

**Dr Elisabeth Erlacher-Vindel**

Head, Antimicrobial Resistance and Veterinary Products Department

## **How can the animal sector contribute to addressing AMR ?**

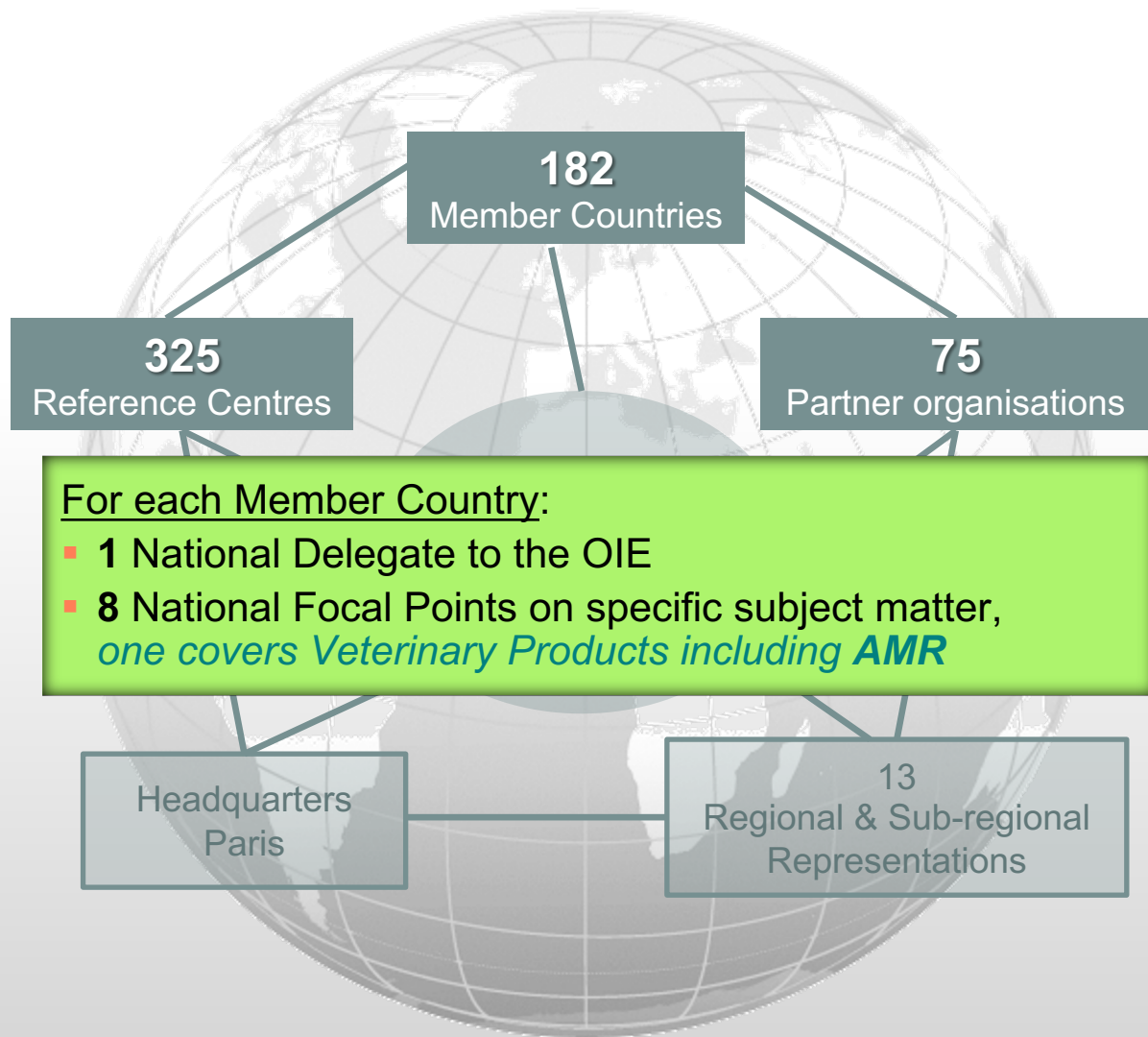
Advancing the One Health response to  
Antimicrobial Resistance (AMR)  
Webinar, 11.01.2021



