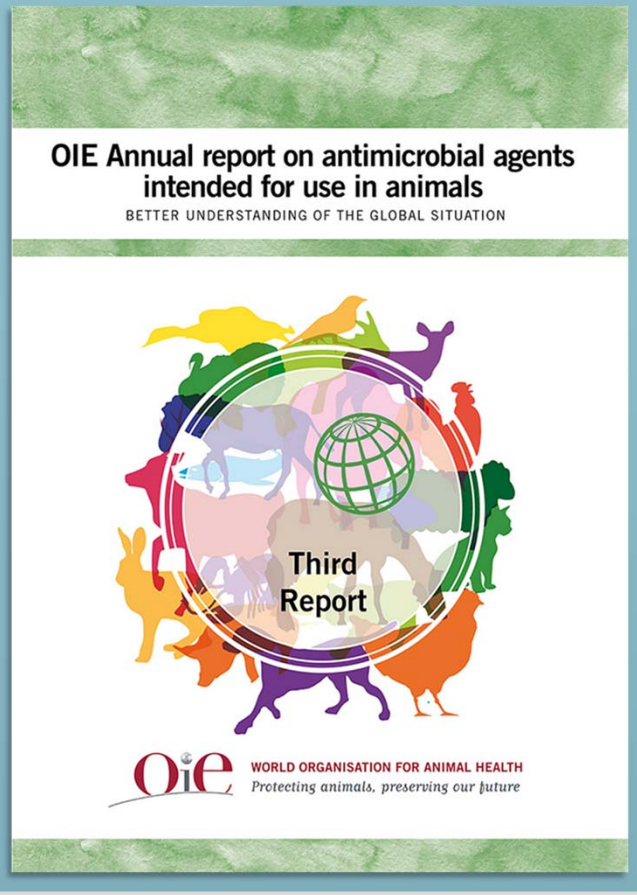
OIE Database on Antimicrobial Agents Intended for Use in Animals:

Third Phase Results
global and Africa

Acknowledgements



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Protecting animals, preserving our future

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- The database
- Comparison of rounds
- 3rd round (2017)
- Quantities/biomass mg/kg
- Way ahead & Sum up

