World Organisation for Animal Health

WOAH AMU database (ANIMUSE) & 9th Round data collection results

Regional Workshop on Antimicrobial Resistance in Aquaculture for English-Speaking African Countries

13 - 15 August 2025
Harare, Zimbabwe

Dr Dante Mateo

Scientific Coordinator

AMR&VPD – WOAH

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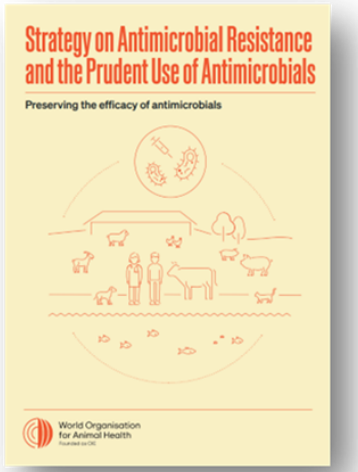
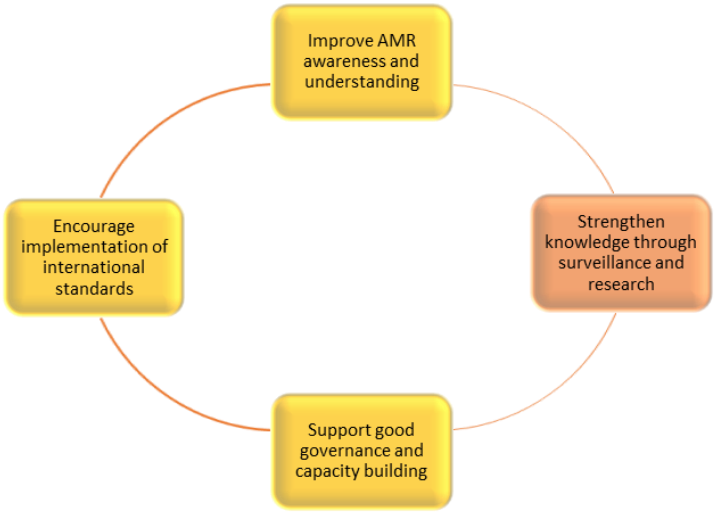
WOAH AMR Strategy – AMU surveillance

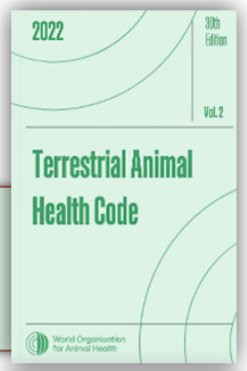




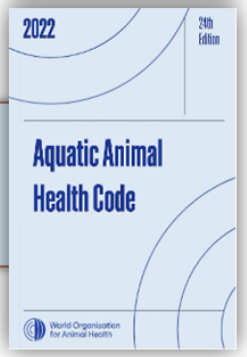
Strengthen knowledge through surveillance and research

- Support Members in **developing and implementing monitoring and surveillance systems**
- Build and maintain a global **database on the use of antimicrobial agents in food-producing and companion animals**, with associated analysis and annual reporting

Ch.6.9. **Monitoring of the quantities and usage patterns** of antimicrobial agents used in food-producing animals



Ch.6.3. **Monitoring of the quantities and usage patterns** of antimicrobial agents used in aquatic animals



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WOAH AMU global data collection

2013 – 1st Global Conference on Antimicrobial Resistance (AMR)

2015 – Launch of WOAH AMU data collection

2019 – Launch of WOAH Calculation Tool to assist Members

2022 – Launch of **ANIMUSE Global Database**

ANIMUSE Global Database

Only **41 Members** (27%) of the 152 responding had an official system in place collecting quantitative AMU data

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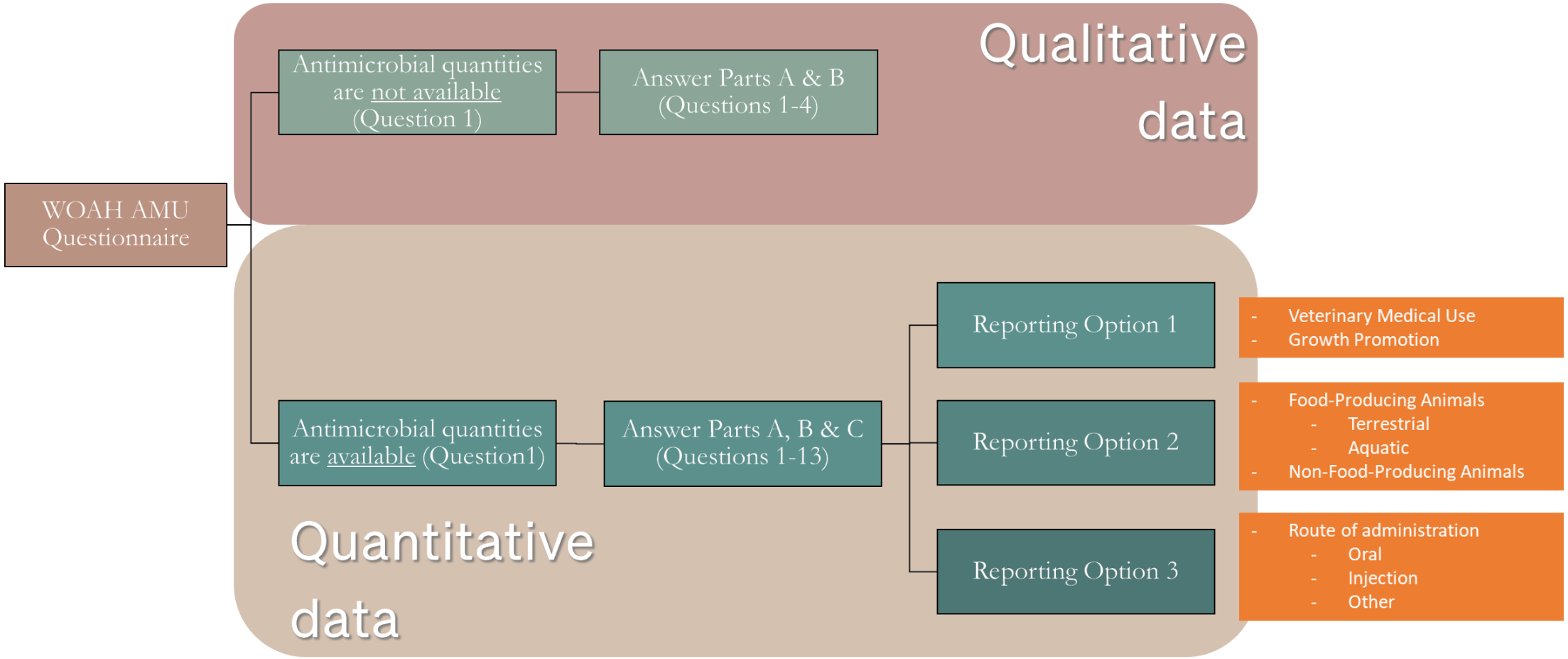
ANIMUSE: Qualitative & Quantitative data