WORLD ORGANISATION FOR ANIMAL HEALTH *Protecting animals, preserving our future*

# World Organisation for Animal Health (OIE)

- An Intergovernmental Organisation
- Formed in **1924** as the *Office International des Epizooties* (OIE)
- Mandate to Improve Animal Health, Welfare and Veterinary Public Health
- **Sets international standards recognized by the WTO**



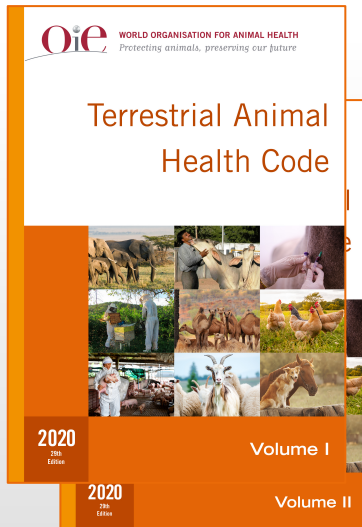
# The OIE Strategy on AMR and the Prudent Use of Antimicrobials

- The OIE Strategy supports the objectives established in the **Global Action Plan on antimicrobial resistance** and reflects the mandate of the OIE, through four main objectives:



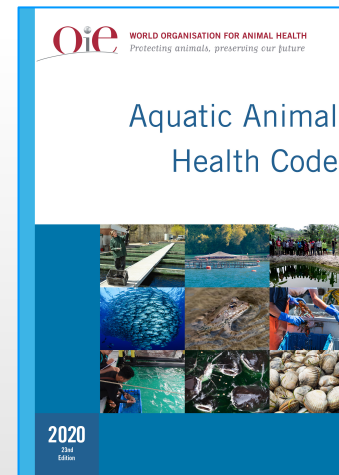
# OIE Standards and guidelines related to AMR

## Terrestrial Animal Health Code



- Ch.6.7. **Introduction** to the recommendations for controlling antimicrobial resistance
- Ch.6.8. Harmonisation of national **AMR surveillance and monitoring** programmes (updated in May 2018)
- Ch.6.9. **Monitoring of the quantities and usage patterns** of antimicrobial agents used in food-producing animals (Agreement on definitions)
- Ch.6.10. **Responsible and prudent use** of antimicrobial agents in veterinary medicine
- Ch.6.11. **Risk analysis** for AMR arising from the use of antimicrobial agents in animals

## Aquatic Animal Health Code

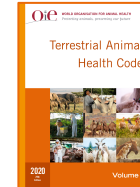


- Ch.6.2. Principles for **responsible and prudent use** of antimicrobial agents in aquatic animals
- Ch.6.3. **Monitoring of the quantities and usage patterns** of antimicrobial agents used in aquatic animals
- Ch.6.4. Development and harmonisation of national **AMR surveillance and monitoring** programmes for aquatic animals
- Ch.6.5. **Risk analysis** for AMR arising from the use of antimicrobial agents in aquatic animals



# OIE Standards on Responsible and prudent use

- Provides guidance for the responsible and prudent use of [antimicrobial agents](#) in veterinary medicine, with the aim of protecting both animal and human health as well as the environment.
- Covers all stages from authorisation, production, control and distribution to use
- Defines the respective responsibilities of the [Competent Authority](#) and stakeholders
- (veterinary pharmaceutical industry, [veterinarians](#), animal [feed](#) manufacturers, distributors and food animal producers)




**Terrestrial Code: Chapter 6.10:**  
[https://www.oie.int/index.php?id=169&L=0&htmfile=chapitre\\_antibio\\_use.htm](https://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_antibio_use.htm)





**Aquatic Code: Chapter 6.2**  
[https://www.oie.int/index.php?id=171&L=0&htmfile=chapitre\\_antibio\\_resp\\_prudent\\_use.htm](https://www.oie.int/index.php?id=171&L=0&htmfile=chapitre_antibio_resp_prudent_use.htm)

# OIE List of Antimicrobial Agents of Veterinary Importance:



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 **Criteria used for categorisation**

 **List of antimicrobial agents**

**OIE LIST OF ANTIMICROBIAL AGENTS OF VETERINARY IMPORTANCE**  
(July 2019)

The OIE<sup>1</sup> International Committee unanimously adopted the List of Antimicrobial Agents of Veterinary Importance at its 75th General Session in May 2007 ([Resolution No. XXVIII](#)).