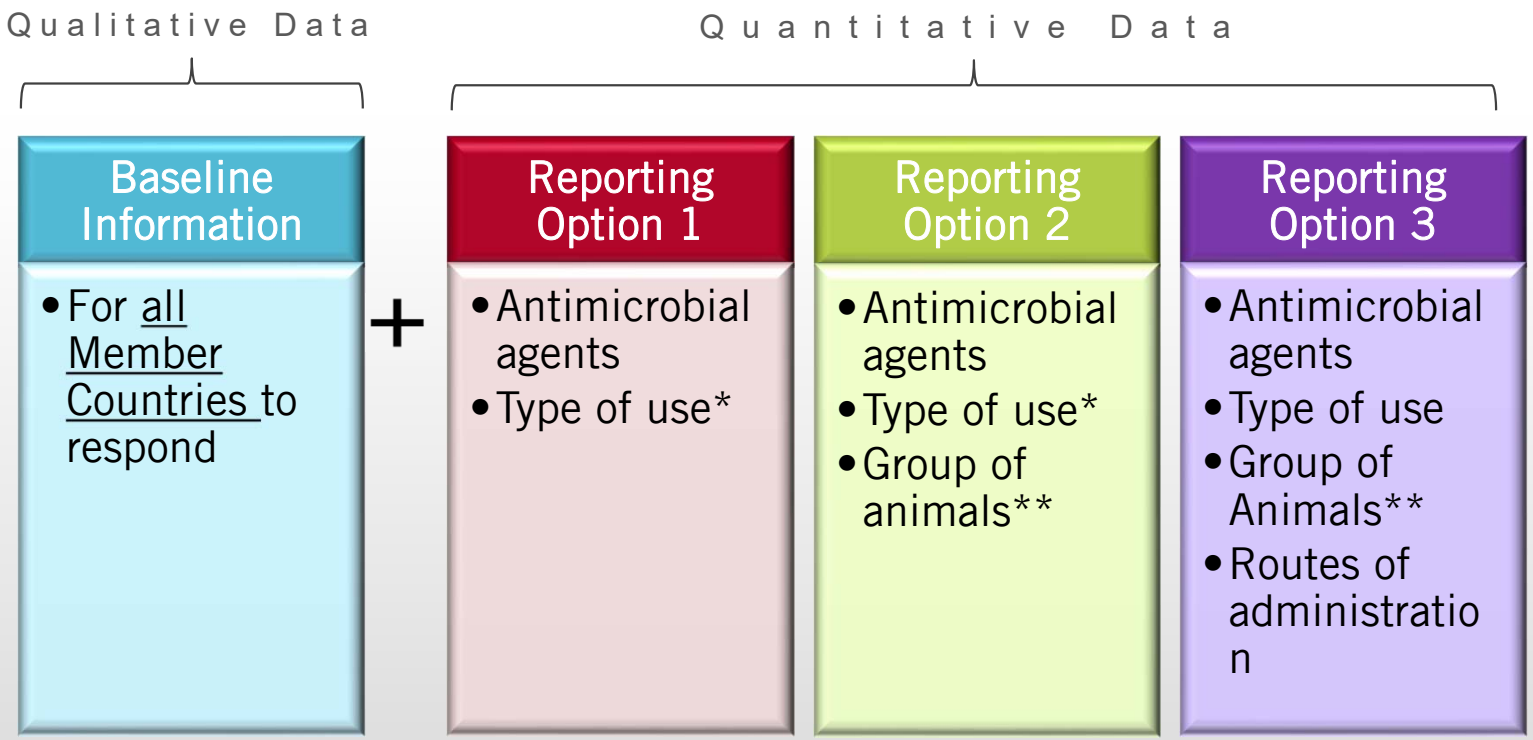
The database

Monitoring the use of antimicrobials in animals

1. A system where all can contribute
2. That safeguards information
3. That is pragmatic regarding the data collected
4. That will help to collect comparable data

Reporting Options

The sections of the OIE Template named ‘Reporting Options’ 1, 2 and 3, collect the quantities of antimicrobial agents intended for use in animals.