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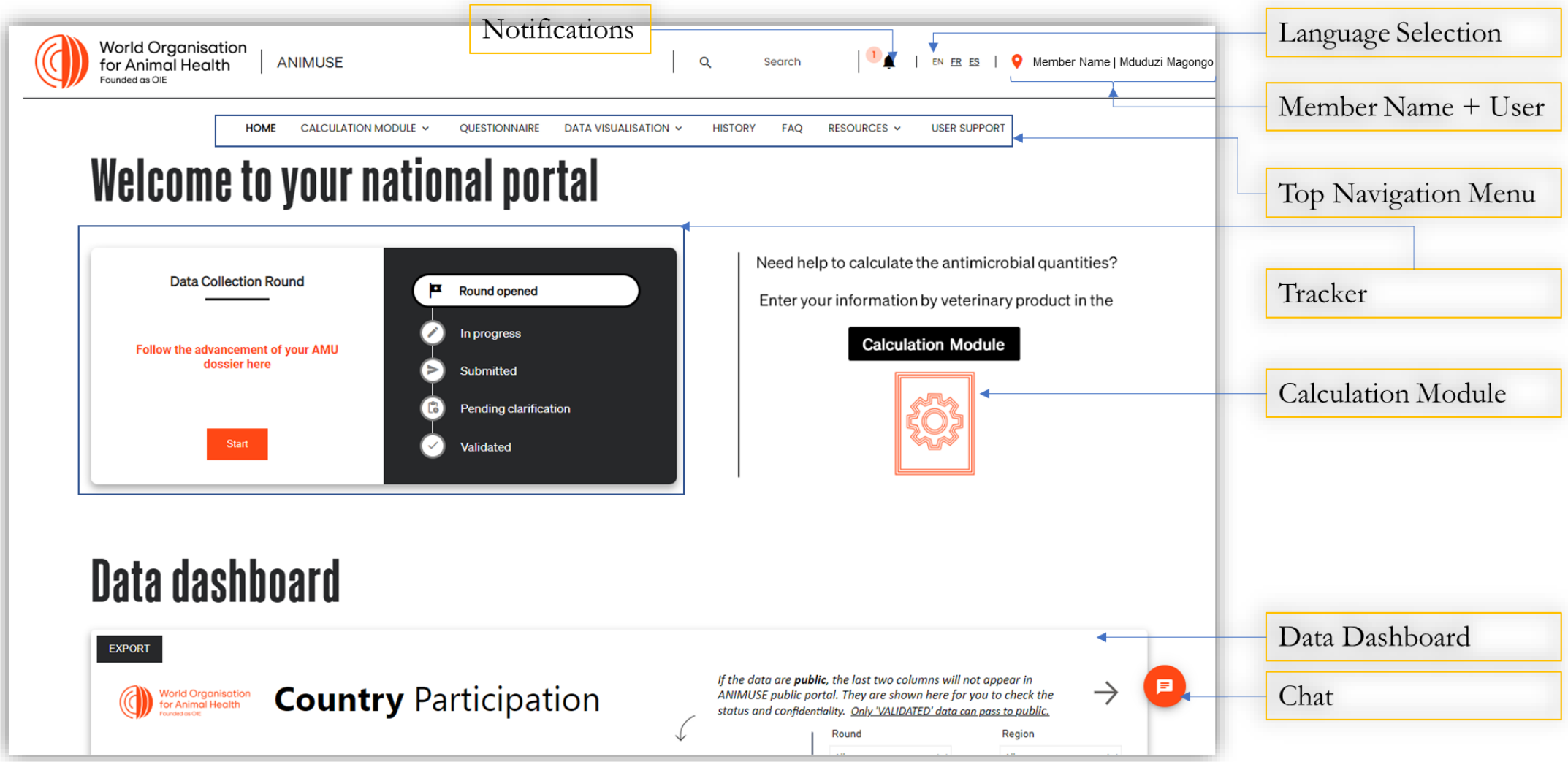
ANIMUSE – National portal: Home page



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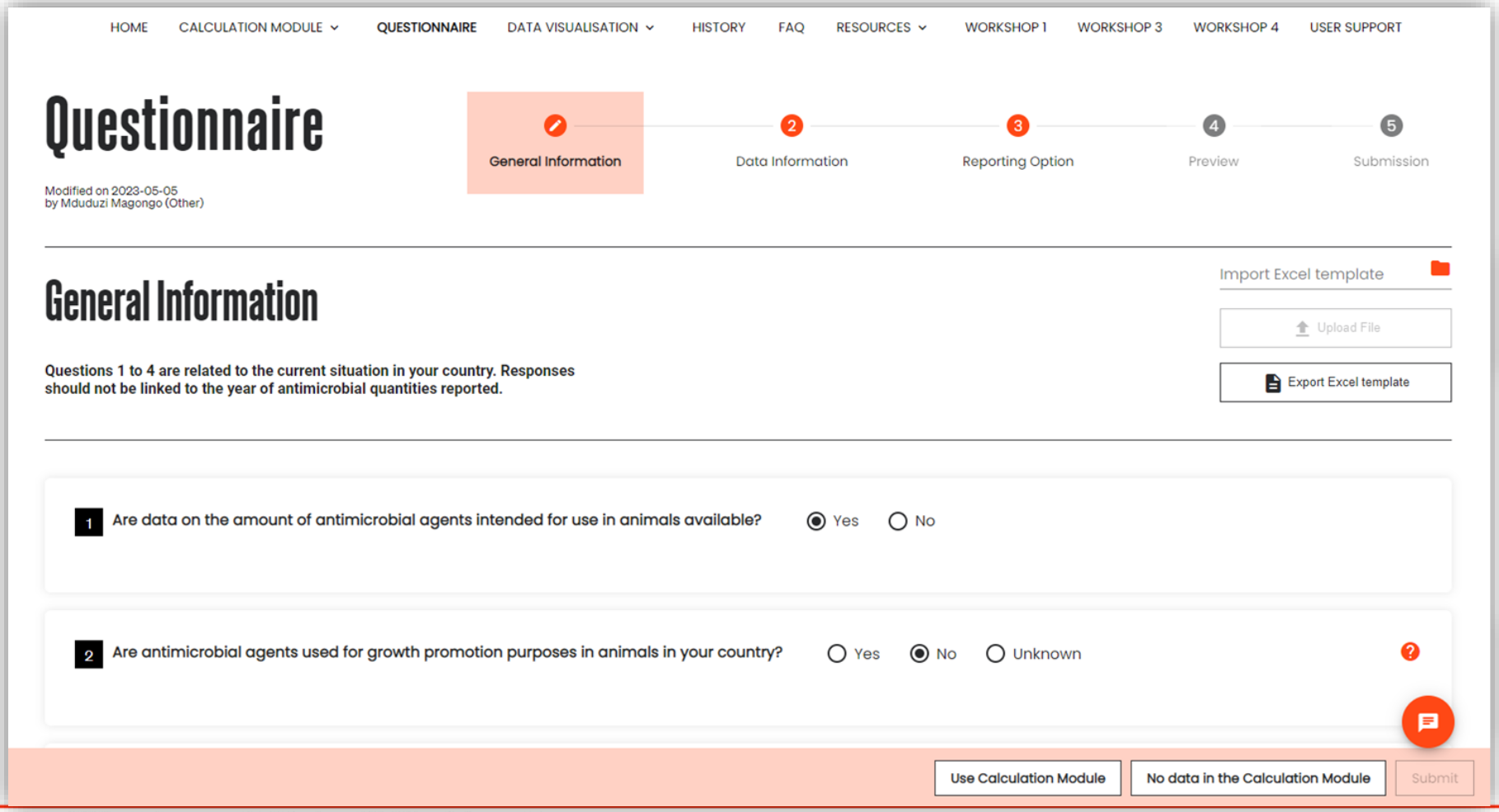
ANIMUSE – Questionnaire