**Background**

Antimicrobial agents are essential drugs for human and animal health and welfare. Antimicrobial resistance is a global public and animal health concern that is influenced by both human and non-human antimicrobial usage. The human, animal and plant sectors have a shared responsibility to prevent or minimise antimicrobial resistance selection pressures on both human and non-human pathogens.

The FAO<sup>2</sup>/OIE/WHO<sup>3</sup> Expert Workshop on Non-Human Antimicrobial Usage and Antimicrobial Resistance held in Geneva, Switzerland, in December 2003 (Scientific Assessment) and in Oslo, Norway, in March 2004 (Management Options) recommended that the OIE should develop a list of critically important antimicrobial agents in veterinary medicine and that WHO should also develop such a list of critically important antimicrobial agents in human medicine.

Conclusion No. 5 of the Oslo Workshop is as follows:

5. The concept of "critically important" classes of antimicrobials for humans should be pursued by WHO. The Workshop concluded that antimicrobials that are critically important in veterinary medicine should be identified, to complement the identification of such antimicrobials used in human medicine. Criteria for identification of these antimicrobials of critical importance in animals should be established and listed by OIE. The overlap of critical lists for human and veterinary medicine can provide further information, allowing an appropriate balance to be struck between animal health needs and public health considerations.

Responding to this recommendation, the OIE decided to address this task through its existing *ad hoc* Group on antimicrobial resistance. The terms of reference, aim of the list and methodology were discussed by the *ad hoc* Group since November 2004 and were subsequently endorsed by the Biological Standards Commission in its January 2005 meeting and adopted by the International Committee in May 2005. Thus, the work was officially undertaken by the OIE.

**Scope**

The OIE List of Antimicrobial Agents of Veterinary Importance:

- Addresses antimicrobial agents authorised for use in food-producing animals
- Does not include antimicrobial classes/sub classes only used in human medicine
- Does not include antimicrobial agents only used as growth-promoters
- Focuses currently on antibacterials and other important antimicrobials agents used in veterinary medicine

<sup>1</sup> OIE: World Organisation for Animal Health  
<sup>2</sup> FAO: Food and Agriculture Organization of the United Nations  
<sup>3</sup> WHO: World Health Organization

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July 2019

**Recommendations**

Any use of antimicrobial agents in animals should be in accordance with the OIE Standards on the responsible and prudent use laid down in the Chapter 6.9. of the *Terrestrial Animal Health Code* and in the Chapter 6.3. of the *Aquatic Animal Health Code*.

The responsible and prudent use of antimicrobial agents does not include the use of antimicrobial agents for growth promotion in the absence of risk analysis.

According to the criteria detailed above, antimicrobial agents in the OIE List are classified according to three categories, Veterinary Critically Important Antimicrobial Agents (VCIA), Veterinary Highly Important Antimicrobial Agents (VHIA) and Veterinary Important Antimicrobial Agents (VIA).

However, a specific antimicrobial/class or subclass may be considered as critically important for the treatment of a specific disease in a specific species (See specific comments in the following table of categorisation of veterinary important antimicrobial agents for food-producing animals).

For a number of antimicrobial agents, there are no or few alternatives for the treatment of some specified disease in identified target species as it is indicated in the specific comments in the OIE List. In this context, particular attention should be paid to the use of VCIA and of specific VHIA.

Among the VCIA in the OIE List, some are considered to be critically important both for human and animal health; this is currently the case for Fluoroquinolones and for the third and fourth generation of Cephalosporins. Colistin has been moved in 2016 to the WHO category of Highest Priority Critically Important Antimicrobials. Therefore these two classes and Colistin should be used according to the following recommendations:

- Not to be used as preventive treatment applied by feed or water in the absence of clinical signs in the animal(s) to be treated;
- Not to be used as a first line treatment unless justified, when used as a second line treatment, it should ideally be based on the results of bacteriological tests; and
- Extra-label/off label use should be limited and reserved for instances where no alternatives are available. Such use should be in agreement with the national legislation in force; and
- Urgently prohibit their use as growth promoters.

The classes in the WHO category of Highest Priority Critically Important Antimicrobials should be the highest priorities for countries in phasing out use of antimicrobial agents as growth promoters.

