Antimicrobial Usage in Animals:

Surveillance Insights and Mitigation Strategies to Combat Antimicrobial Resistance

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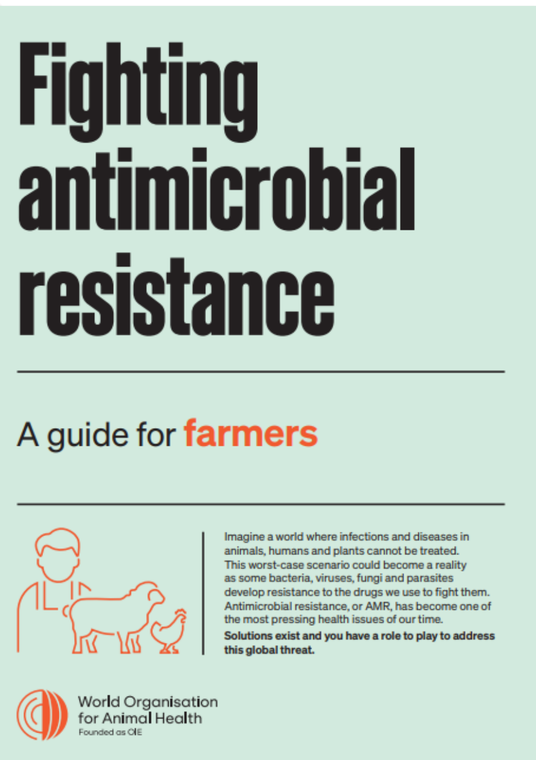
World Organisation for Animal Health

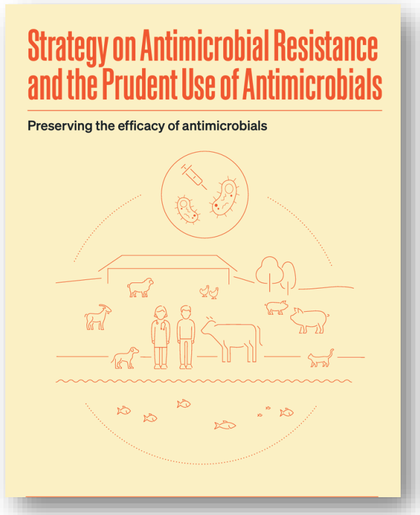
ANTIMICROBIAL RESISTANCE

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites no longer respond to antimicrobial agents.
As a result of drug resistance, antibiotics and other antimicrobial agents become ineffective, and infections become difficult or impossible to treat, increasing the risk of disease spread, severe illness and death.









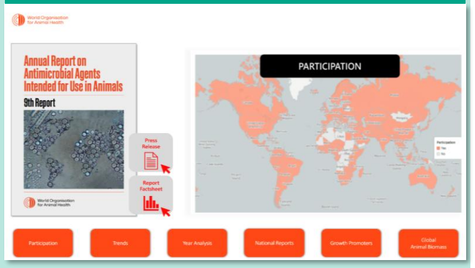
Improve awareness and understanding

- Public–Private Partnership (PPP) Workshop on AMR Communication
- Hybrid seminar on AMR awareness for the younger generation
- Workshop on mapping stakeholders and data sources for monitoring antimicrobials



Strengthen surveillance and research

ANImal antiMicrobial USE (ANIMUSE) Global Database



Track and Report Unsafe VETerinary Products (TRUVET)



The STAR-IDAZ Research Community

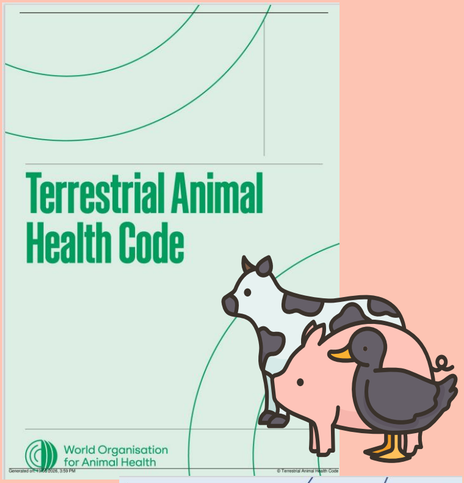
Support Governance and build capacity

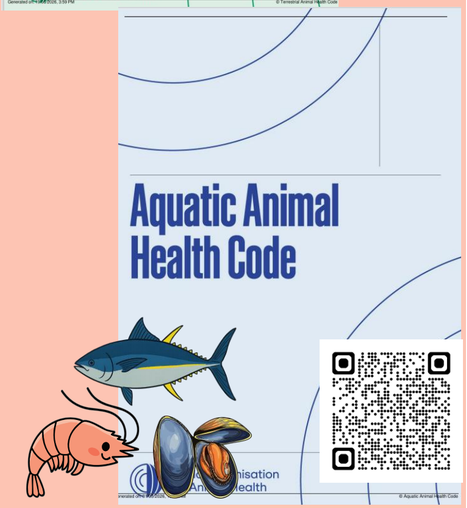


- Regional Seminar for WOAH National Focal Points for Veterinary Products
- Regional hands-on training on AMR surveillance
- Workshop on Substandard and Falsified Veterinary Products (SFVP)