Complete the AMU Questionnaire online

Complete excel template and inject

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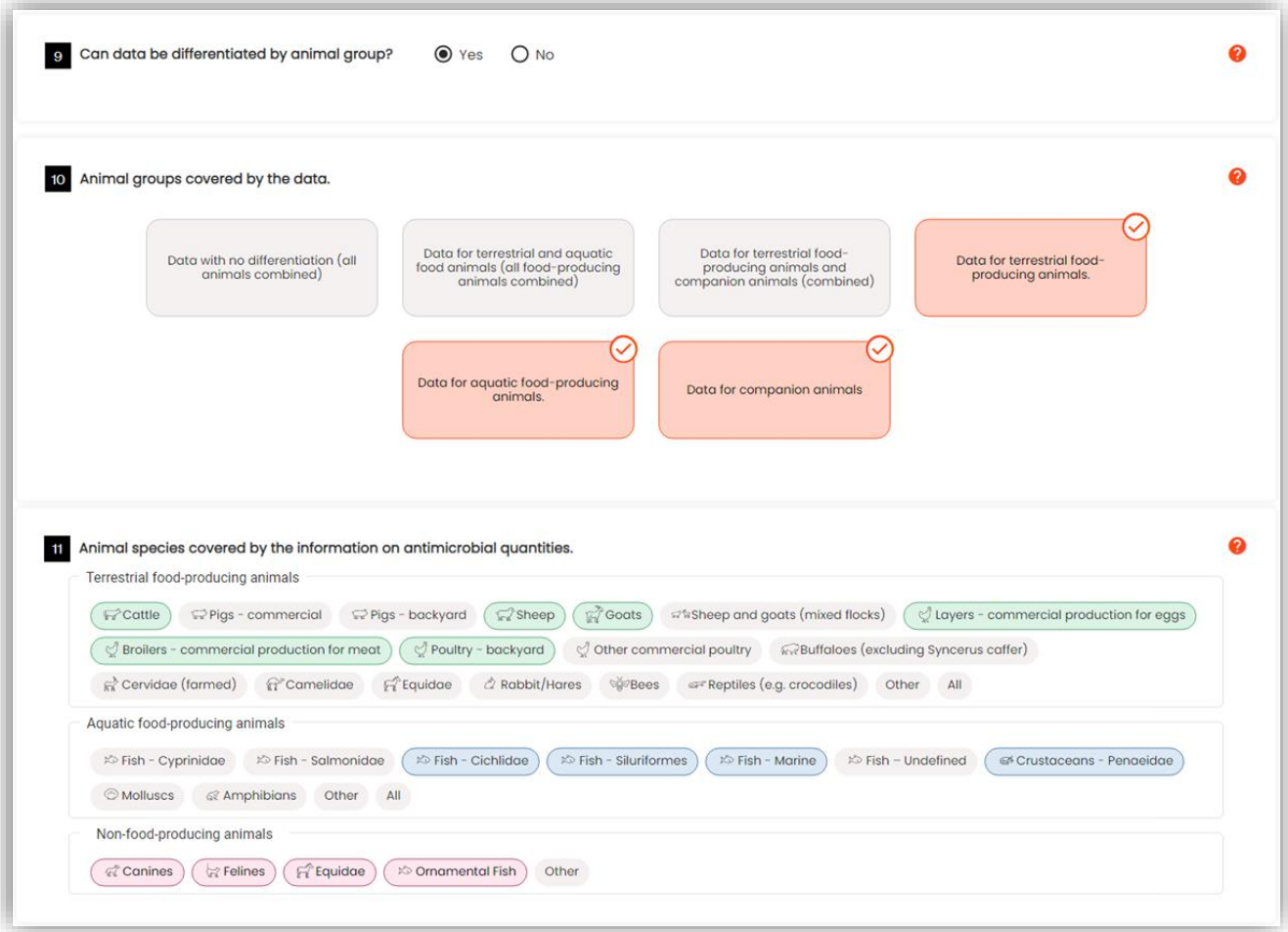
ANIMUSE – Questionnaire



9 Can data be differentiated by animal group? (•) Yes ( ) No

10 Animal groups covered by the data.

- Data with no differentiation (all animals combined)
- Data for terrestrial and aquatic food animals (all food-producing animals combined)
- Data for terrestrial food-producing animals and companion animals (combined)
- Data for terrestrial food-producing animals. ✓
- Data for aquatic food-producing animals. ✓
- Data for companion animals ✓

11 Animal species covered by the information on antimicrobial quantities.

Terrestrial food-producing animals

Cattle | Pigs - commercial | Pigs - backyard | Sheep | Goats | Sheep and goats (mixed flocks) | Layers - commercial production for eggs | Broilers - commercial production for meat | Poultry - backyard | Other commercial poultry | Buffaloes (excluding Syncerus caffer) | Cervidae (farmed) | Camelidae | Equidae | Rabbit/Hares | Bees | Reptiles (e.g. crocodiles) | Other | All

Aquatic food-producing animals

Fish - Cyprinidae | Fish - Salmonidae | Fish - Cichlidae | Fish - Siluriformes | Fish - Marine | Fish - Undefined | Crustaceans - Penaeidae | Molluscs | Amphibians | Other | All

Non-food-producing animals

Canines | Felines | Equidae | Ornamental Fish | Other

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ANIMUSE – Questionnaire

Veterinary Medical Use *(including prevention of clinical signs)*	Oral route *(kg)*	Injection route *(kg)*	Other routes *(kg)*
Terrestrial food-producing animals			
Aquatic food-producing animals			
All food-producing animals *(terrestrial and aquatic)*			
Non-food-producing animals			
All animal species			