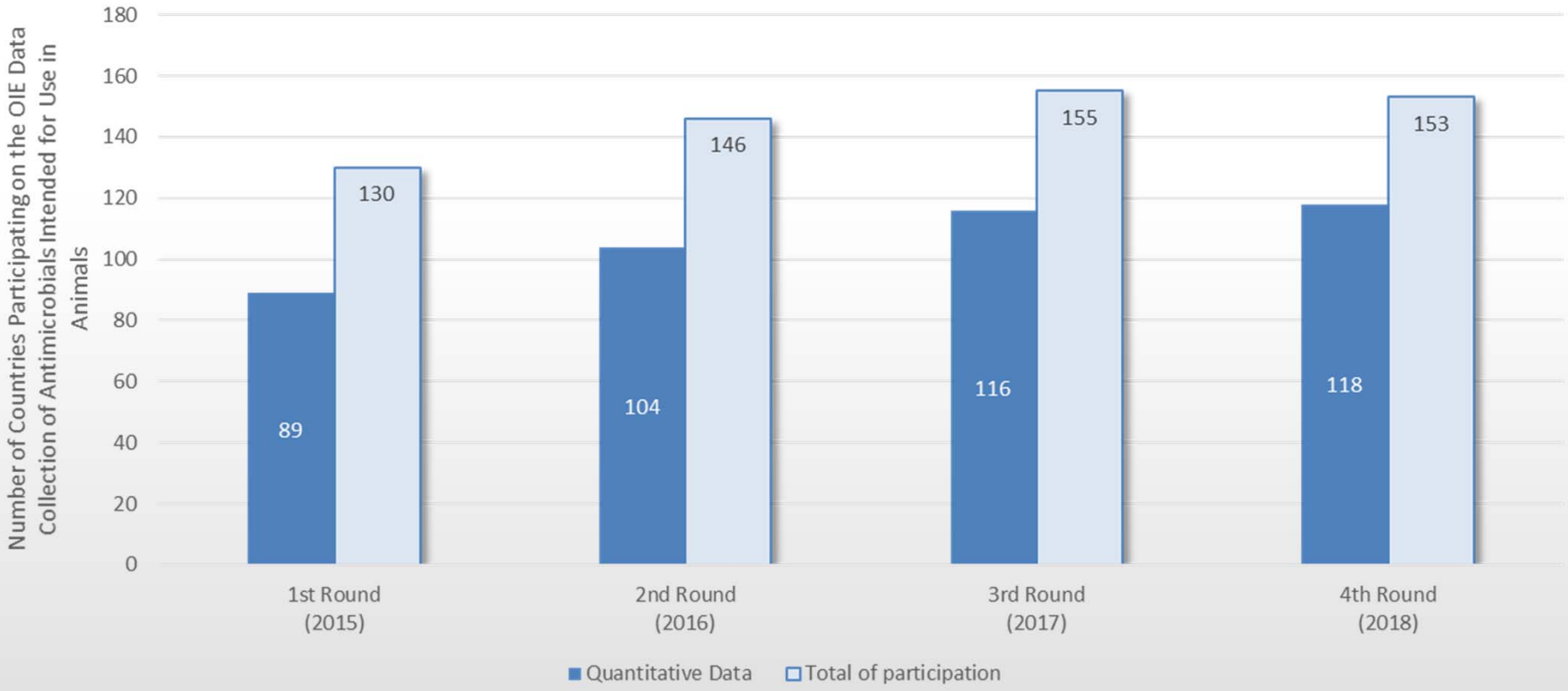


* Type of use: veterinary medical use or growth promotion

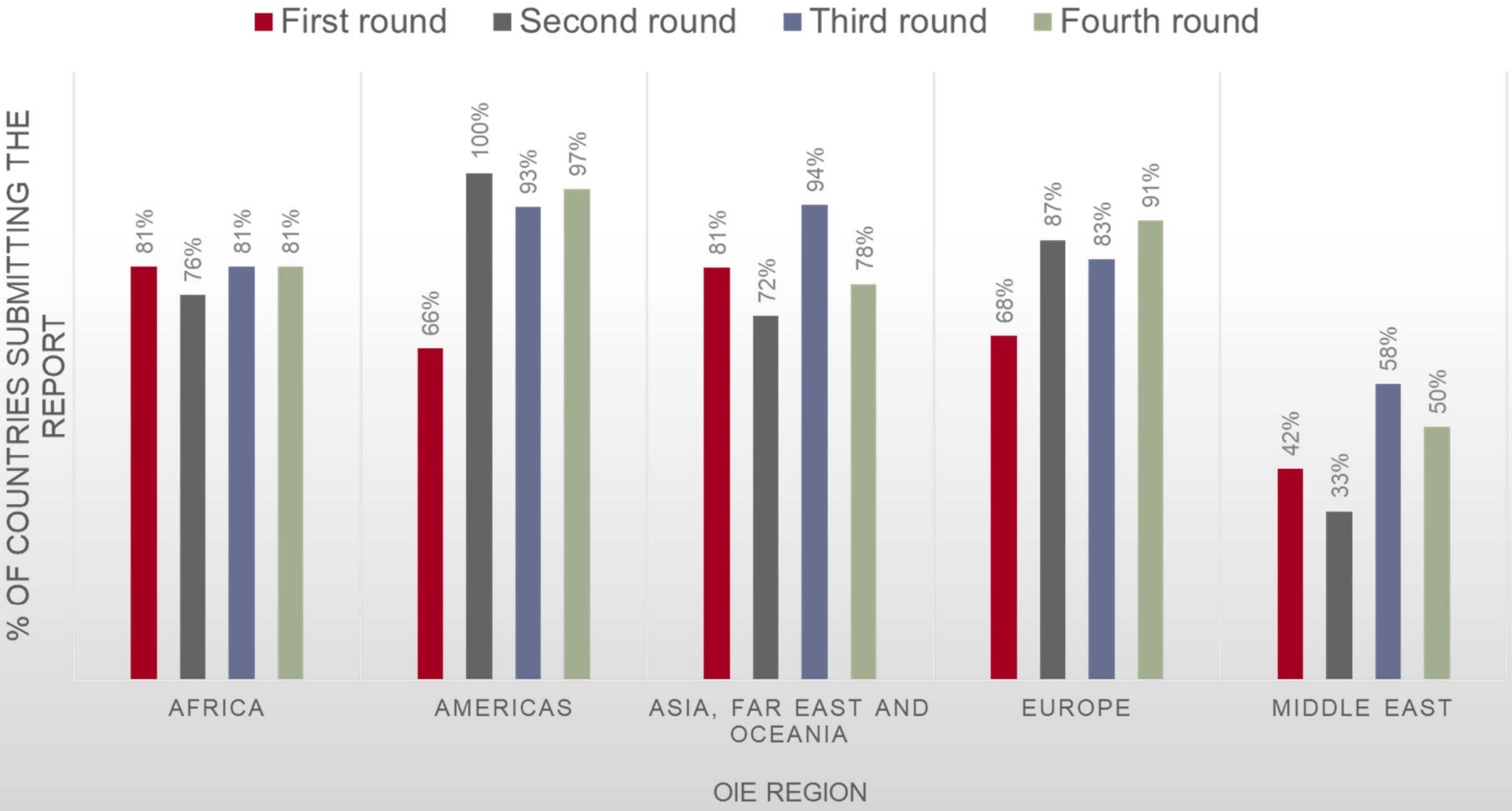
**For the purposes of the OIE database, animal groups means: ‘terrestrial food-producing animals’, ‘aquatic food-producing animals’ or ‘Companion animals’