Encourage implementation of international Standards





Codes and Manuals - WOAH



2024.c

The second UN General Assembly High-Level Meeting on antimicrobial resistance

Surveillance and Monitoring (all sectors)

Commitment 98

Encourage all countries to report quality surveillance data on antimicrobial resistance and antimicrobial use by 2030, through existing global surveillance systems through GLASS, ANIMUSE and InFARM for future use in **Quadripartite GISSA**

World Health Organization | World Organisation for Animal Health | Food and Agriculture Organization of the United Nations | UN environment programme

Four commitments for the animal health sector by 2030

As a member of the national Veterinary Services, your work plays a central role in ensuring their achievement.

Reduced quantities of antimicrobials used in animals

'Strive to meaningfully reduce [...] the quantity of antimicrobials used globally in the agri-food system *[...] taking into account the [...] standards, guidance and recommendations of the World Organisation for Animal Health.'* (69)

Prudent and responsible use of antimicrobials in animals

'Commit to ensure that the use of antimicrobials in animals and agriculture is done in a prudent and responsible manner *in line with [...] the standards, guidance and recommendations of the World Organisation for Animal Health.'* (70)

Prioritisation of prevention with a focus on animal vaccination strategies

'Ensure [...] that animal vaccination strategies are defined with an implementation plan *[...] taking into account WOAH's list of priority diseases for which vaccines could reduce antimicrobial use [...].'* (72)

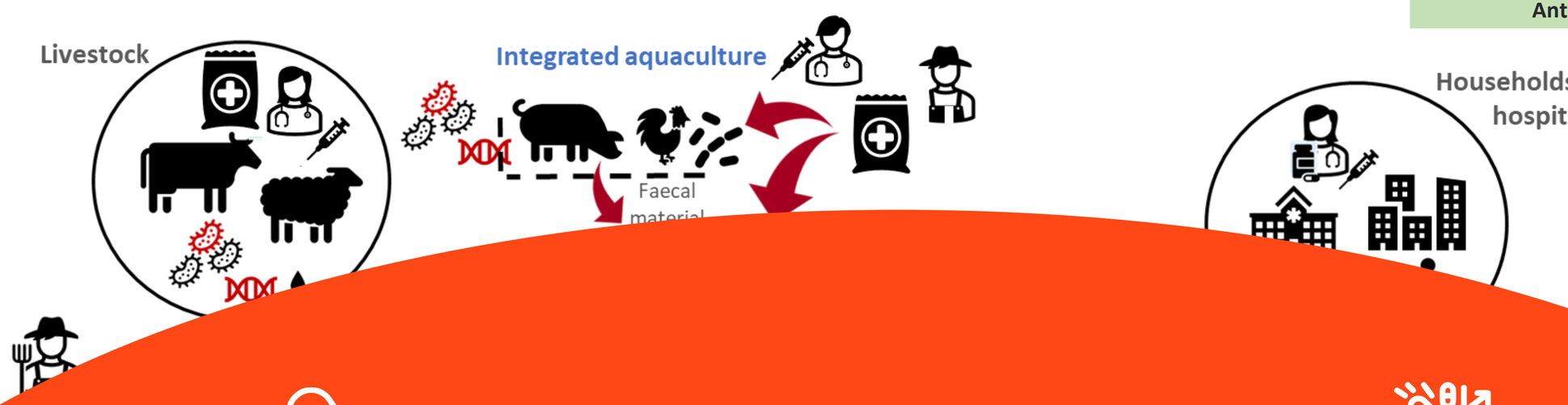
Investment to ensure access to essential veterinary services

'Invest in animal health systems *to support equitable access to essential veterinary services, improve animal health and appropriate management practices to prevent infections [...].'* (73)

Antimicrobial use

Antimicrobial use

Antimicrobial use



AMU → AMR

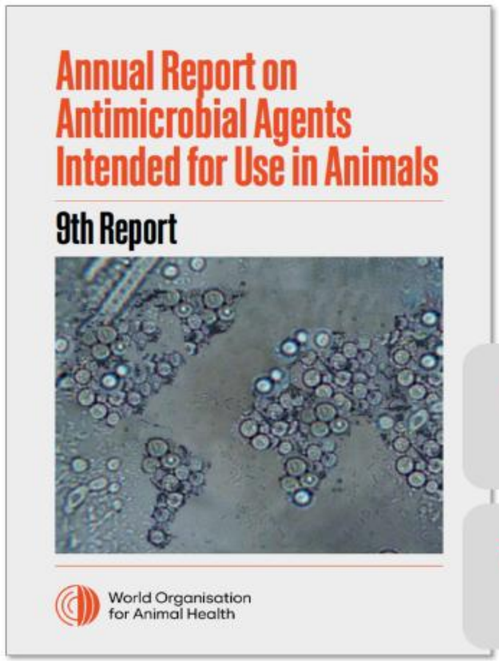


ANImal antiMicrobial USE (ANIMUSE) Global Database.