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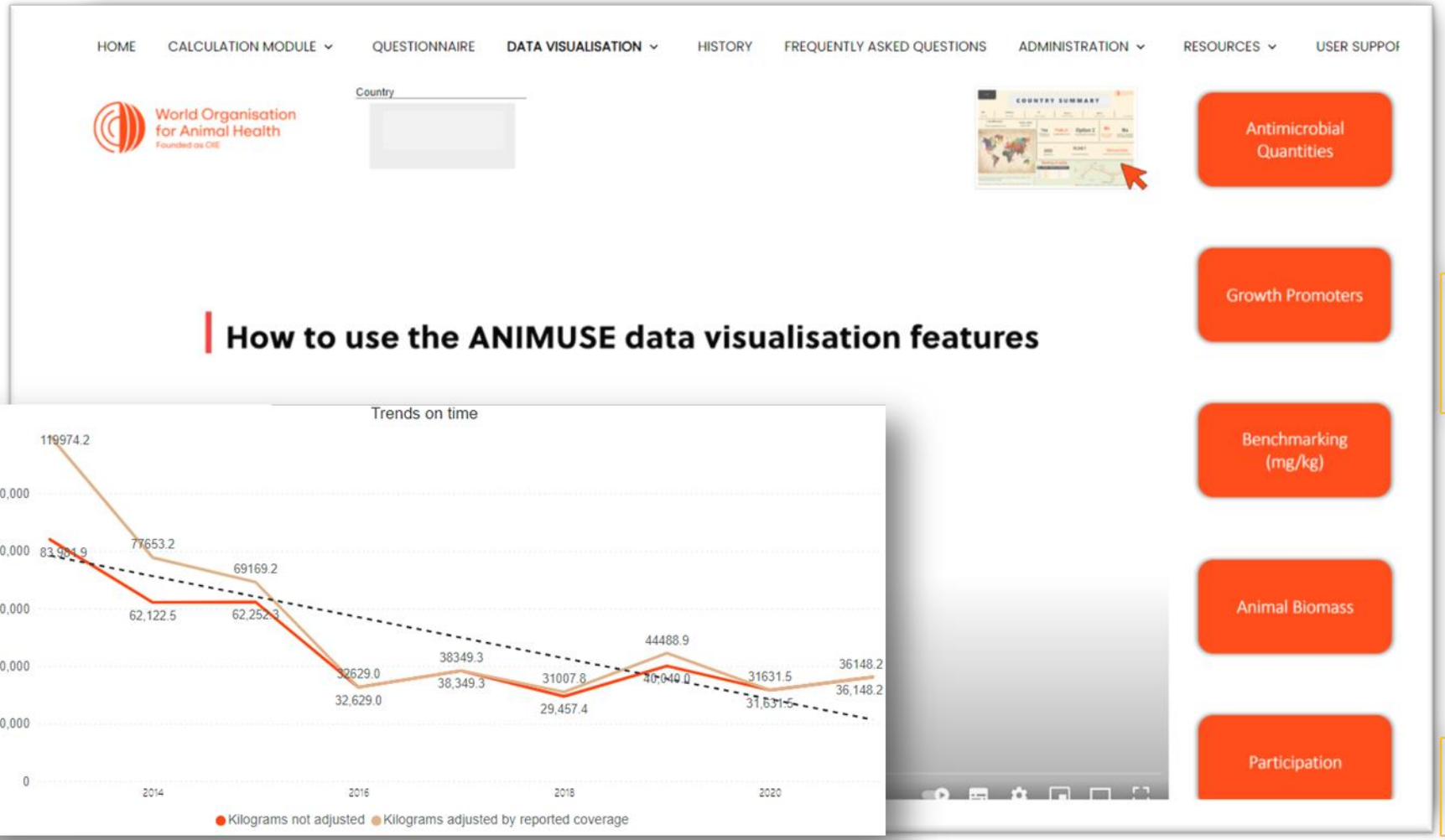
ANIMUSE – Data visualisation



Visualise your data through interactive dashboards

Make informed decisions

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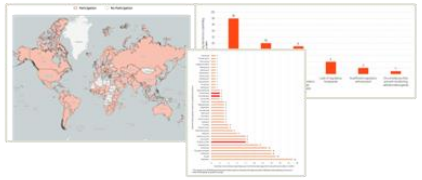
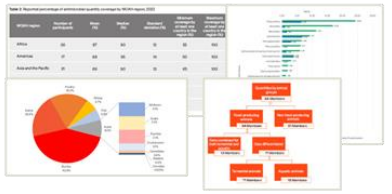
ANIMUSE – 9th AMU annual report

Published in May 2025

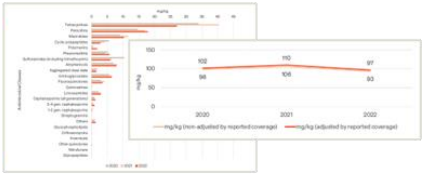
Results of the Ninth Rount (**157** Participants)



2022 Analysis of Antimicrobial Quantities (**107** Participants)



Trends from 2020 to 2022 (**85** Participants)



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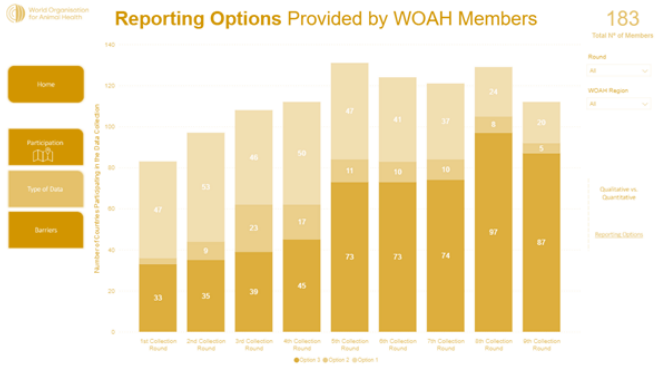
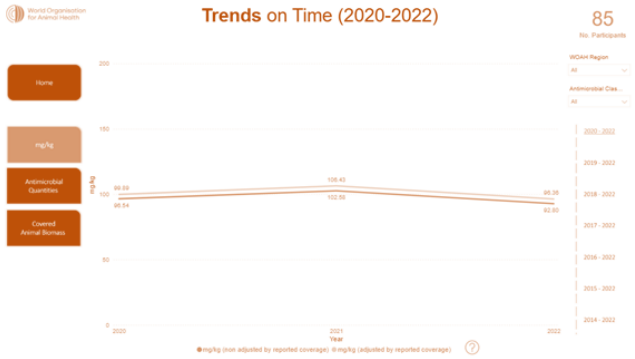
ANIMUSE – 9th AMU annual report

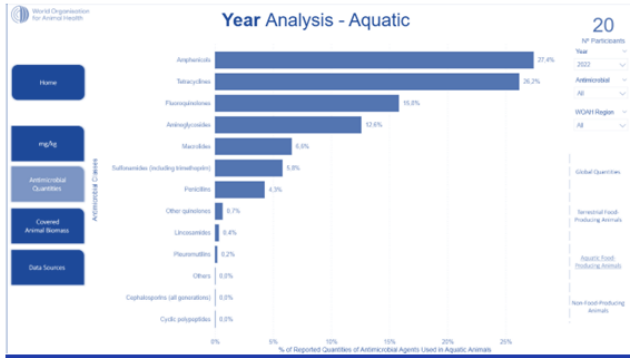


75% of Participants is now able to provide data by type of use, animals groups and routes of administration

(Reporting Option 3)



Collected data, representing 71% of the global animal biomass, show a **decrease** of **5%** in the mg/kg between 2020 and 2022.