The OIE List of antimicrobial agents of veterinary importance is based on expert scientific opinion and will be regularly updated when new information becomes available.

Antimicrobial classes / sub classes used only in human medicine are not included in this OIE List. Recognising the need to preserve the effectiveness of the antimicrobial agents in human medicine, careful consideration should be given regarding their potential use (including extra-label/off-label use) / authorisation in animals.

**Abbreviations:**

Animal species in which these antimicrobial agents are used are abbreviated as follows:

AVI: avian	EQU: Equine	VCIA: Veterinary Critically Important Antimicrobial Agents
API: bee	LEP: Rabbit	VHIA: Veterinary Highly Important Antimicrobial Agents
BOV: bovine	OVI: Ovine	VIA: Veterinary Important Antimicrobial Agents
CAP: caprine	PIS: Fish	
CAM: camel	SUI: Swine	

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[https://www.oie.int/fileadmin/Home/eng/Our\\_scientific\\_expertise/docs/pdf/AMR/A\\_OIE\\_List\\_antimicrobials\\_July2019.pdf](https://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/AMR/A_OIE_List_antimicrobials_July2019.pdf)

# WE NEED YOU

WHO ARE YOU?

► VETERINARY SERVICES

► POLICY MAKERS

► VETERINARIANS

► VETERINARY STUDENTS

► FARMERS

► PHARMACEUTICAL INDUSTRY

► WHOLESALERS AND RETAILERS

► ANIMAL FEED MANUFACTURERS



WE NEED YOU to follow the "Five Only" rules to handle antimicrobials with care

# WE NEED YOU



CONTACT US

ENGLISH



WE NEED YOU

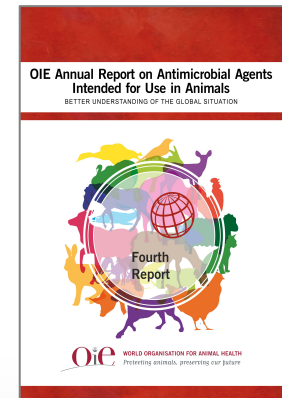
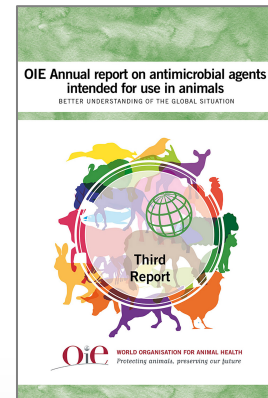
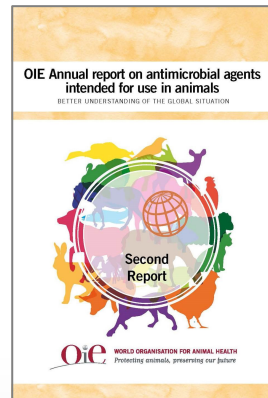
WE ALL HAVE A ROLE TO PLAY TO HANDLE  
**ANTIMICROBIALS**  
— WITH CARE —