Since 2015, WOAH launched the data call to all its Members to provide AMU data in annual basis, based on WOAH Standards



World Organisation for Animal Health



Press Release

Report Factsheet



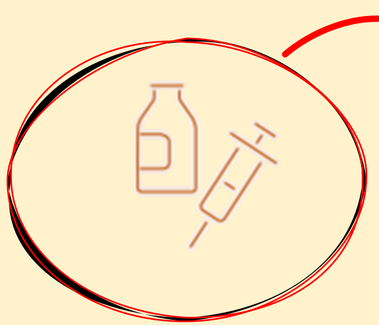
Participation | Trends | Year Analysis | National Reports | Growth Promoters | Global Animal Biomass

https://amu.woah.org/

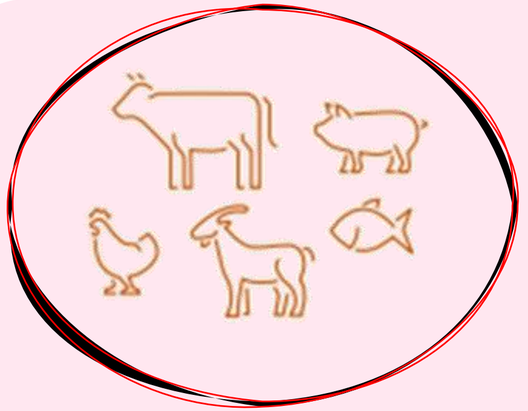
Antimicrobial Quantities and WOAH Animal Biomass

Antimicrobial use is expressed in mg/kg of animal biomass. It is determined by adjusting the quantity of antimicrobial agents reported (mg) by the live domestic animal biomass (kg) each year. This indicator can be compared between regions and over time.

$$\frac{\text{Antimicrobial agents } \textbf{(mg)}}{\text{Animal biomass } \textbf{(kg)}} =$$