111 Participants provided quantitative data for 2022 and **only 18** were able to provide specific data for aquatic animals.

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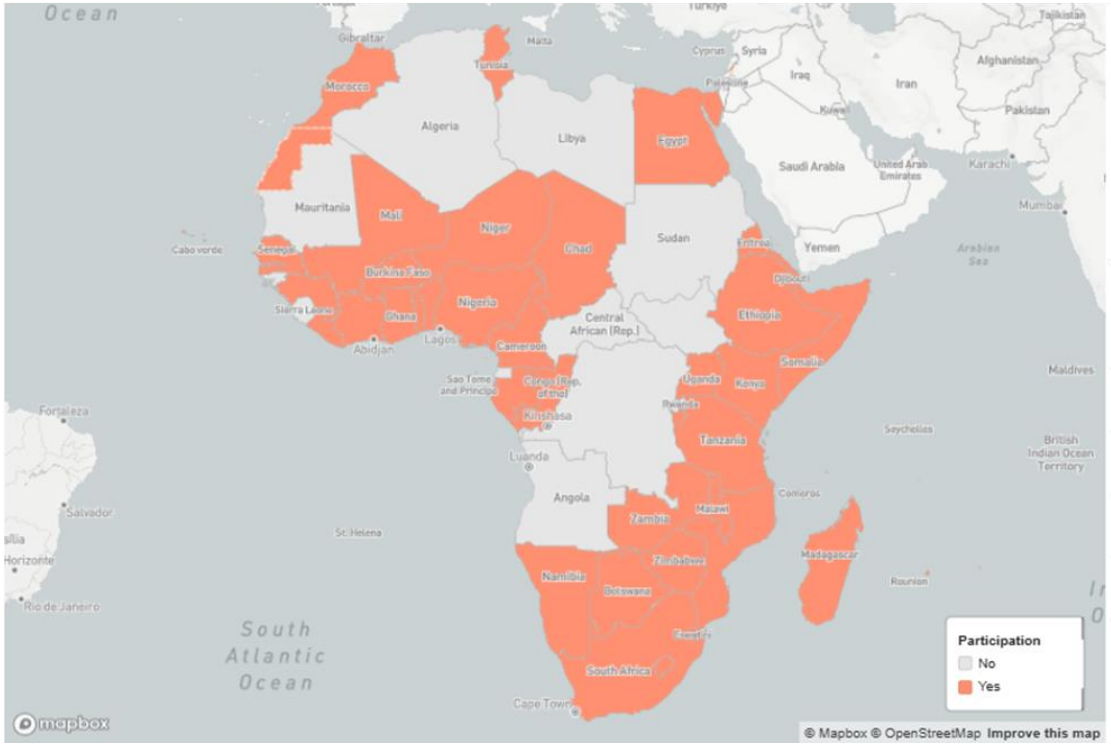
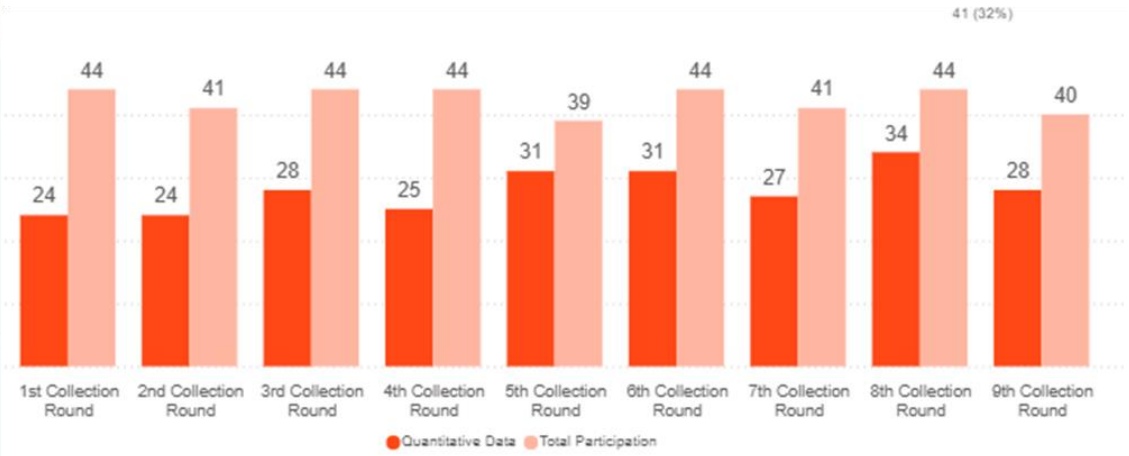
Africa's participation – 9th round

The overall participation rate in the current ninth data collection round has changed over time. **Three out of five submitted reports contain quantitative data**, representing a decrease in countries providing AMU reports, this could be explained due to alignment with countries to WOAH's target year.

