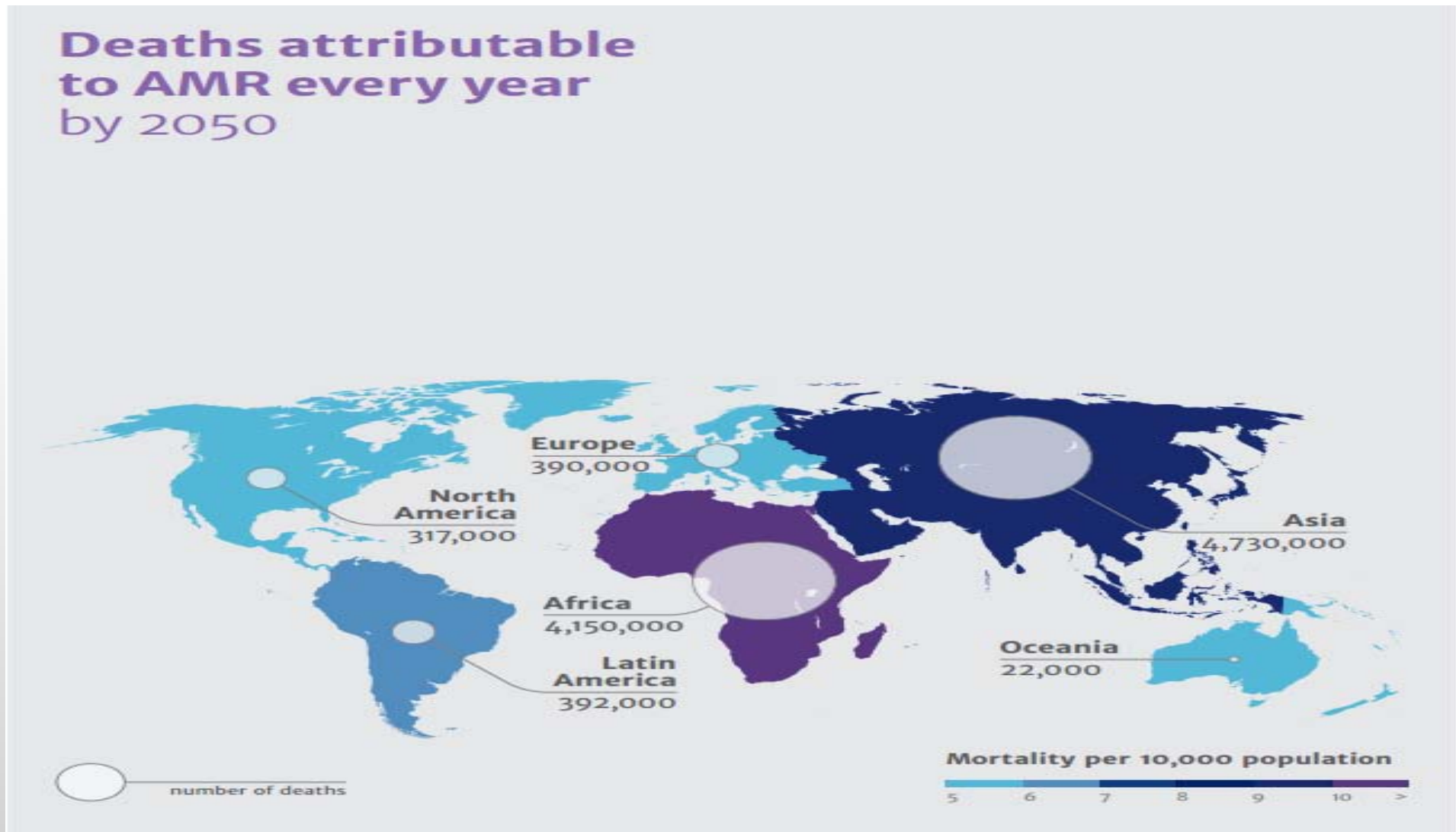
Premise of AMU and AMR

- Antimicrobial medicines an important element in animal health delivery
- Pace of AMR development a reflection of over-dependence and improper usage of antimicrobial medicines
- Implications of AMR development

The Golden Age of Antibiotics was short



10 million human deaths per year by 2050, Most in Africa and Asia



The case for AMR in Africa

Features of AMU & AMR in Veterinary Service delivery in Africa

Economic

- Growing demand for more animal-source food
- Difficulties with alternatives to antimicrobials
 - Vaccine development
 - Gaps in Good animal husbandry and hygiene practices