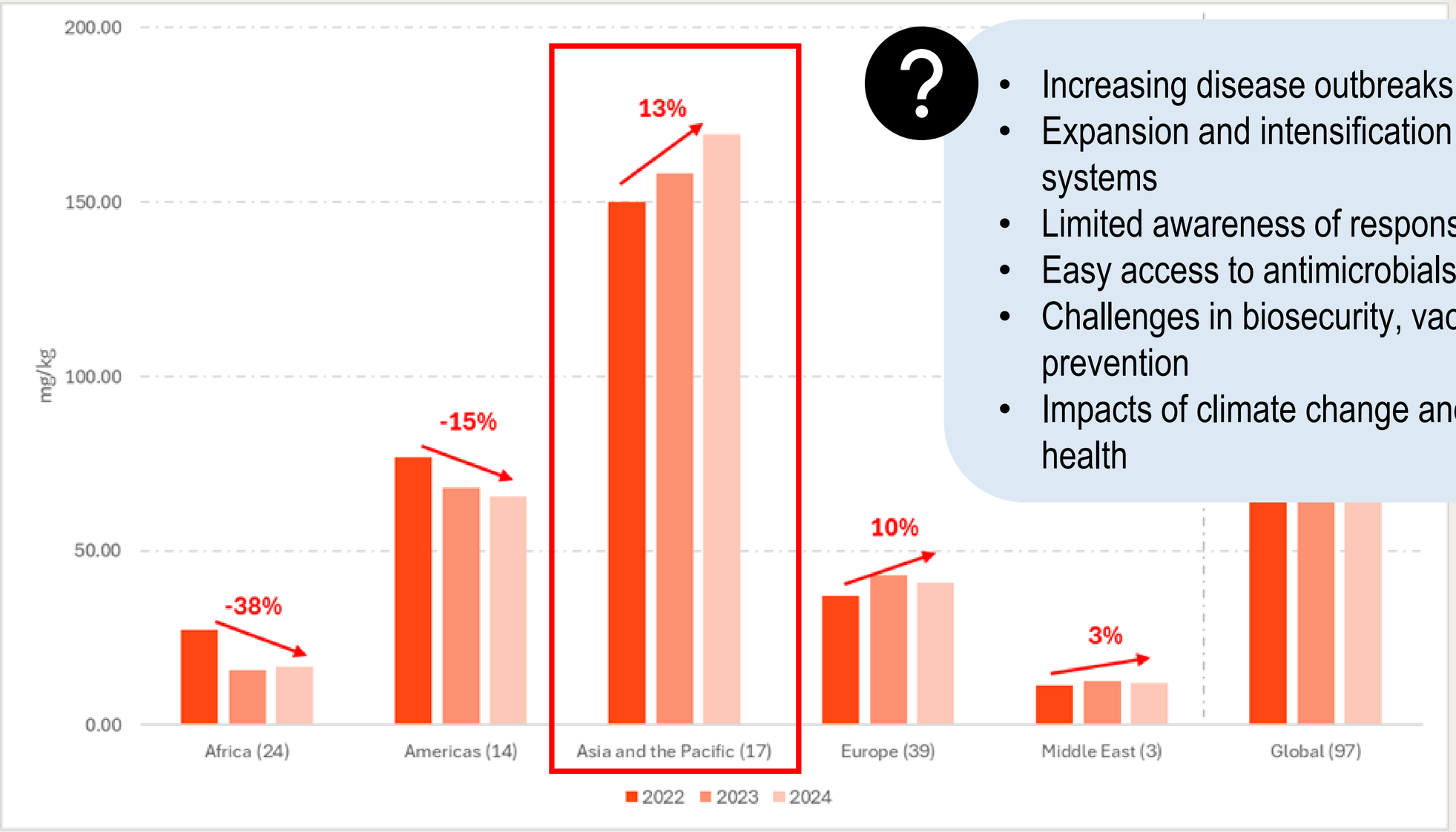


As **reported** by Members to the WOAH data collection



Total weight of food-producing animals

Our AMU Position: Where We Stand and How We're Performing



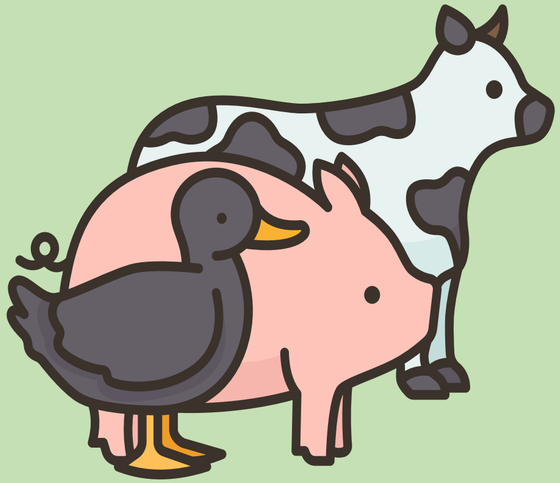
?

- Increasing disease outbreaks
- Expansion and intensification of animal production systems
- Limited awareness of responsible antimicrobial use
- Easy access to antimicrobials without sufficient control
- Challenges in biosecurity, vaccination, and disease prevention
- Impacts of climate change and global warming on animal health