Participation during the 9th round of ANIMUSE





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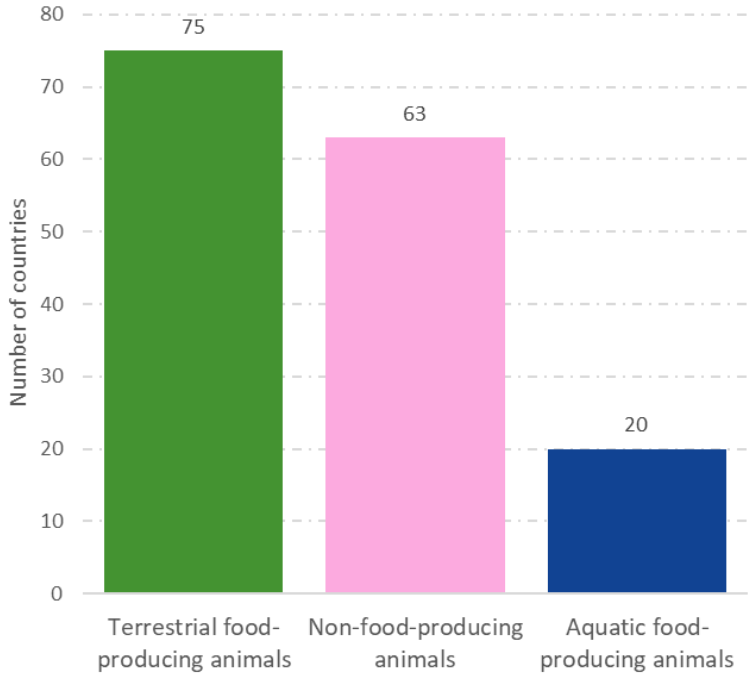
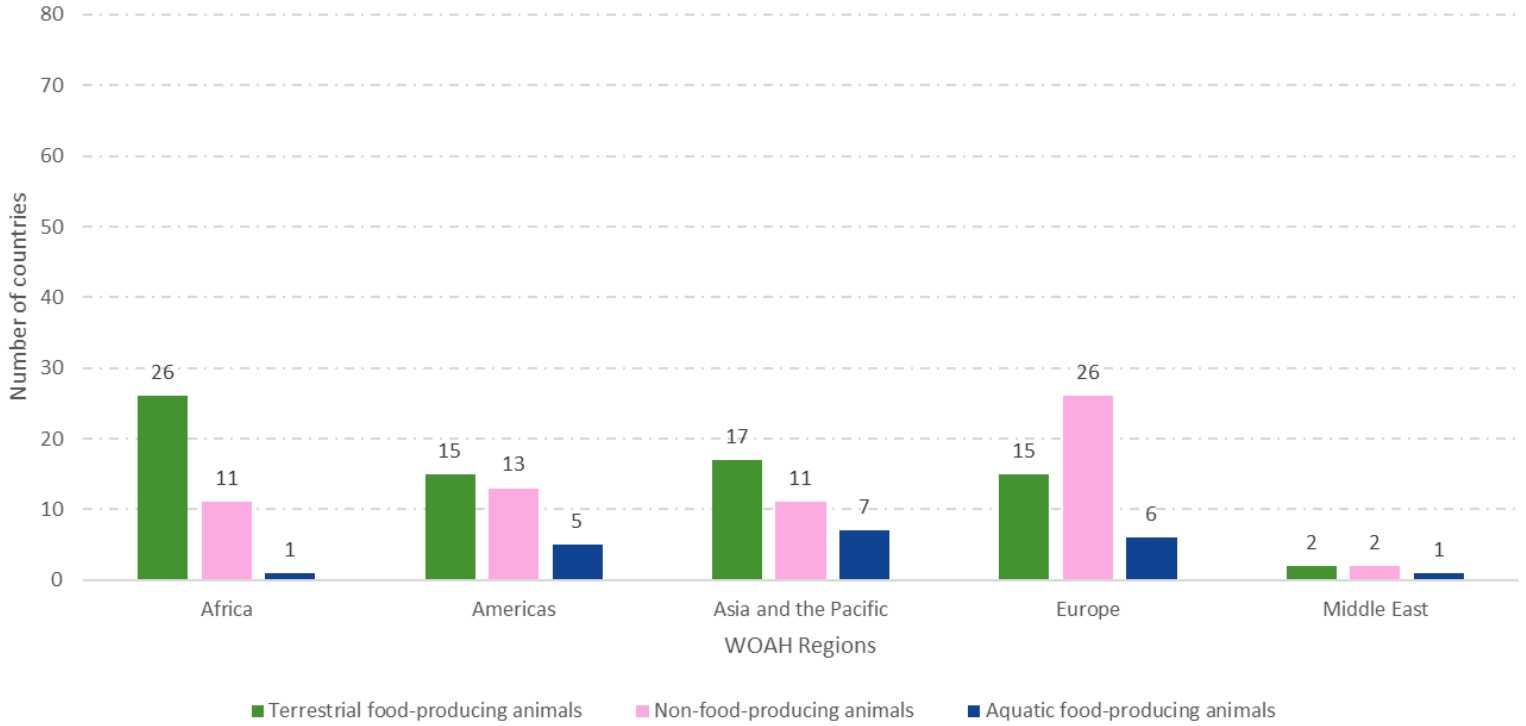
Differentiated quantities – animal groups – 2022

Global



Regions



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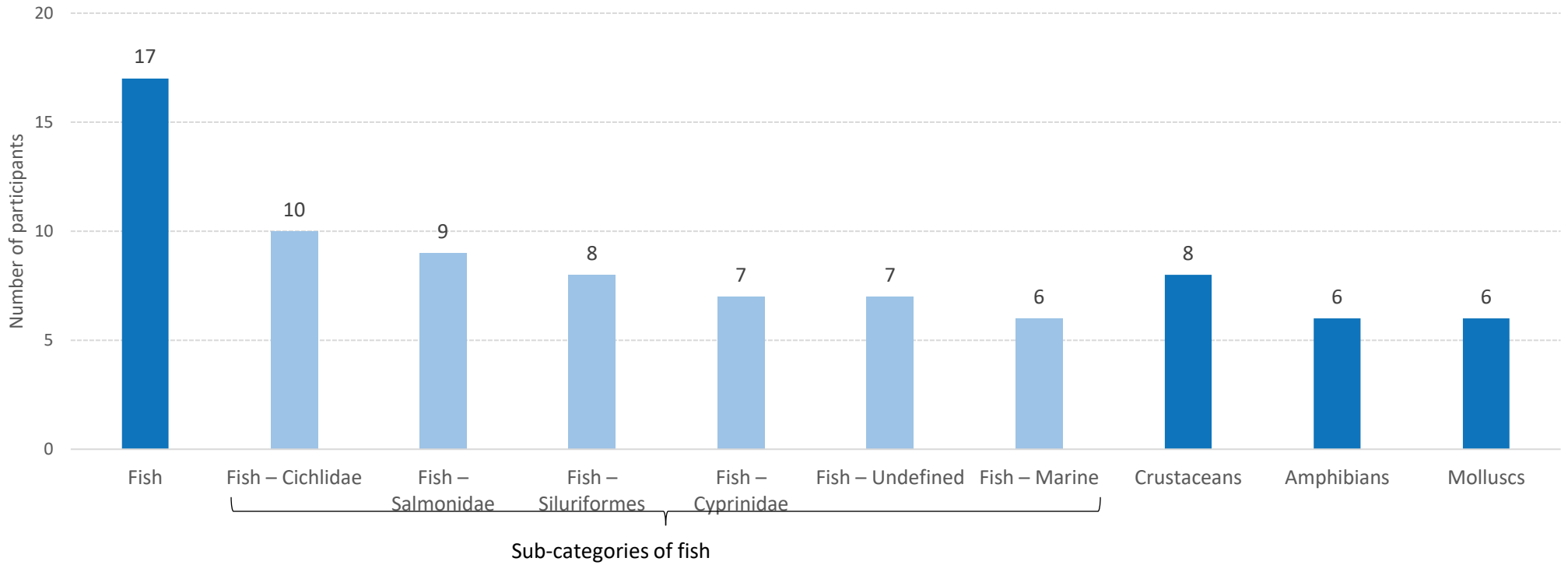
Aquatic food-producing animals – 2022

Of the 84 participants who provided quantitative data by animal group in 2022, 18 (n = 84; 21%) provided specific quantities for aquatic food-producing animals. These participants also listed animals covered by the antimicrobial quantities based on the veterinary product labels or known extra-label use.