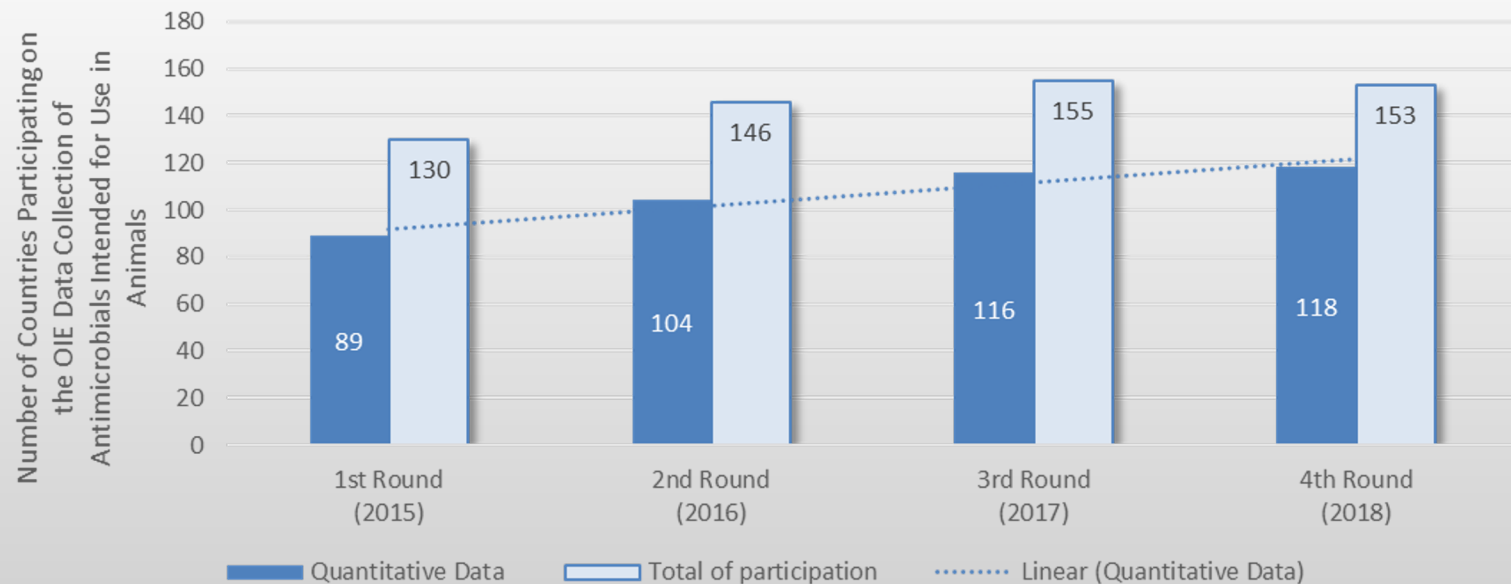
Misuse and overuse of antimicrobials increase resistance risk, endangering both animal and human health and welfare.

<https://oie-antimicrobial.com/>

# OIE Standards: Monitoring of the quantities and usage patterns



<https://www.oie.int/en/scientific-expertise/veterinary-products/antimicrobials/>



# Interaction with the Countries

## Administrative validation



Delegate in copy



Right form of the questionnaire

## Technical validation

## Administrative validation

Submitting the questionnaire

## Technical validation



All fields answered



Coherence on the answers



Comparing country data over time



Helping on the calculations of kg of active ingredient



**644** emails, **27** phone calls and **10** videoconferences exchanged with the Countries (mainly Focal Points for Veterinary Products)



- Africa: 194
- Americas: 190
- Asia, Far East and Oceania: 131
- Europe: 152
- Middle East: 14

Around 80% of the countries changed their original report after the clarifications:

- Data sources
- Quantities
- Antimicrobial growth promoters
- Reporting Option

# Future Development (AMU Database System)



## Country Data Ownership

- Specific trend analysis
- Raised awareness
- Increased transparency



## Less burden for data entry

- Automatic calculations
- Data quality check
- Detailed data analysis

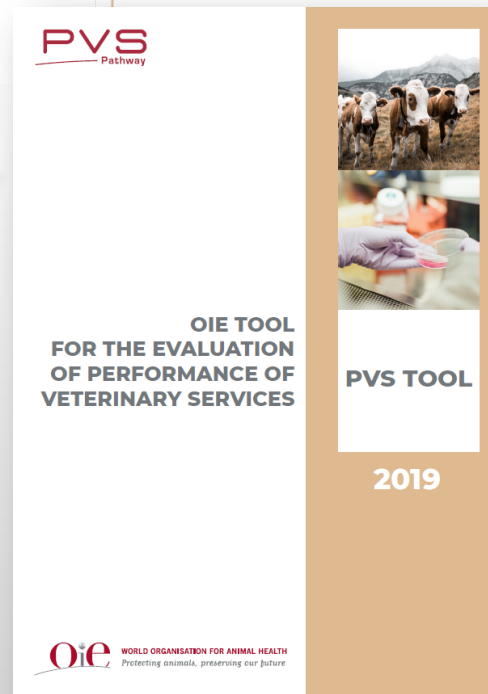
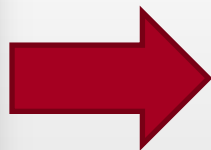
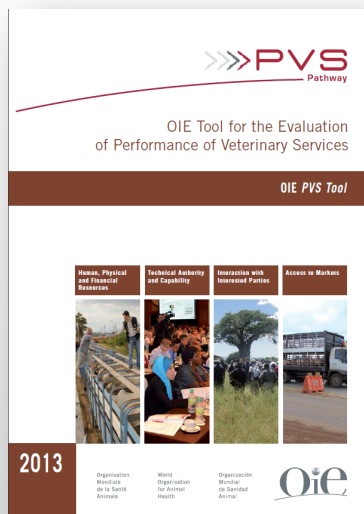