Terrestrial and aquatic food-producing animals

Terrestrial food-producing animals

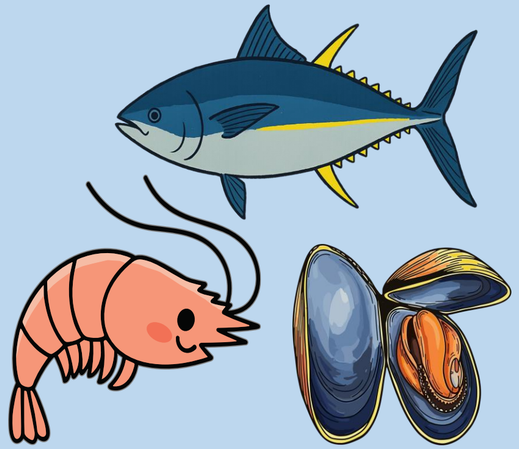
47% covered by AMU data



98 milligrams of antimicrobials adjusted by kilograms of animal biomass

Aquatic food-producing animals

64% covered by AMU data



21 milligrams of antimicrobials adjusted by kilograms of animal biomass

Use of antimicrobial growth promoters (AGPs)- overview

34

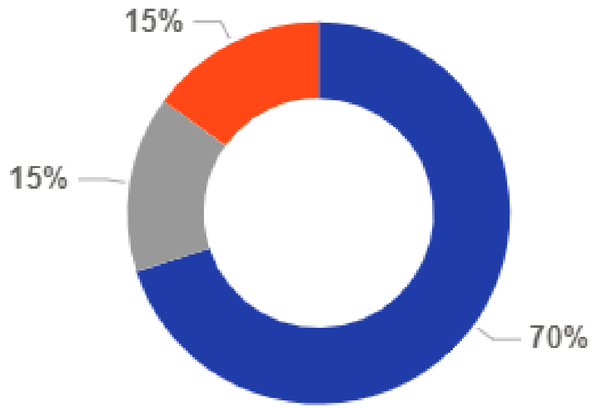
Members still using AGPs

