Tripartite (FAO-OIE-WHO) approach* and
OIE activities on Antimicrobial Resistance

*On behalf of the Tripartite Technical Focal Points
Context

Global demand for food security

- +1 billion people by 2050
- Demand for animal protein, notably milk and eggs will increase by more than 50%
- Focus on developing / transition countries


Billions

Source: US Bureau of the Census
World production

**Meat**

World meat production (million tonnes)

Source: FAOSTAT

**Milk**

World milk production (million tonnes)

Source: FAOSTAT

**Eggs**

World eggs production (million tonnes)

Source: FAOSTAT
Distribution of livestock production systems

Source: The World Bank
Drivers of consumption and future trends

World demand for livestock food products since 1990:
- Milk +30%
- Meat +60%
- Eggs + 80%
- +70% by 2050

- Population growth: +30% since 1990
  +30% or 9 billion people by 2050

- Income growth: +1.5%/year since 1980, +5 to 7%/ year in Asia
  +2%/year by 2050

- Urbanization: 20% in 1900, 40% in 1990, >50% in 2010
  70% of urban people in 2050
Globalisation

- Unprecedented movements of commodities and people are used by pathogens to colonise the planet

- There is no where in the world from which we are remote and no one from whom we are disconnected

- Resistant bacteria travel with humans, animals and commodities and ignore boarders and oceans
Need for common actions

- A stronger collaboration between WHO, FAO and OIE
- Sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interfaces
- Three ‘flagship’ topics:
  - Zoonotic influenza
  - Rabies
  - Antimicrobial resistance (AMR)
Why is antimicrobial resistance (AMR) a global concern?

Antimicrobial agents are essential to ensure human health, animal health and welfare, and food security.

- AMR challenges control of infectious diseases
- AMR increases care costs
- AMR compromises health security and damages economies
- There is a lack of coherent global approaches to prevention and containment

The human, animal and plant sectors have a shared responsibility to prevent or minimise the development of antimicrobial resistance by both human and non-human pathogens.
The implementation of the FAO-OIE-WHO Tripartite Agreement/Vision

High Level Technical Meeting, Mexico October 2011

Jointly addressing AMR (HLTM meeting report)

(http://www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/HLTM_exec_summary.pdf)
The problem

- Inappropriate use of antimicrobial agents in human and veterinary medicine has led to AMR, resulting in prolonged illness and increased costs.
The solution

- A holistic and coordinated management across the animal, food and human sectors in different ecosystems and geographic locations
- Improved intersectoral collaboration where regulations of medicines are managed by different entities
Needs (1)

- **International standards** (to harmonise protocols and methodologies) to monitor AMR and antimicrobial usage

- **Surveillance data** on AMR and antimicrobial usage to support AMR risk analysis

- **Technical capacity** (for surveillance of AMR and antimicrobial usage and AMR risk analysis)
Needs (2)

- Coordinated research on effectiveness of policies to achieve AMR risk reduction
- R&D new drugs
- Legislation on access to quality drugs and restricted use
- Good governance of all sectors related to authorisation and use of antimicrobials (lab expertise, international standards and legislation development and implementation, surveillance and monitoring)
Steps for action at country level (1)

- Formal **mechanisms of collaboration** between ministries/authorities involved (health, agriculture, livestock, food, environment)

- **Concordance** between veterinary and human medicines regulation, approval, prescription control and monitoring of use

- Development and adoption of **international standards and protocols** to facilitate information sharing and harmonisation in surveillance of AMR and antimicrobial use in humans and animals

- **Surveillance programmes** to monitor current and emerging AMR patterns involving animal and human health sectors
Steps for action at country level (2)

- Institutional and technical capacities for AMR and antimicrobial usage monitoring and surveillance; and AMR risk analysis
- Multidisciplinary task forces of Authorities involved to act on surveillance data
- Joint evaluation programmes on the effectiveness of management actions to reduce the prevalence of AMR in human and animal sectors
- Common messages and outreach
Conclusions: actions at national level

- Governance
- Legislation
- Good quality information
- Capacity building
- Risk assessment
- Close cooperation
Ongoing and future global collaboration
Tripartite Annual Executive & Coordination Meetings:

Paris, 1 - 2 February 2012, OIE Headquarters:

Tripartite Strategy: AMR one of the priority topics

- R13- Headquarters to **nominate focal points for AMR** in the three organisations to define and implement the immediate next steps for collaboration.

- R14- **Scale up AMR** to address all sectors. Focus should include legislation and capacity building.

- R15- That the **Veterinarian, or Para-Professional under Veterinary authority, be considered as key players for using antibiotics** in order to better control their use.