## Refinement of Information

- Species level data
- Farm level data
- Connection with other data sources:
  - ✓ OIE-WAHIS (World Animal Health Information System)
  - ✓ **TISSA (Tripartite Integrated System for Surveillance on AMR and Antimicrobial Use)**
  - ✓ PVS (Performance of Veterinary Services)



# The OIE PVS Tool ( 2019 Edition)



## II-9. ANTIMICROBIAL RESISTANCE (AMR) AND ANTIMICROBIAL USE (AMU)

### DEFINITION

The authority and capability of the VS to manage AMR and AMU, and to undertake surveillance and control of the development and spread of AMR pathogens in animal production and animal origin food products, via a One Health approach<sup>18</sup>.

### LEVELS OF ADVANCEMENT

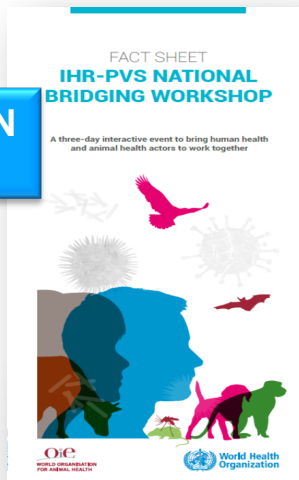
1. The VS cannot regulate or control AMR and AMU, and have not developed or contributed to an AMR action plan covering the veterinary domain.
2. The VS are contributing or have contributed to a national AMR action plan. The action plan has initiated some activities to collect AMU/AMR data or control AMR e.g. awareness campaigns targeting veterinarians or farmers on the prudent use of antimicrobial agents (antimicrobials). The use of antimicrobials for growth promotion is discouraged.
3. The VS have defined a national AMR action plan in coordination with the Public Health authorities and other stakeholders, and are implementing some AMU/AMR surveillance and regulations. The use of antimicrobials for growth promotion is prohibited.
4. The VS are implementing a comprehensive AMR action plan based on risk, including AMR surveillance of the most important pathogens for animal health or food-borne diseases, the monitoring of AMU, and the prudent use of antimicrobials in animals (especially the use of critically important antimicrobials). The use of antimicrobials for growth promotion does not occur.
5. An effective national AMR action plan covering the veterinary domain is regularly audited, reviewed and updated by the VS with the Public Health authorities and other stakeholders, using the results of AMU/AMR surveillance. The scale and type of antimicrobial usage in animals poses minimal risk of AMR and alternative solutions for the control of diseases in animals are being implemented.

= A Critical Competency dedicated to AMR



# IHR/PVS National Bridging Workshops to have a greater focus on AMR

**COLLABORATION**  
with



## ORIENTATION

- A Sub-Regional Orientation Training Workshop
- B Sub-Regional Lessons Learnt Workshop

## EVALUATION

- A PVS Evaluation
- B PVS Evaluation Follow Up
- C PVS Self-Evaluation
- D PVS Evaluation (Aquatic)
- E Specific Content (e.g. PPR, rabies)

OPTIONS

## PLANNING

- A PVS Gap Analysis
- B PVS Strategic Planning Support

## TARGETED SUPPORT

- A One Health Integration (PVS/IHR)
- B Veterinary Legislation Support
- C Sustainable Laboratories
- D Veterinary and Veterinary Paraprofessional Education
- E OIE National Focal Points Training
- F Public-Private Partnerships



# The Veterinary Legislation Support Programme

COLLABORATION  
with



## ORIENTATION

- A Sub-Regional Orientation Training Workshop
- B Sub-Regional Lessons Learnt Workshop

## EVALUATION

- A PVS Evaluation
- B PVS Evaluation Follow Up
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# Antimicrobial Resistance Multi-Partner Trust Fund