USE

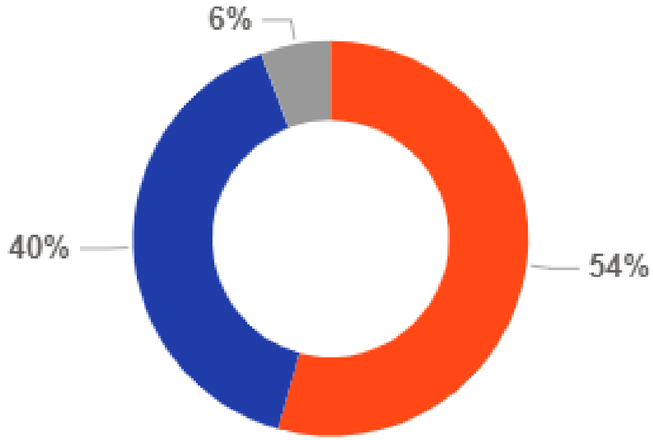
NOT USE

UNKNOWN

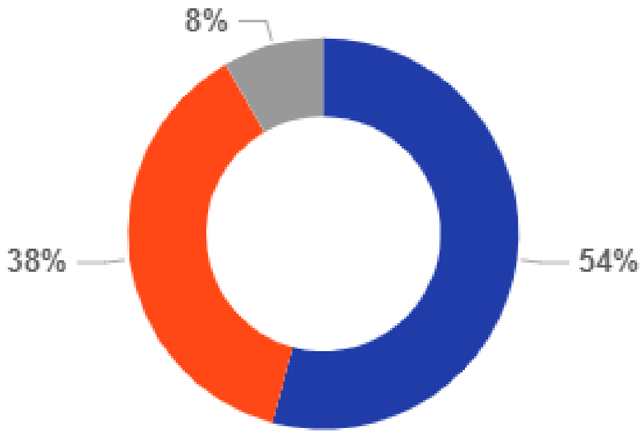
Africa (n= 40)



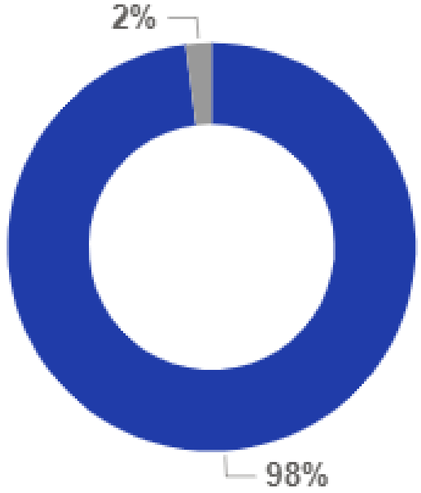
Americas (n= 32)



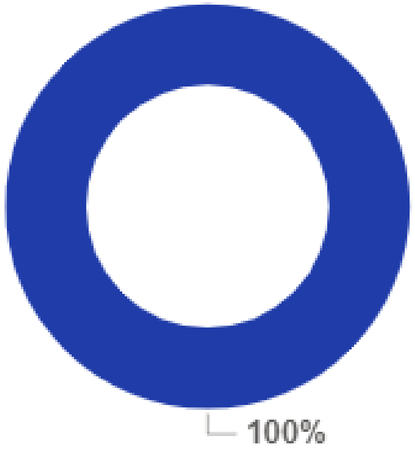
Asia (n= 24)



Europe (n= 49)



Middle East (n= 9)



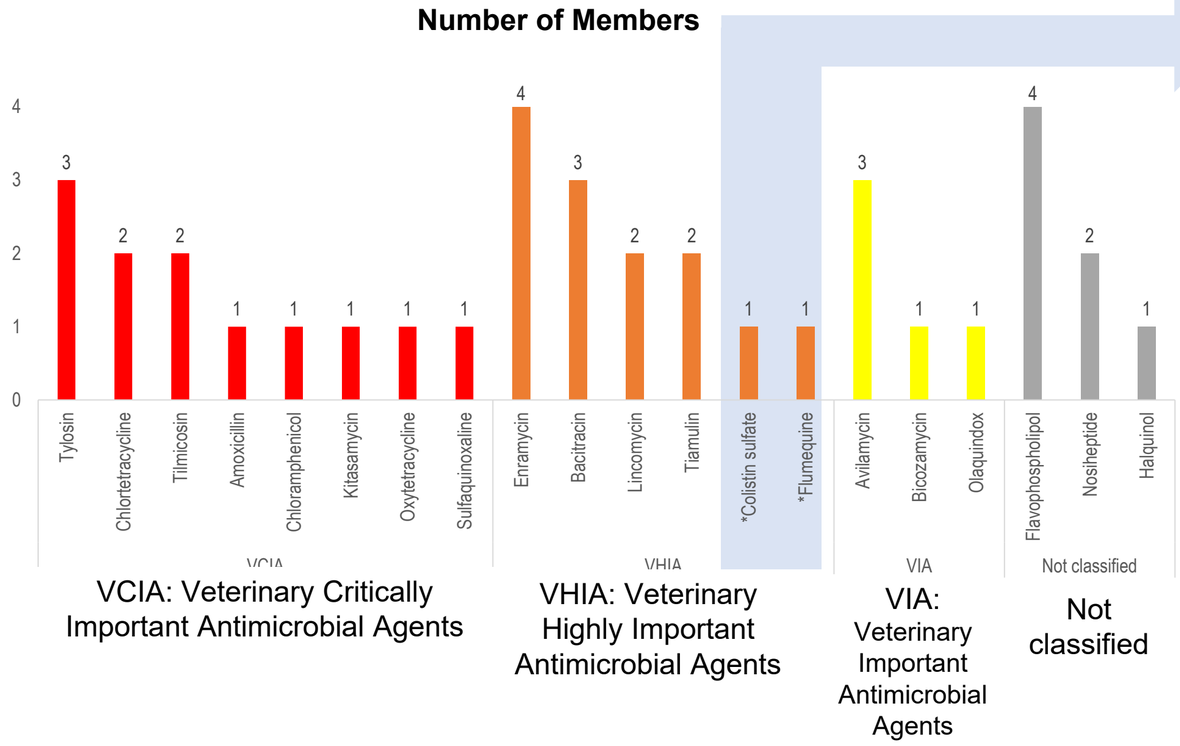
WOAH urges Veterinary Authorities and the animal industry to live up to their commitments regarding the use of antimicrobials as growth promoters