Comparison of rounds

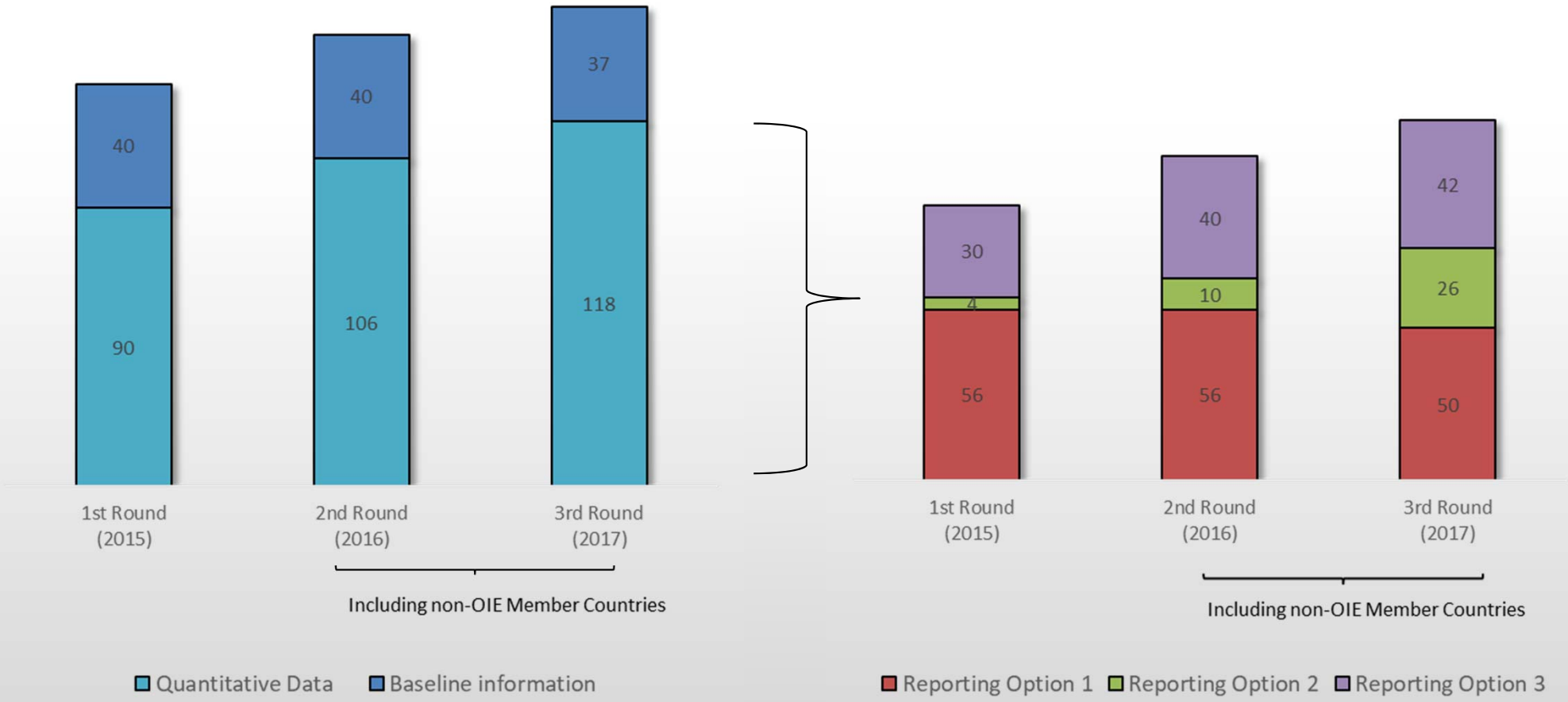
Countries that Responded to the OIE Questionnaire, by Round of Data Collection