Aquatic food-producing animals covered according to the label of the veterinary product

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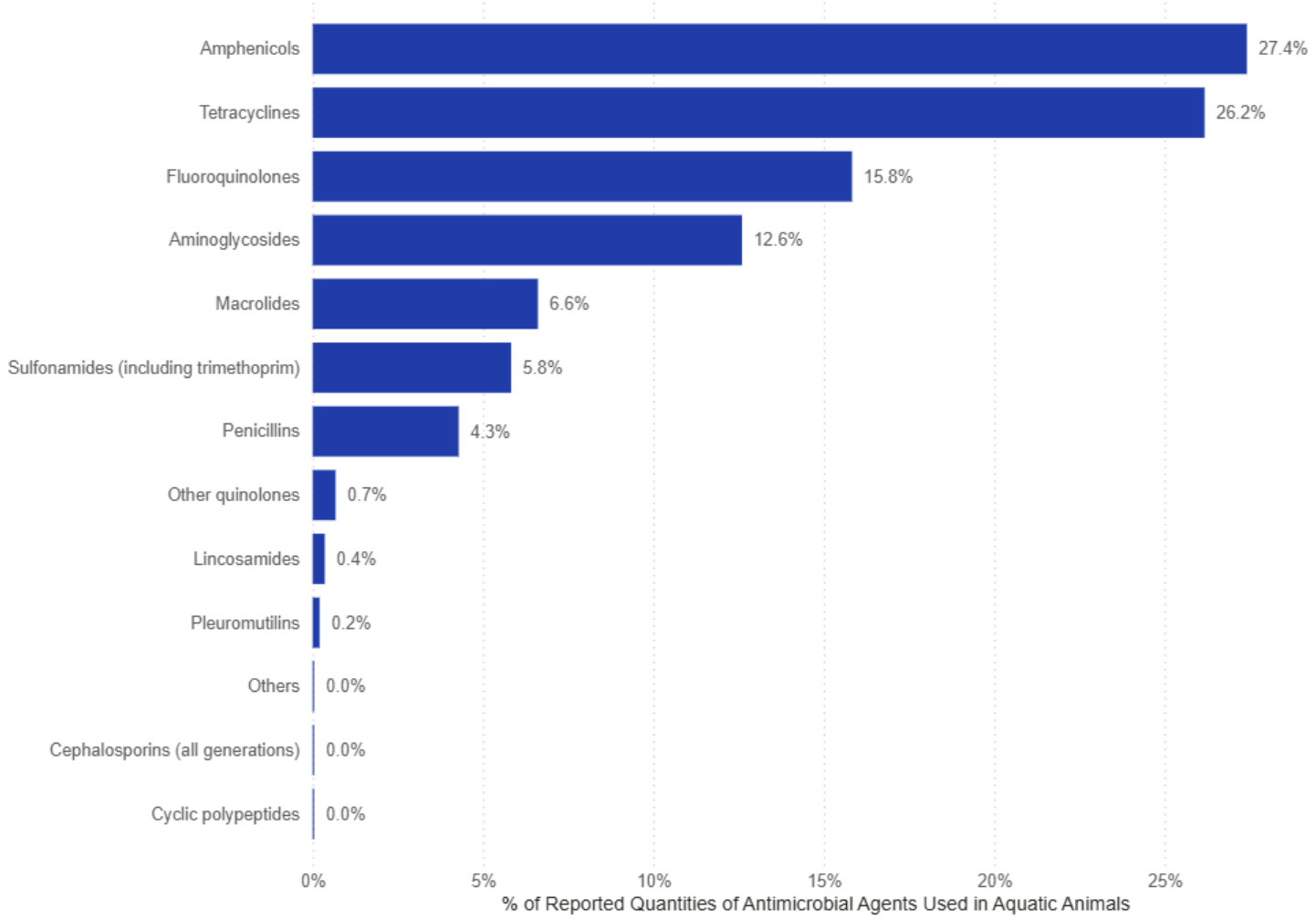
Antimicrobial classes – aquatic animals – 2022 (20 Members)



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Non food-producing animals – 2022

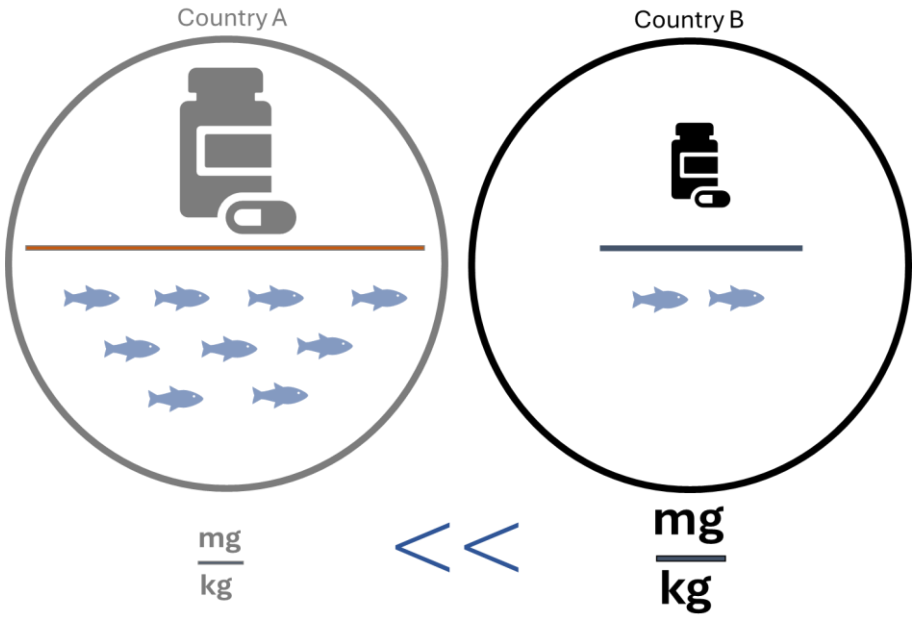
Of the 84 participants able to provide antimicrobial quantities by animal group, 61 (n = 84; 73%) provided specific quantities for non-food-producing animals. All 61 participants were asked to provide a list of animals covered by those quantities, based on the veterinary product labels or known extra-label use.

Antimicrobial quantities (numerator) and animal biomass (denominator)

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.

$$\frac{\text{Antimicrobial agents (mg)}}{\text{Animal biomass (kg)}} = \frac{\text{As reported by the country to WOAH data collection for the target year}}{\text{Total weight of food-producing animals in the target year}}$$