Our AMU Position: Where We Stand and How We're Performing

35% of those who submitted the data still used antimicrobial agents for growth promotion

WOAH List of Antimicrobial Agents of Veterinary Importance
(January 2025)

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



VCIA: Veterinary Critically Important Antimicrobial Agents

VHIA: Veterinary Highly Important Antimicrobial Agents

VIA: Veterinary Important Antimicrobial Agents

Not classified

In the WOAH List, some antimicrobial classes, subclasses and specific antimicrobial agents are considered to be **Highest Priority Critically Important (HPCIA) by WHO**; this is currently the case for

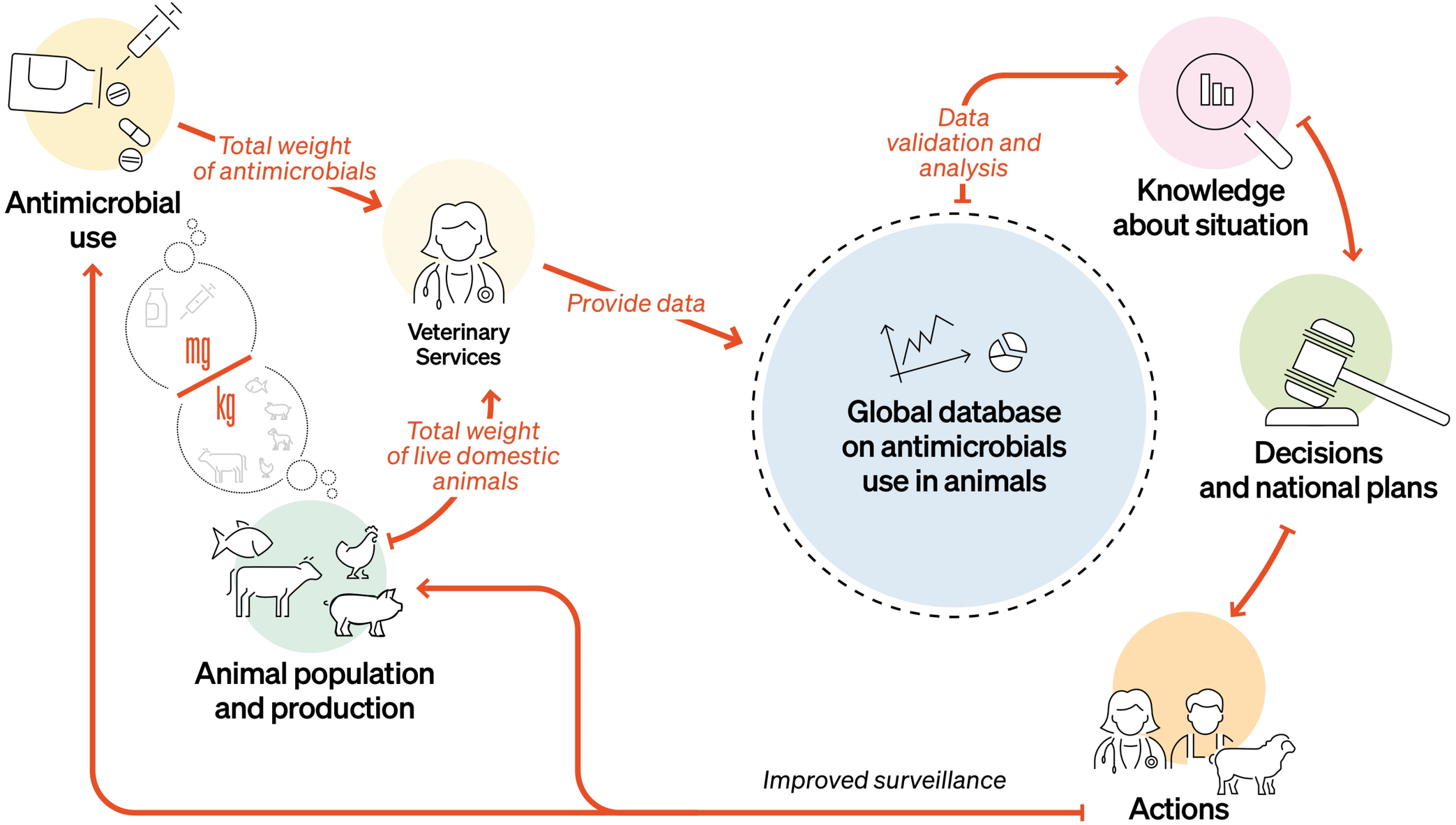


- ***Fluoroquinolones***
- ***third and fourth generation Cephalosporins***
- ***Colistin (Polymyxin E)***
- ***Phosphonic acid derivatives (e.g., Fosfomycin)***

Urgently prohibit their use as growth promoters.

World Organisation for Animal Health
Founded as OIE

ANTIMICROBIAL USE: FROM DATA TO ACTION



Quadripartite Global Systems

1 Human System

World Health Organization

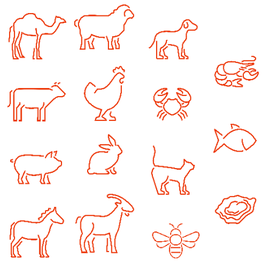


GLASS
Global Antimicrobial Resistance and Use Surveillance System

AMR/AMU in human

2 Animal and Agricultural System

World Organisation for Animal Health



ANIMUSE Global Database

AMU in all animals and AMR in non-food-producing animals

Food and Agriculture Organization of the United Nations



InFARM The International FAO Antimicrobial Resistance Monitoring System

AMR in animals and food

AMU in plant production and protection

3 Environmental Health

UN environment programme

AMR in environment and residues

Global Integrated Surveillance for AMR and AMU (GISSA)