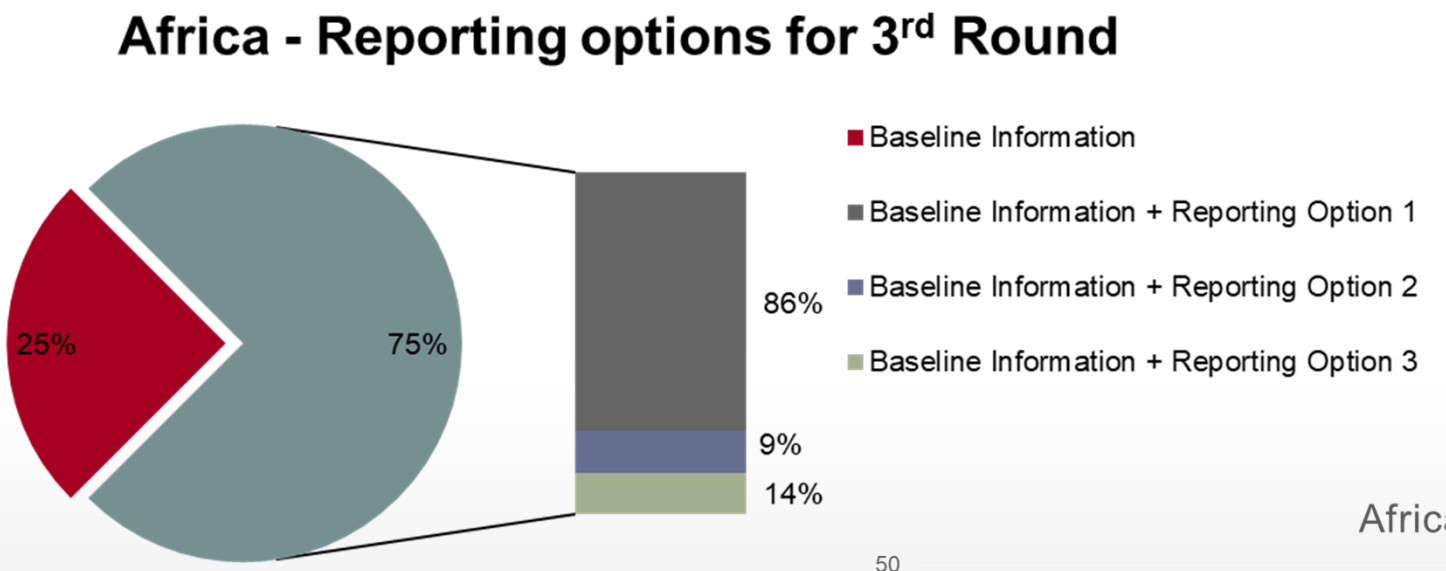
Proportion of Member Countries reporting to OIE