Calculated Animal Biomass of a country for the target year



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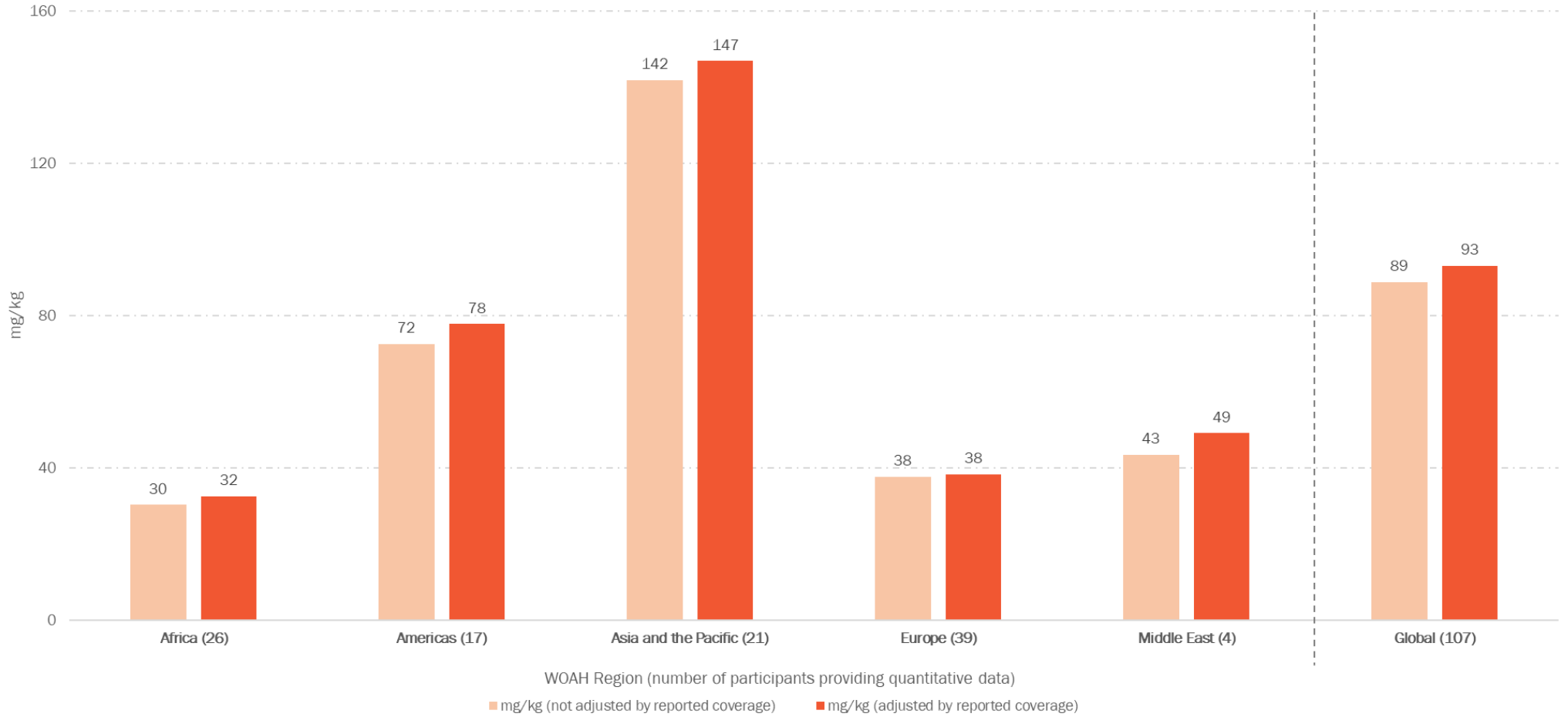
AMU adjusted by animal biomass – Global & regional – 2022



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AMU terrestrial vs aquatic animals – 2022

Table 5. Antimicrobial quantities, adjusted by animal biomass, for terrestrial animals and aquatic animals in 2022

Animal group	Number of participants	mg/kg*	Median (mg/kg)*	Standard deviation (mg/kg)*	Minimum (mg/kg)*	Maximum (mg/kg)*
Terrestrial food-producing animals	71	95.37 (98.16)	11.87 (15.48)	73.68 (77.26)	0.001 (0.001)	470.53 (470.53)
Aquatic food-producing animals	17	20.64 (20.92)	12.71 (14.95)	232.99 (259.03)	0.08 (0.09)	895.40 (942.52)

*Adjusted estimated data coverage in brackets.

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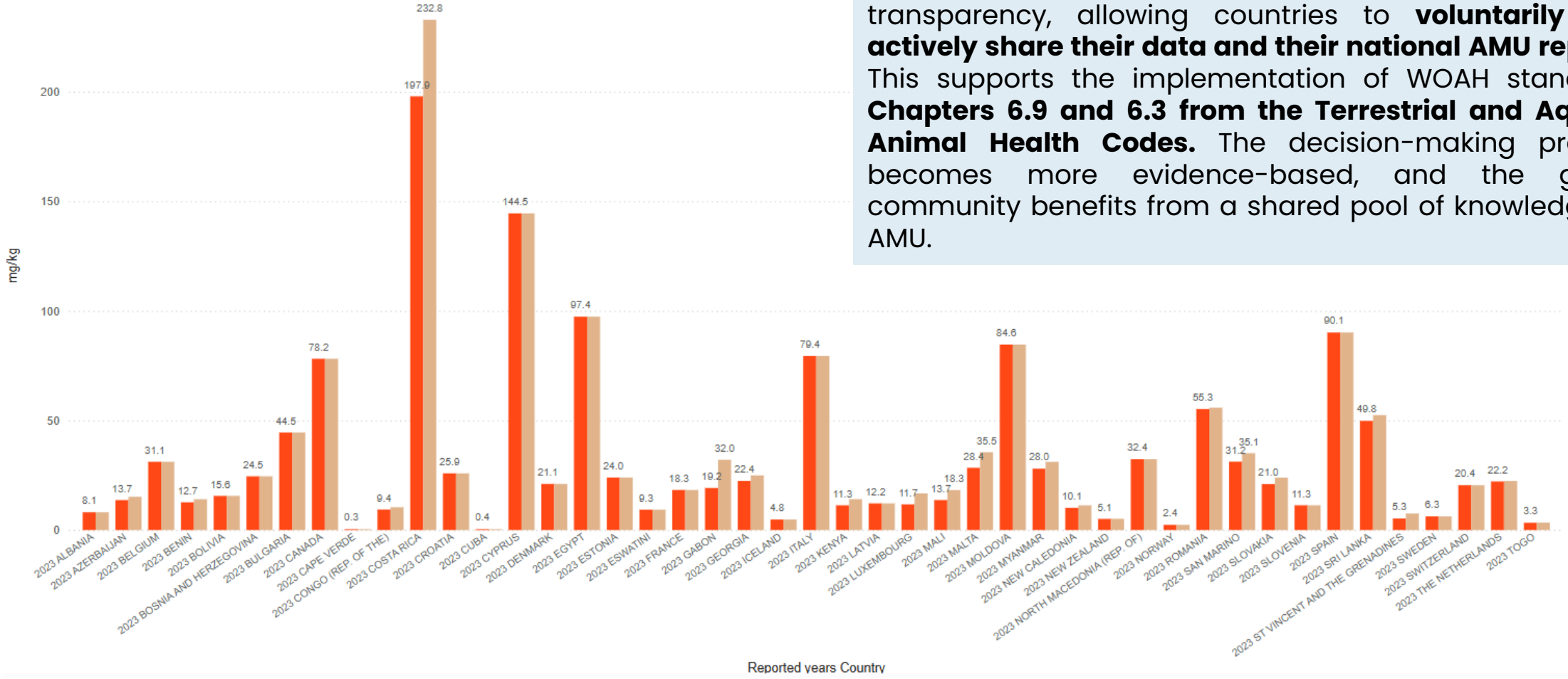
National AMU reports in ANIMUSE



ANIMUSE's public portal serves as a beacon of transparency, allowing countries to **voluntarily and actively share their data and their national AMU reports**. This supports the implementation of WOAH standards **Chapters 6.9 and 6.3 from the Terrestrial and Aquatic Animal Health Codes.** The decision-making process becomes more evidence-based, and the global community benefits from a shared pool of knowledge on AMU.

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Thank you !

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