Track and Report Unsafe VETerinary Products



SFVPs

E.g.- Poor quality drugs
- Ineffective vaccine



Reduce capacity to manage animal diseases effectively

- Impact on animal health and welfare
- Food security
- Economic

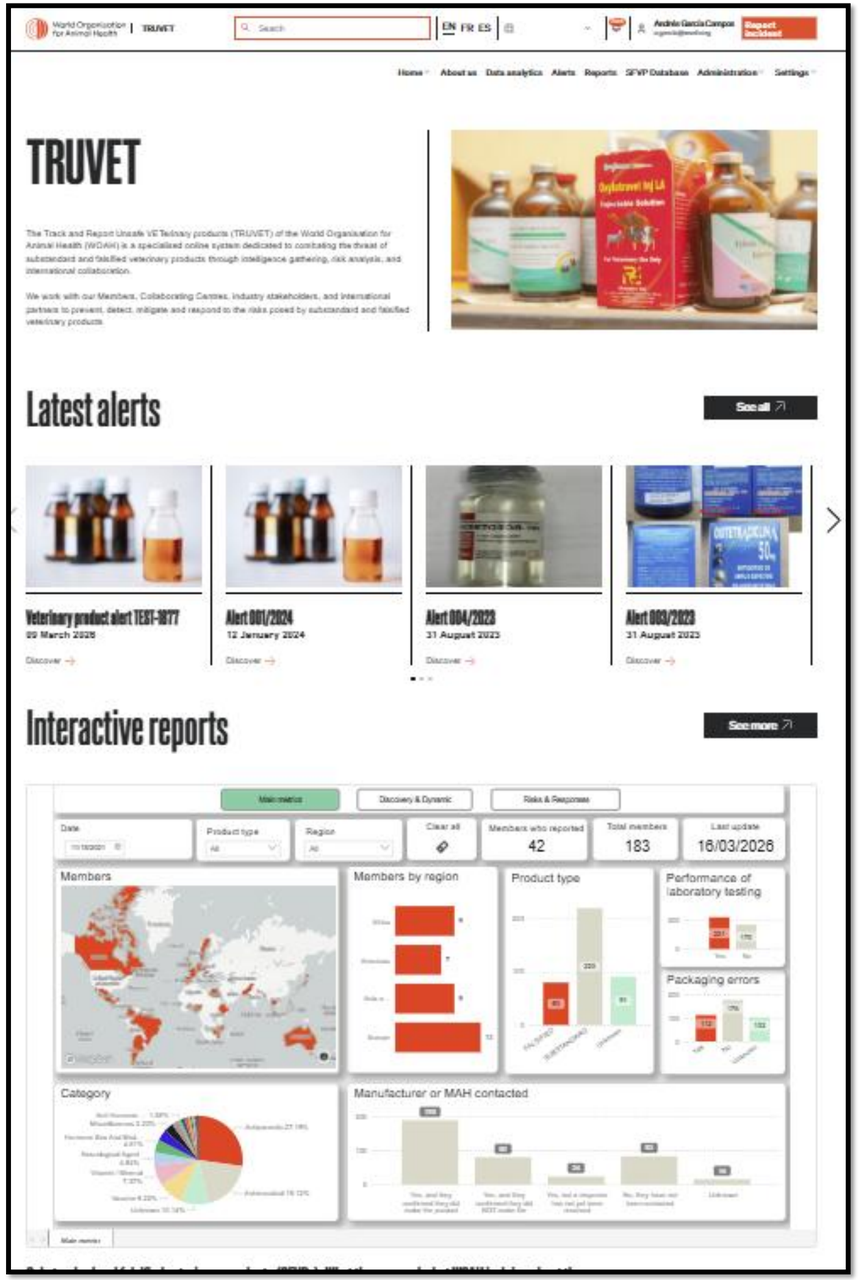


Biorisk

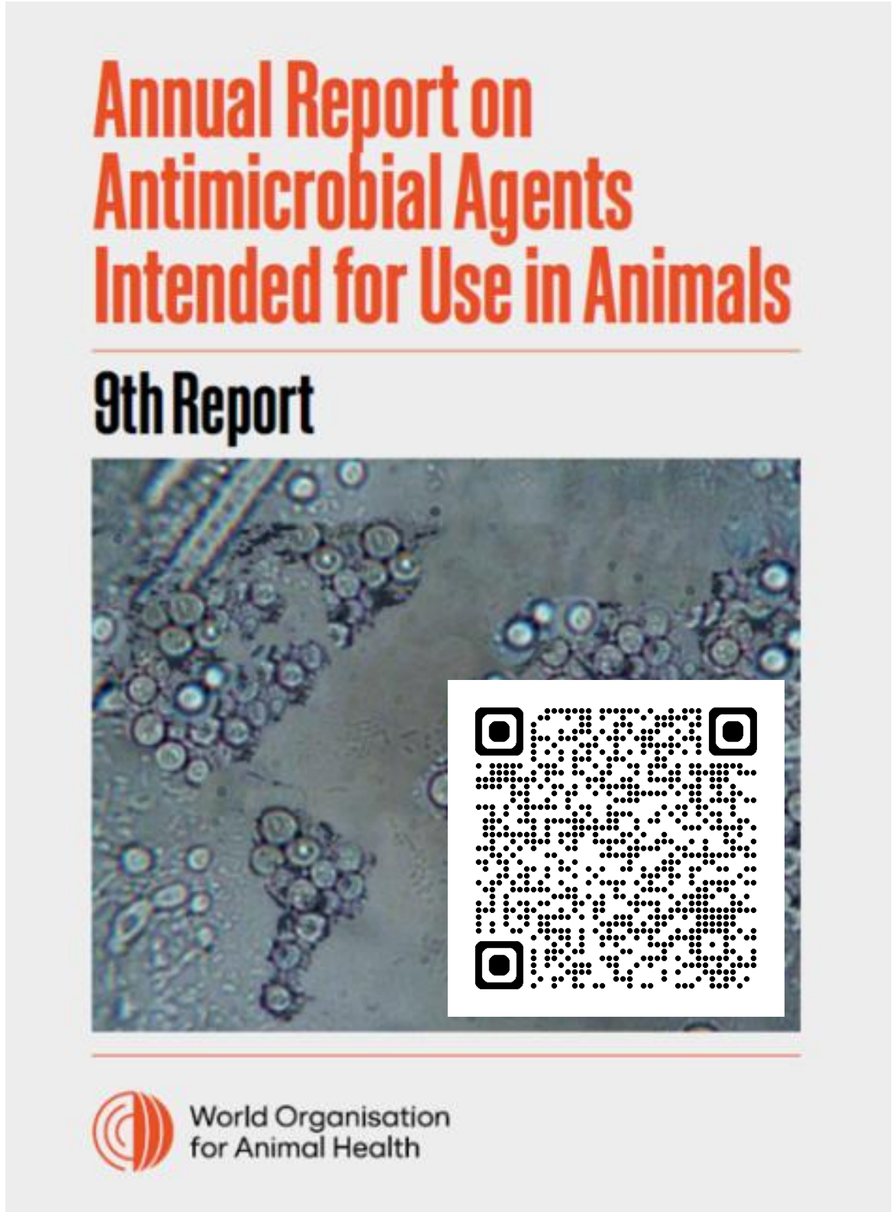
- Antimicrobial resistance (AMR)
- Spreading of diseases
- Adverse reactions
- Emerging/re-emerging diseases

Track and Report Unsafe VETerinary Products

- **TRUVET** will become the first global and long-term monitoring and surveillance platform for SFVP for animal sector.
- **TRUVET** captures data on SFVPs across all veterinary products, of which antimicrobials account for nearly a quarter (24.23%) of reported incidents.



Conclusion



Global antimicrobial use is increase.

Non-responsible practices remain.

Transparency on AMU is improving.

Thank you

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