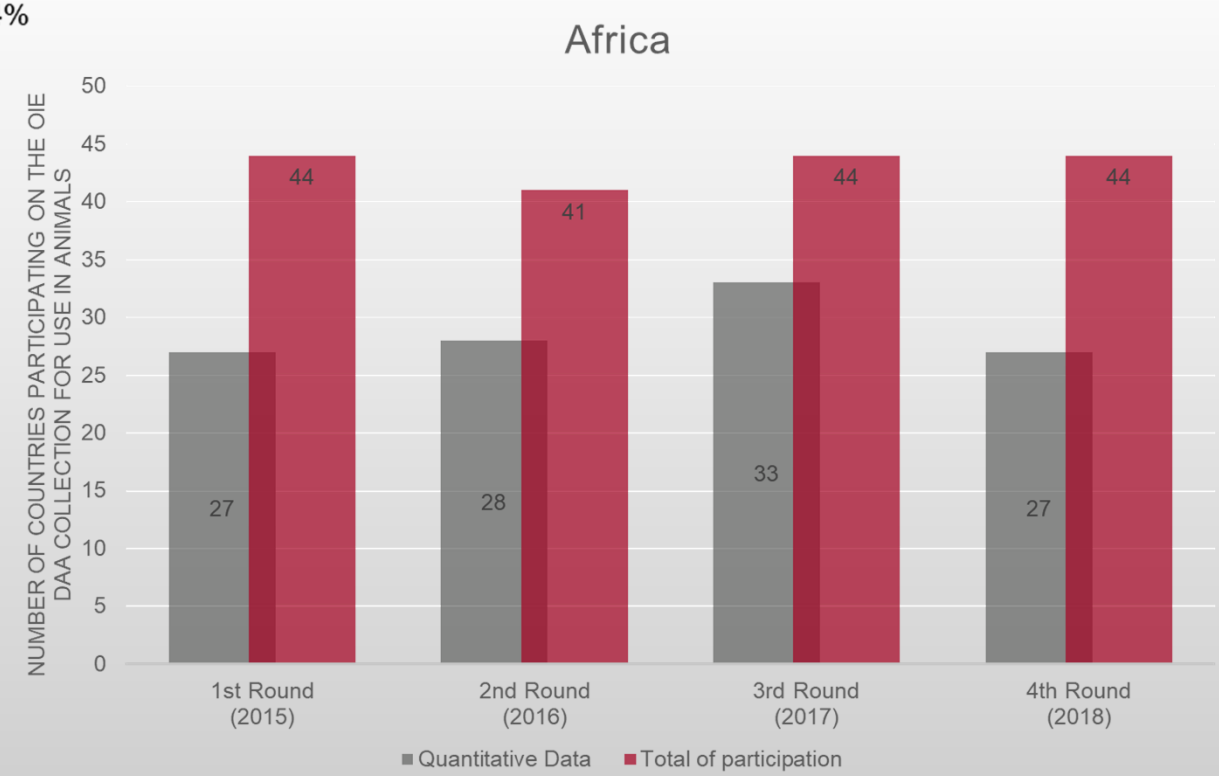


Comparison of Data Types Reported in the OIE Data Collection



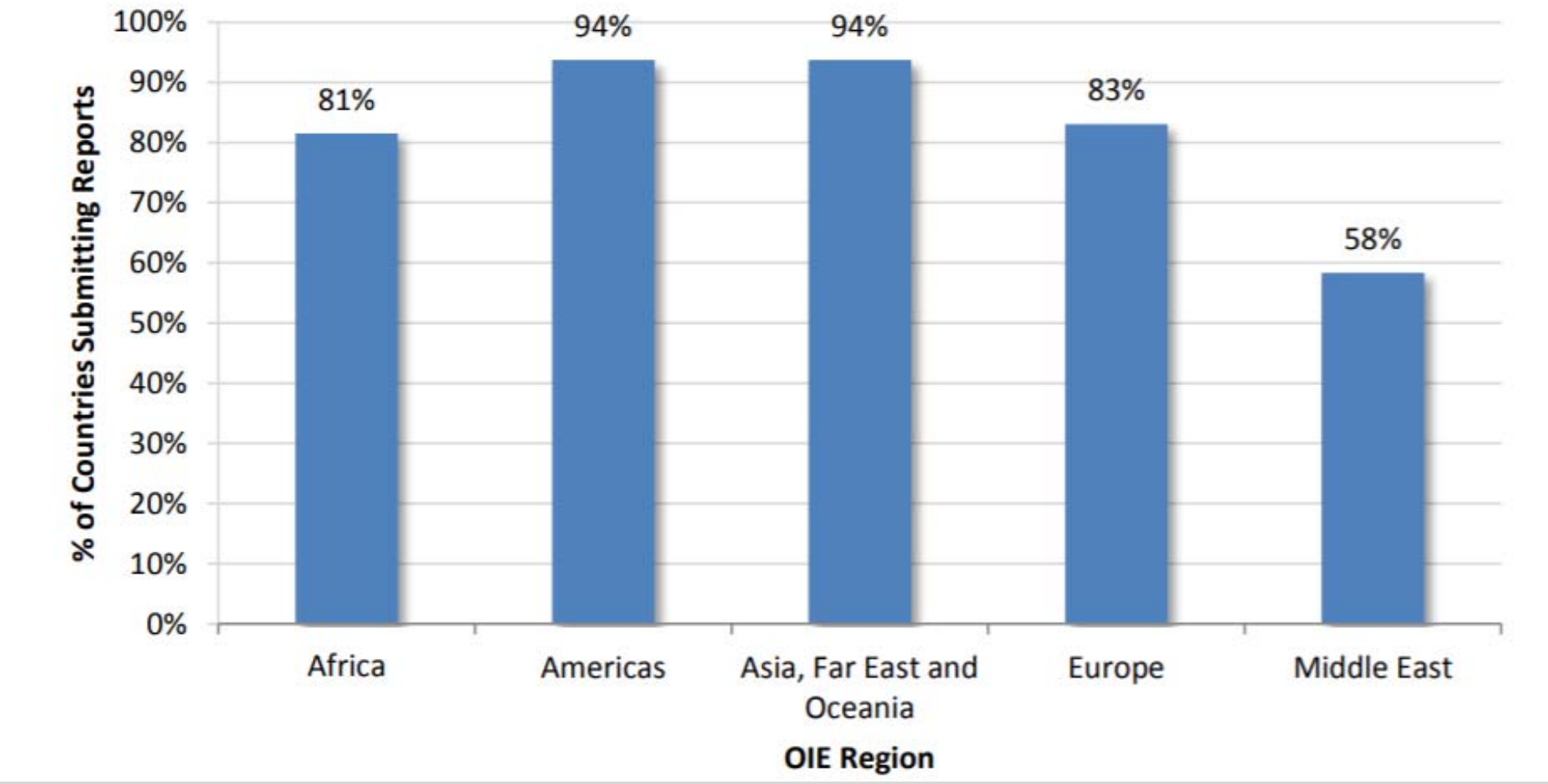
Proportion of Countries Submitting Quantitative Data on AMU in Africa