- R16- Existing HQ Tripartite Focal Points on AMR **work on an Action plan** addressing the following items: legislation, capacity building, needs of resources for poor countries, misuse and illegal use.
Tripartite Annual Executive & Coordination Meetings

Rome, 6 - 7 February 2013, FAO Headquarters

Recommendations:
- Continue to work together on AMR to protect human and animal health
- **Support the joint AMR capacity building** initiatives as agreed by the Tripartite
- **Speak with one voice and take collective action** through a coordinated approach with shared responsibilities to tackle antimicrobial resistance worldwide

Action:
- **AMR focal points to prepare an action plan** for the Tripartite in view of the development of a joint Tripartite global strategy on the containment of AMR
Tripartite technical focal points for antimicrobial resistance

- Technical Focal Points: 4th meeting Dec 2013
- Identified common areas for cooperation
- Use common messages
- Development of a tripartite work plan is ongoing
- Mutual participation in relevant *ad hoc* Groups, meetings and trainings
- Invited at the first meeting of the WHO *Strategic and Technical Advisory Group on Antimicrobial Resistance* organized at the WHO, 19 September 2013
OIEs activities on Antimicrobial Resistance
World Organisation for Animal Health (OIE): reminder

- Intergovernmental organisation with 178 Member Countries
- International reference standard-setting organisation for animal health –
  - one of the ‘Three Sisters’ referenced in the SPS agreement by the World Trade Organisation
World Organisation for Animal Health (OIE): reminder

- Mandate: to improve animal health and welfare worldwide
- To ensure food safety from the animal production phase
- Supported by a network of 284 Reference Laboratories and Collaborating Centres
**OIEs approach to tackle AMR**

*Antimicrobials are a precious necessity for public health, animal health and welfare*

- **Current status:**
  - No control of antimicrobial circulation in more than 100 countries
  - Falsified product make up a majority of circulating antimicrobials
  - Challenge in many developed countries: unrestricted access to antimicrobials by farmers without veterinary oversight
Terrestrial and Aquatic Codes

Standard setting: all standards updated
(FAO and WHO participate in the expert Group)

- Harmonisation of national antimicrobial resistance surveillance programmes
- Monitoring of the quantities and usage patterns
- Responsible and prudent use (Veterinary supervision)
- Risk assessment (linked the use of antimicrobial agents in animals, update ongoing)
- OIE List of Antimicrobial Agents of Veterinary Importance
  (updated in 2013 to take into account concerns for human health)
OIE actions to tackle AMR

Capacity-building

- Veterinary services & Legislation (PVS pathway, Gap analysis)
- Training of National Focal Points
- Supporting quality veterinary medicines (VICH)
- Supporting veterinary education & day one competences
- Strengthening veterinary statutory bodies and veterinary oversight on the use of antimicrobials
OIE actions to tackle AMR
Supporting solidarity

OIE Global Conference on the Responsible and Prudent use of antimicrobial agents for animals, 13-15 March 2013, Paris, France

- FAO and WHO participation
- Recommendations to be taken to 2014 General Session

- OIE to collect harmonised quantitative data on the use of antimicrobial agents in animals with the view to establish a global database
- Will be based on the first OIE questionnaire
Feedback from Global Conference: Questionnaire

Replies and analysis

- Sent to all the OIE Delegates and OIE National Focal Points for Veterinary Products (June 2012)
- 152 questionnaires received from 178 OIE Member Countries = 85% replied
- OIE National Focal Points for Veterinary Products were key drivers
Proportion of OIE Member Countries with an official system for collecting quantitative data

- Yes; 41; 27%
- No; 111; 73%

- Africa: 95% Yes, 5% No
- Americas: 96% Yes, 4% No
- Asia - Oceania: 67% Yes, 33% No
- Europe: 54% Yes, 46% No
- Middle East: 56% Yes, 44% No
Proportion of OIE Member Countries banning the use of antimicrobial agents as growth promoters

- Yes, 51%
- Partial, 19%
- No, 30%
Conclusion

We need:

- More cooperation between international organisations
- More awareness raising
- Support for developing countries to implement good governance
- Good quality veterinary services, including the private sector, and laboratories
- Involvement of all stakeholders
- More risk assessment and banning of non-priority practices in animals
- More research and public-private partnerships
Antimicrobial use in animals: conclusion

- Animal health and welfare must be sustained
- Food security and food safety must be ensured
- International solidarity is crucial in a globalised world
- Practices at risk to be carefully evaluated (growth promotion)
- No universal optimal solution for the delivery of antimicrobials at farm level worldwide,
- The well qualified veterinarian is the key actor
Thank you for your attention

Organisation Mondiale de la Santé Animale

World Organisation for Animal Health

Organización Mundial de Sanidad Animal
Problems related to AMR are linked to antimicrobial use in any environment, including human and non-human usages. Antimicrobial resistance is not a recent phenomenon, but it is critical to take action now to keep antimicrobial agents effective and useful to combat disease.