Ecological

- Soil-borne and vector-borne microbial pathogens
- Rural and urban sanitation and infrastructure provision & biohazard threats

Features of AMU & AMR in Veterinary Service delivery in Africa

Organisational and supervisory

- Access to veterinary services
 - Veterinary services coverage
 - Extensive Food animal production systems
 - Veterinary ethics and VSB oversight on veterinary professionals
 - Under-supervised use of prescription-type medicines
 - Vector-borne microbial diseases pressure (Tryps, cowdriosis)
 - Counterfeit drugs

Policies and legislation

- AMU regulation over registration, importation, AMR monitoring
- Inter-country, inter-regional regulatory harmonization
- Over-The-Counter access & use in feeds and administration through water

Knowledge and attitudes

- Literacy & sanitary awareness levels among animal owners, keepers
- Industry ethics
- Data and information on level and evolution of AMR
- Research & diagnostic technologies

The role of the OIE in AMU & AMR

OIE provisions for AMU & AMR

- OIE standards and guidelines on AMU & AMR
 - Harmonisation of surveillance and monitoring of AMR, AM usage patterns and risk analyses in aquatic & terrestrial animals
 - Laboratory methods for antimicrobial susceptibility testing
- The OIE strategy on AMR and AMU
- Global leadership through the OIE/WHO/FAO tripartite
- Global AMU data collection and consolidation

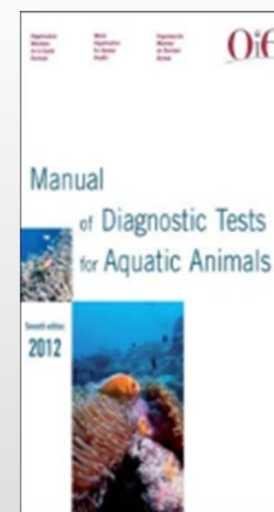
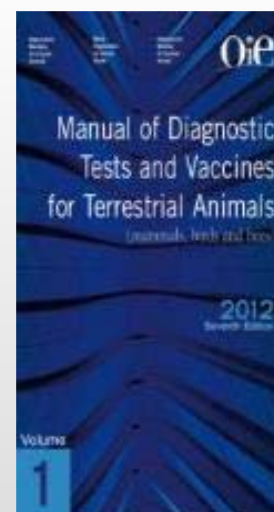
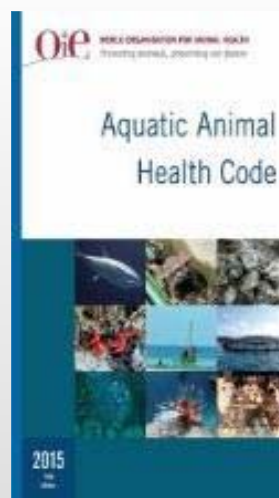
OIE Standards

CODES

- Terrestrial
- Aquatic

MANUALS

- Terrestrial
- Aquatic



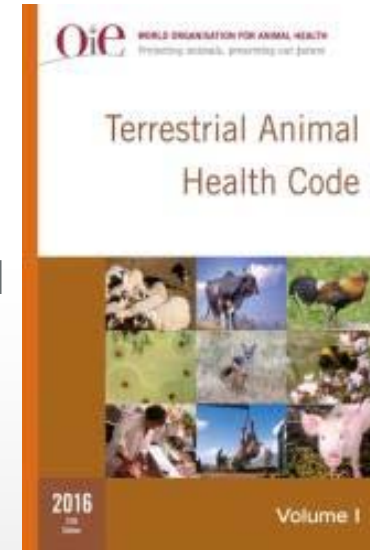
Codes and Manuals available on the OIE web site:
<http://www.oie.int/en/international-standard-setting/overview/>

Standards and guidelines related to antimicrobial resistance

OIE Terrestrial Animal Health Code

Section 6. Veterinary Public Health

- **Chapter 6.6.**
Introduction to the **recommendations** for controlling antimicrobial resistance
- **Chapter 6.7.**
Harmonisation of national antimicrobial resistance **surveillance and monitoring** programmes
- **Chapter 6.8.**
→ **Monitoring of the quantities and usage** patterns of antimicrobials agents used in food producing animals
- **Chapter 6.9.**
Responsible and prudent use of antimicrobial agents in veterinary medicines
- **Chapter 6.10.**
Risk analysis for antimicrobial resistance arising from the use of antimicrobial agents in animals