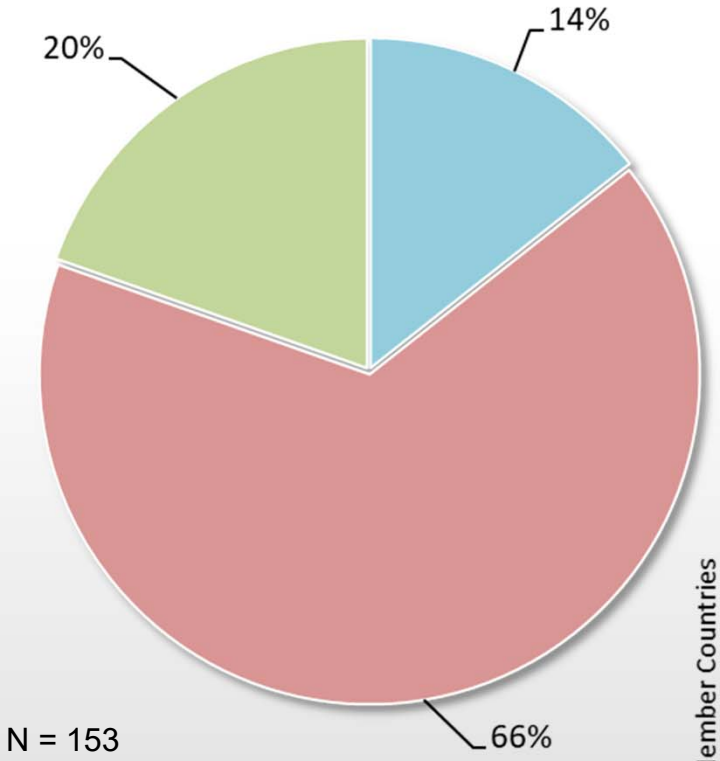


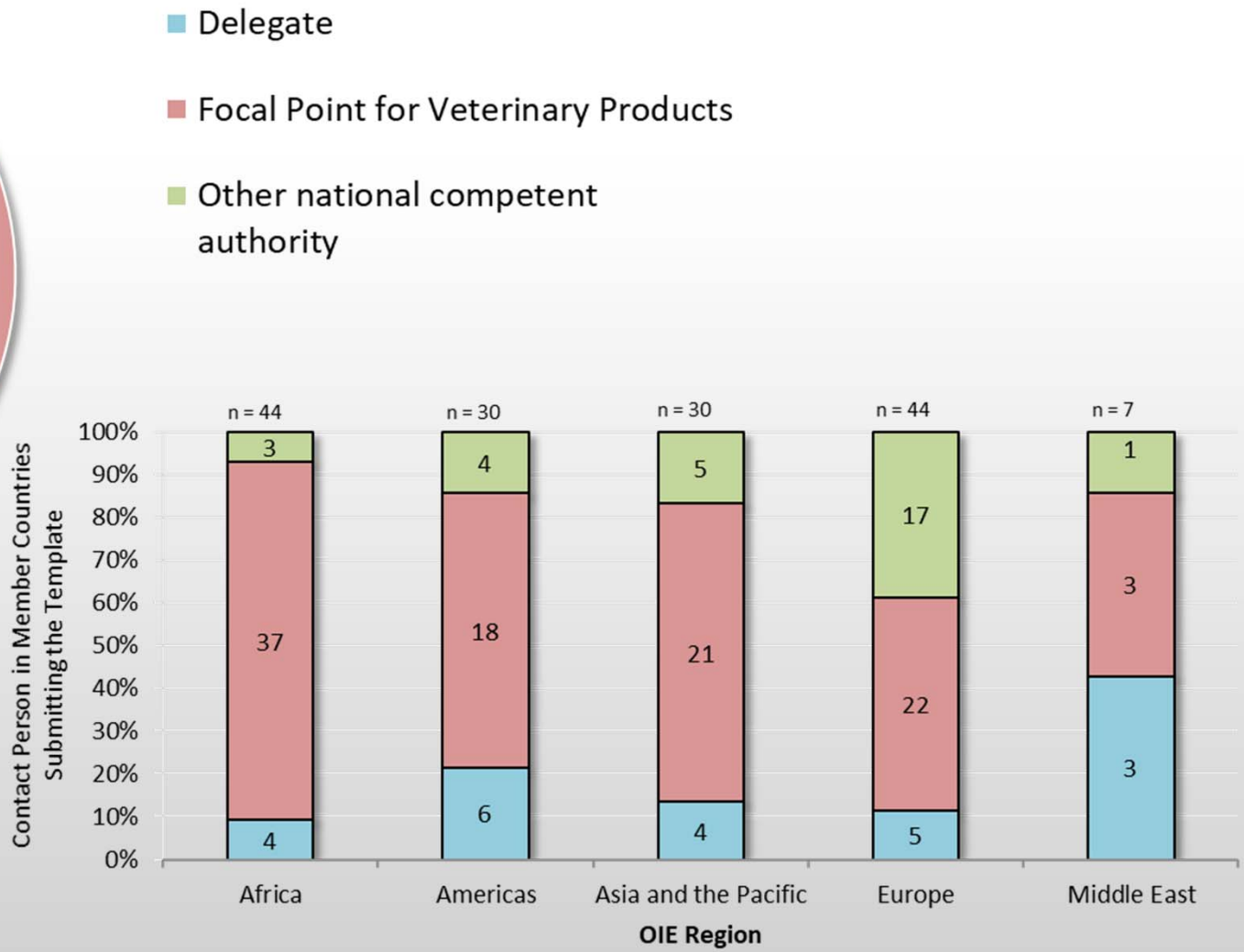
3rd round (2017)