## Tripartite Project AMR MPTF

### Development and Piloting of a Tripartite One Health Assessment Tool for **AMR-relevant Legislation**

#### *Key activities:*

- 1. Development of a Tripartite One Health Assessment Tool for AMR relevant Legislation*
- 2. Online experts meeting to discuss and finalize the Tool*
- 3. Piloting the Tool at the national level*
- 4. Multi-country workshops (one virtual, one field)*
- 5. Finalization and validation*
- 6. Publication and outreach*

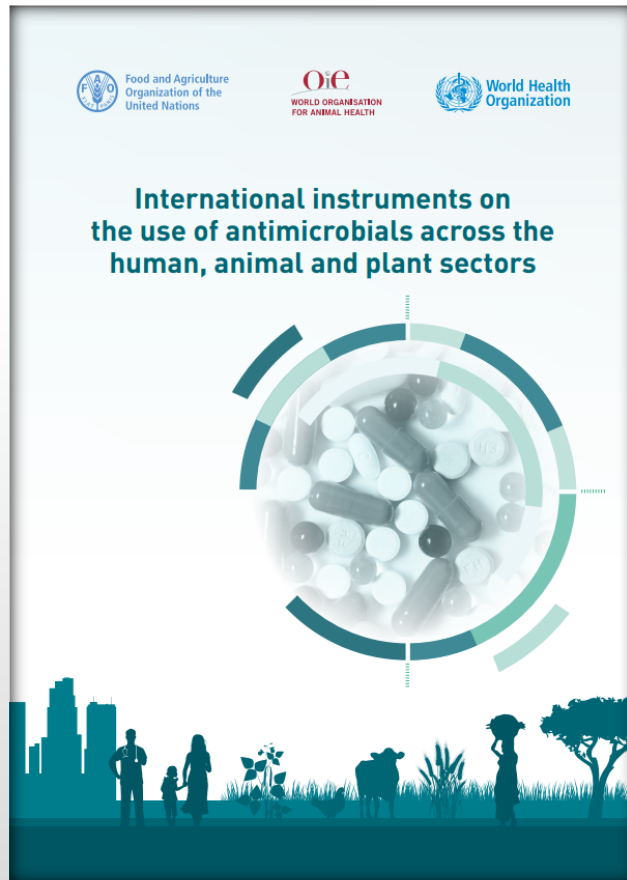
# Multi-Partner Projects approved by the Steering Committee



The Steering Committee approved the following four global proposals in October 2020:

- (1) Legal frameworks,
- (2) Environment,
- (3) Monitoring & Evaluation,
- (4) TISSA.

# Tripartite publication



Content	
	pagenumbers will be inserted when pageflow is approved
List of figures, tables and boxes .....	
Acknowledgements .....	
List of abbreviations .....	
1 Introduction .....	
1.1 Objective .....	
1.2 Background .....	
2 Scope and methodology .....	
2.1 Scope .....	
2.2 Methodology .....	
3 Compilation of instruments on antimicrobial use .....	
3.1 Overview and analysis of instruments on human use .....	
3.2 Overview and analysis of instruments on animal use .....	
3.3 Overview and analysis of instruments on plant use .....	
3.4 Overview and analysis of antimicrobial use and the environment .....	
4 Monitoring implementation of international standards on the use of antimicrobials .....	
4.1 Implementation at the national level .....	
4.2 Tripartite monitoring of standards implementation .....	
4.3 Monitoring implementation of standards for human use .....	
4.4 Monitoring implementation of standards for animal use .....	
4.5 Monitoring implementation of standards for plant use .....	
4.6 Monitoring implementation of standards for the environment .....	
Annex I: List of international instruments on the use of antimicrobials across the human sector .....	
Annex II: List of international instruments on the use of antimicrobials across the animal sector .....	
Annex III: List of international instruments on the use of antimicrobials across the plant sector .....	
Annex IV: Questions in TACSS 4.0 (2019–2020) regarding standards on the use of antimicrobials .....	