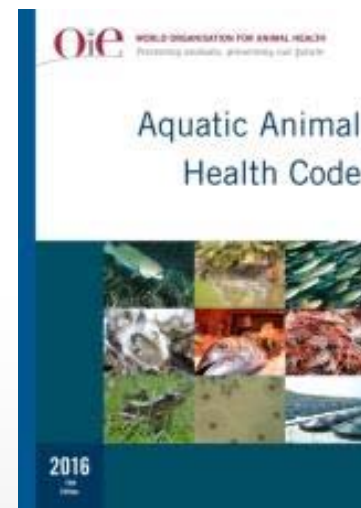
<http://www.oie.int/en/international-standard-setting/terrestrial-code/access-online/>

Standards and guidelines related to antimicrobial resistance

OIE Aquatic Animal Health Code

Section 6. Antimicrobial use in aquatic animals

- **Chapter 6.1.**
Introduction to the recommendation for controlling antimicrobial resistance
- **Chapter 6.2.**
Principles for **responsible and prudent use** of antimicrobial agents in aquatic animals
- **Chapter 6.3.**
→ **Monitoring of the quantities and usage** patterns of antimicrobial agents used in aquatic animals
- **Chapter 6.4.**
Development and harmonisation of national antimicrobial resistance **surveillance and monitoring** programmes for aquatic animals
- **Chapter 6.5.**
Risk analysis for antimicrobial resistance arising from the use of antimicrobial agents in aquatic animals



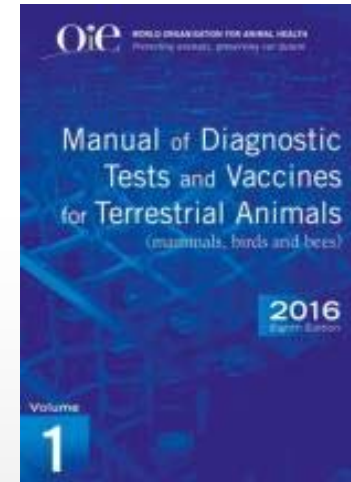
<http://www.oie.int/en/international-standard-setting/aquatic-code/access-online/>

Standards and guidelines related to antimicrobial resistance

Manual of Diagnostic Tests and Vaccines for Terrestrial Animals

Part 3. Specific Recommendations

- Chapter 3.1
Laboratory methodologies for bacterial antimicrobial
susceptibility testing



<http://www.oie.int/en/international-standard-setting/terrestrial-manual/access-online/>

Standards and guidelines related to antimicrobial resistance

OIE List of Antimicrobial Agents of Veterinary Importance

- Adopted in the 75th General Session in May 2007, but further updated and adopted in May 2013 and May 2015 by the World Assembly of OIE Delegates.

VCIA

Veterinary Critically Important Antimicrobial Agents

- Both Criteria 1 and Criteria 2

VHIA

Veterinary Highly Important Antimicrobial Agents

- Criteria 1 or Criteria 2

VIA

Veterinary Important Antimicrobial Agents

- Neither Criteria 1 or 2



http://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/Eng_OIE_List_antimicrobials_May2015.pdf

The OIE Strategy on AMR

OIE Strategy on AMR and the Prudent Use of Antimicrobials

Context

- 2015 Global Action Plan on AMR and the Tripartite Partnership
- OIE World Assembly Resolutions on AMR in 2015 and 2016
- OIE Strategy launched in November 2016
- Outlines a consolidated work programme under key objectives aligned with the WHO Global Action Plan

Objectives

1. Improve awareness and understanding
2. Strengthen knowledge through surveillance and research
3. Support good governance and capacity building
4. Encourage implementation of international standards



OIE Strategy on AMR and the Prudent Use of Antimicrobials

- Available on the OIE web site:

http://www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/PortailAMR/EN_OIE-AMRstrategy.pdf

1. Improve awareness and understanding

- Support Member Countries through the development of **targeted communications and advocacy materials**
- Promote awareness of AMR through Veterinary Statutory Bodies and Veterinary Education Establishments **to encourage a professional culture** that supports the responsible and ethical use of antimicrobials in animals
- Continue to support professional development goals by **conducting workshops, conferences and symposia** that promote the prudent use of antimicrobials and address the issue of AMR
- **Expand the portfolio of OIE guidance, education and scientific reference materials**
- **Collaborate with WHO and FAO** to ensure alignment and coordination of policy and advocacy initiatives

2. Strengthen knowledge through surveillance & research

- Support Member Countries in **developing and implementing monitoring and surveillance systems**
- Build and maintain a **database for collecting data on the use of antimicrobial agents in food-producing and companion animals**, with associated analysis and annual reporting
- **Enhance the development, use and functionality of OIE World Animal Health Information System (WAHIS)** to allow analysis of data on antimicrobial use
- **Guide and support research into alternatives to antibiotics** to encourage the development and uptake of new tools, products and methodologies
- Identify and pursue **opportunities for public-private partnerships in AMR research and risk management**

3. Support good governance and capacity building

- Provide assistance to Member Countries in developing and implementing **National Action Plans**, promoting a “One Health” approach
- **Provide tools and guidance** to assist Member Countries in their AMR risk assessment initiatives
- **Ensure Veterinary Services have the capacity** to implement OIE international standards, through engagement in the Performance of veterinary Services (PVS) Pathway
- Support Member Countries to **develop and modernise legislation** governing the manufacture, marketing authorisation, importation and distribution and use of veterinary products
- Provide regular training of **Focal Points on Veterinary Products**
- Ensure that **well-trained veterinarians and veterinary para-professionals** are at the forefront of national and regional efforts

4. Encourage implementation of OIE standards

- Support Member Countries in their efforts to **implement OIE standards**
- **Disseminate and encourage adoption of recommendations** in the OIE List of Antimicrobials of Veterinary Importance
- **Strengthen multilateral support** for implementation of OIE standards among policy makers
- Build on the success of the OIE standards development work programme to continue to advance for the animal sectors our **comprehensive framework of quality, science-based standards** that support the Global Action Plan on AMR
- **Collaborate with WHO and FAO** to support the development of a comprehensive and aligned framework of standards and guidelines across human health, animal health, agriculture and the food chain

Africa's contribution on AMR

What can Africa's contribution be on the global thrusts on AMR?

- Country Level
 - Document country experiences on AMU & AMR
 - Submit data on AMU & AMR to OIE (questionnaires)
 - Develop national strategies to address AMR threat in agriculture and animal production
 - Contribute to mapping & programming the desired future by way of National Action plans
 - Regulatory control & veterinary involvement on AMU
 - Awareness and ethical practices (Media, CPD, curricula)
 - Surveillance for AMR
 - Coordination & collaboration
 - ◆ Intra-sectorial
 - ◆ Inter-sectorial (contribute to NAP to ensure incorporation into 'One-Health')
 - Apply OIE & FAO-WHO Codex guidance for decisions
 - Promote alternatives to AMU

What can Africa's contribution be on the global thrusts on AMR?

- Regional Level
 - Harmonisation of veterinary drug regulation, including registration, importation and market authorisation; Quality assurance and quality control vs counterfeit drugs
 - Benchmark AMU under extensive production systems
 - Determine AMU & AMR development
 - Share AMR & AMU data & information
 - Coordinate research and knowledge sharing

What can Africa's contribution be on the global thrusts on AMR?

- Continental level
 - Support continental trade promotion efforts through strengthened application of inter-governmental standards for prudent use of antimicrobials and monitoring for animal-source food residues and AMR
 - Coordinate safeguards for key antimicrobials for human use
 - Support investment into collaborative research and development for:
 - rapid diagnostics for AMR;
 - vaccine development for Tryps and *Ehrlichia ruminantium*
 - Append in the LIDESAs

"One Health" values and the tripartite OIE/FAO/WHO

The One Health concept

- Expresses the acknowledgement that human and animal health are inter-dependent and related to the ecosystems in which they co-exist
 - Zoonoses & food-borne illnesses
 - Reservoirs
 - Antimicrobial residues in food
 - Vectors
 - Contaminated areas
 - Waste management
 - Gene flow
- Concept calls for collaboration in tackling human, animal and ecosystem health risks efficiently at the human-animal-environmental interphase