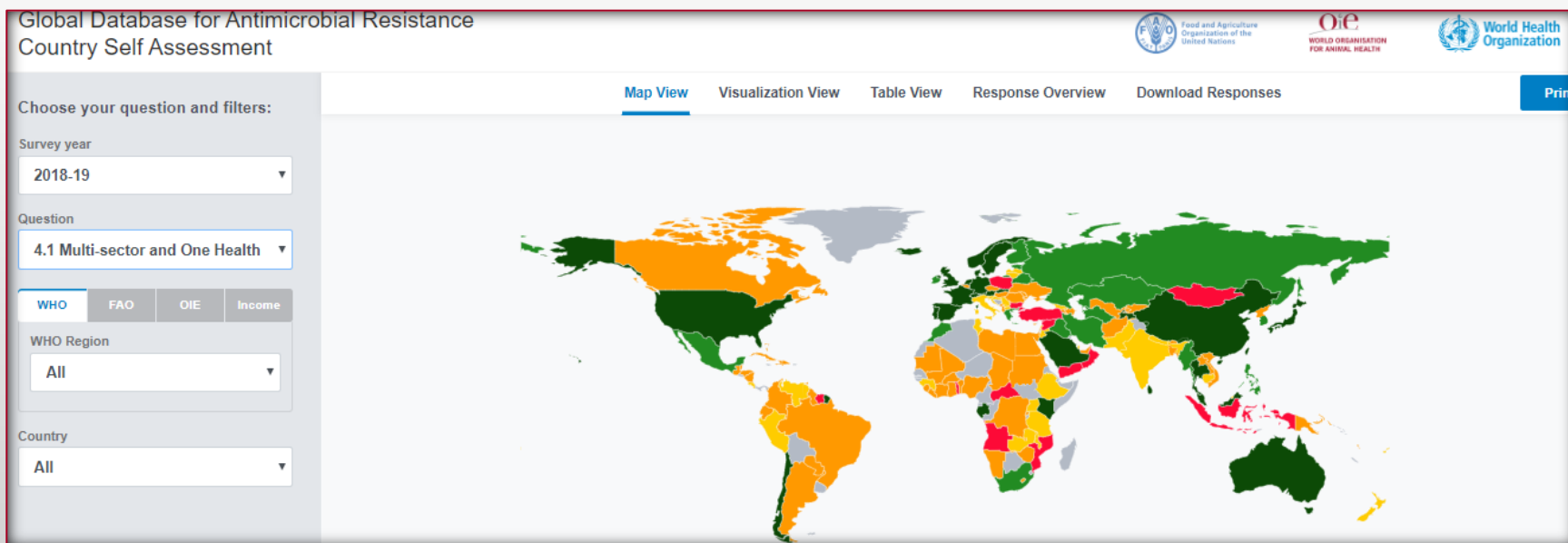
DRAFT

# Tripartite AMR Country Self-Assessment Survey (TrACSS)

WHO, FAO and OIE developed a monitoring questionnaire to review / summarise country progress, to contribute to global level reporting. The country responses also serve to guide follow-up actions and identify areas where support maybe required.

Launched in 2017: 4 rounds of TrACSS data available with 5<sup>th</sup> round to be launched in November.

[Amrcountryprogress.org](http://Amrcountryprogress.org)



# Tripartite TrACCS report 2019-20: Highlights

- **NAPS:** 88% (120/136 reporting countries) have a NAP developed and being implemented.
- **Multisectoral Coordination:** 93% (126/136 reporting countries) have representatives of human health and animal health in working groups.
- **Surveillance for resistance:** gradual increase countries collecting data on AMR.
  - 74% countries have national AMR surveillance activities for human health;
  - 100 countries have enrolled in the Global AMR and AMU surveillance System (GLASS) established by WHO.
  - 68.9% collect at least some AMR data on animals, and 41.7% of countries have systematic data collection on resistance in animals.
  - 69% of the countries collect at least some AMR data from the food sector (animal, plant), and 40.4% of countries have systematic data collection in the food production sector.



# Tripartite TrACCS report 2019-20: Highlights

- **Surveillance of consumption / use:** gradual increase in countries with a national monitoring system for antimicrobial sale and use in the human and animal health sectors, and antimicrobial pesticide use in plant production.
  - 83 countries for animal health (153 countries participating in OIE 5<sup>th</sup> round of AMU data collection)
  - 76 countries for human health
  - 49 countries had a monitoring system for collecting and reporting the total quantity of pesticides, including antimicrobial pesticides.
- **Challenge - Multisectoral coordination and collaboration:**
  - Better communication and processes to strengthen collaboration across and within sectors
  - Validation discrepancies when triangulating Tripartite reporting mechanisms indicate gaps in communication and coordination efforts between sectors.

# Thank you for your attention



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<https://doi.org/10.20506/AMR.3138>

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