AMR Resources available in the global 'One Health' Tripartite

- OIE/FAO/WHO sharing responsibilities and global activities to address risks at the human/animal/ecosystem interphases
- AMR focus began 2010
 - Manual, checklist sample tool and M&E framework for NAPs development
 - Communication materials
- Global Foodborne Infections Network (GFN) of veterinary, food and Public health experts for enhancement of country capacities for integrated surveillance

AMR Resources available in the global 'One Health' Tripartite

- WHO Advisory, Group on Integrated Surveillance on AMR (AGISAR) together with GFN
 - Training workshops
 - External Quality Assurance system
 - Reference Testing Services and laboratory protocols
 - Country pilot and research projects
 - Cross-sectoral communication & collaboration
- FAO manuals on Good Agricultural Practices

Materials for Tripartite communication on AMR

LA RÉSISTANCE AUX ANTIBIOTIQUES

Les antibiotiques sont des médicaments qui agissent contre les bactéries et les champignons. Ils sont essentiels pour traiter de nombreuses infections bactériennes et fongiques.

Un usage excessif et inadéquat des antibiotiques contribue à l'émergence de bactéries et de champignons résistants. Ces micro-organismes résistants peuvent rendre le traitement des infections plus difficile et coûteux.

Il est donc essentiel de ne prendre des antibiotiques que lorsque les médecins le recommandent.

CE QUE LE SECTEUR AGRICOLE PEUT FAIRE

1. Utiliser les antibiotiques uniquement lorsqu'ils sont nécessaires pour traiter des animaux malades.
2. Éviter l'usage préventif des antibiotiques chez les animaux sains.
3. Éviter l'usage des antibiotiques pour promouvoir la croissance des animaux.
4. Éviter l'usage des antibiotiques pour traiter des infections virales.
5. Éviter l'usage des antibiotiques pour traiter des infections parasitaires.
6. Éviter l'usage des antibiotiques pour traiter des infections fongiques.
7. Éviter l'usage des antibiotiques pour traiter des infections bactériennes.

Food and Agriculture Organization of the United Nations | OIE WORLD ORGANIZATION FOR ANIMAL HEALTH | World Health Organization

WHY DO MICROBES BECOME RESISTANT?

Resistance genes already exist in the environment. They can be passed on to bacteria through horizontal gene transfer.

Antibiotic use in humans and animals creates selective pressure that favors the survival of resistant bacteria.

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HOW DOES ANTIMICROBIAL RESISTANCE SPREAD?

Resistant bacteria can spread from humans to animals and vice versa.

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Resistant bacteria can spread from humans to humans and vice versa.

RESISTANCE DEVELOPS RAPIDLY THROUGH ABUSE AND OVERUSE OF ANTIMICROBIAL MEDICINES

Antimicrobial Resistance

WHO, FAO, and OIE unite in the fight against Antimicrobial Resistance

THE FACTS

Antimicrobial agents:

- are essential to treat human and animal diseases,
- should thus be considered as a public good.

Some microbes have demonstrated full or partial resistance to different antimicrobial agents. It is an inevitable consequence of antimicrobial use both in humans and animals. This phenomenon called antimicrobial resistance, AMR, is an increasing global concern for human and animal health.

The need for a 'One Health' approach

Addressing the rising threat of AMR requires a holistic and multi-sectoral ('One Health') approach because antimicrobials used to treat various infectious diseases in animals may be the same or be similar to those used in humans. Resistant bacteria arising either in humans, animals or the environment may spread from one to the other, and from one country to another. AMR does not recognize geographic or human/animal borders.

A public good to protect

The discovery of antibiotics and their development to treat bacterial infections in humans and animals was one of the most important achievements of the 20th Century. Since antimicrobials were first commercially produced, initially for use in human medicine and subsequently in veterinary medicine, their use has been associated with the risk of emergence of AMR. At the same time as the world has observed accelerated emergence of resistance, the discovery and development of new antimicrobial drugs has slowed down. The effectiveness of the existing antimicrobials should therefore be preserved as much as possible.

AMR does not recognize geographic or human/animal borders.

AMR jeopardizes progress on health outcomes.

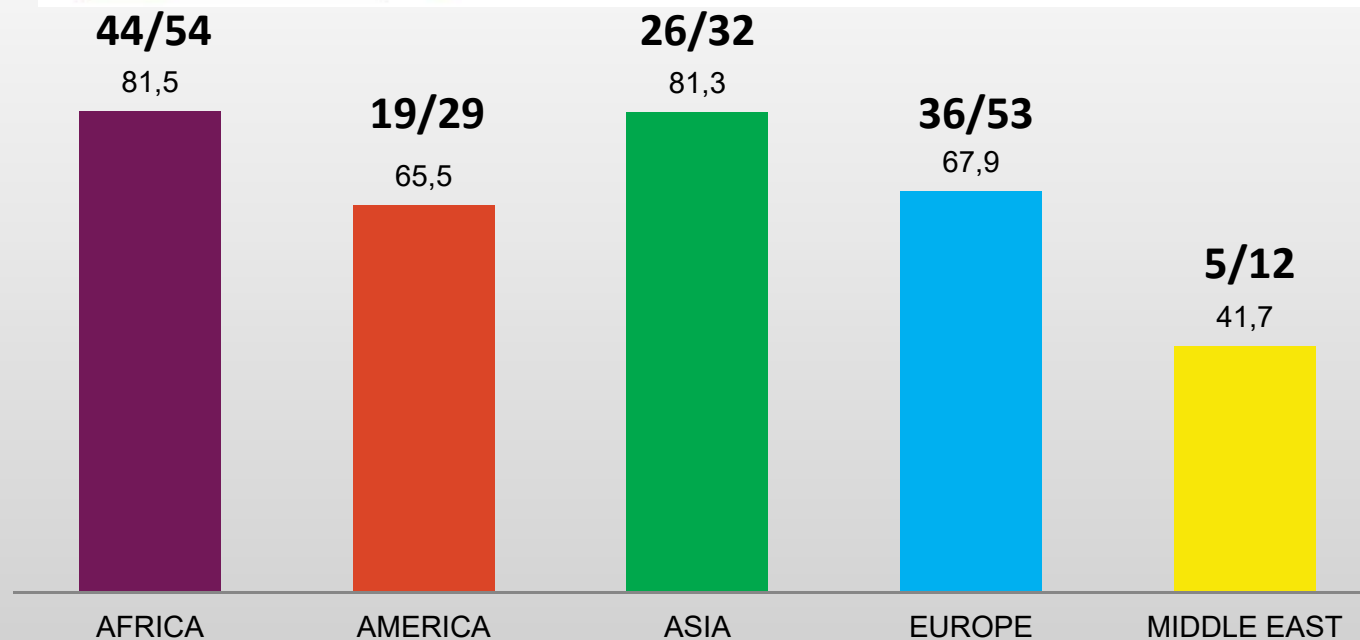
WHO | FAO | OIE

Related precedent events on the continent

Key events on AMU/AMR on the continent

- 44 out of 54 countries submitted data on the use of antimicrobial agents in animals to the first report on OIE's first phase at global and regional levels

Proportion of OIE Member Countries submitting AMU questionnaires by OIE region



130 (72%)
Member
Countries
responded
in the first
phase

Key events on AMU/AMR on the continent

- In-country sensitisation initiatives and status-quo appraisals on AMR/AMU supported by FAO with Fleming Fund (UK) in Ghana, Kenya and Zimbabwe, Zambia, Tanzania, Ethiopia, Sudan.
- WHO workshop AMR in Zimbabwe on Developing NAPs based on One Health, Harare, Zimbabwe (March, 2016).
- 2nd WHO AFRO “One-Health” workshop for national AMR focal points. Developing and implementing NAPs for AMR (Harare, Zimbabwe 25-27 Jan, 2017).

Conclusions

CONCLUSIONS

- Antimicrobials remain essential to animal production so, Africa needs to join the action against AMR
 - In the context of the CAADP & the LIDESAs, AMU/AMR are key issues impacting sustainable productivity, public health and biodiversity
 - Given importance placed on livestock development in connection with regional CFTA & international trade
- There is need to strengthen regulatory frameworks on AMU
- Need to collaborate with partners under “One health”
- Domestic thrust on AMR/MU and formulate regional & national strategies
- Balance access vs Excess hence promote utilisation of international standard on responsible use

Important note for OIE member countries in Africa

REMINDER

- Technical Item of the upcoming 85th General Session of the OIE World Assembly of Delegates will be on AMR: **“Global action to alleviate the threat of antimicrobial resistance: progress and opportunities for future activities under the ‘One Health’ initiative”**
- So far only 38/54 countries have responded to questionnaire
- Participate in 2nd phase of annual data on AMU



WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

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