Percent of countries reporting

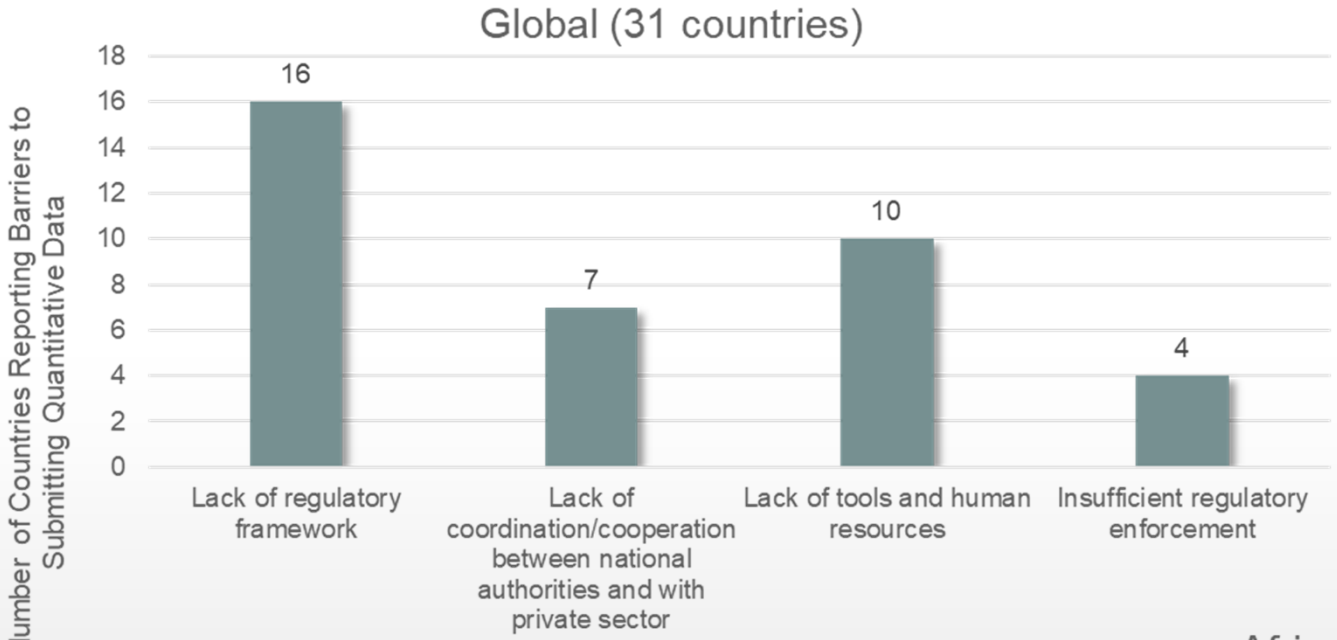


Contact Person Profile of 153 Member Countries that Submitted the OIE Template in the Third Round (2017)

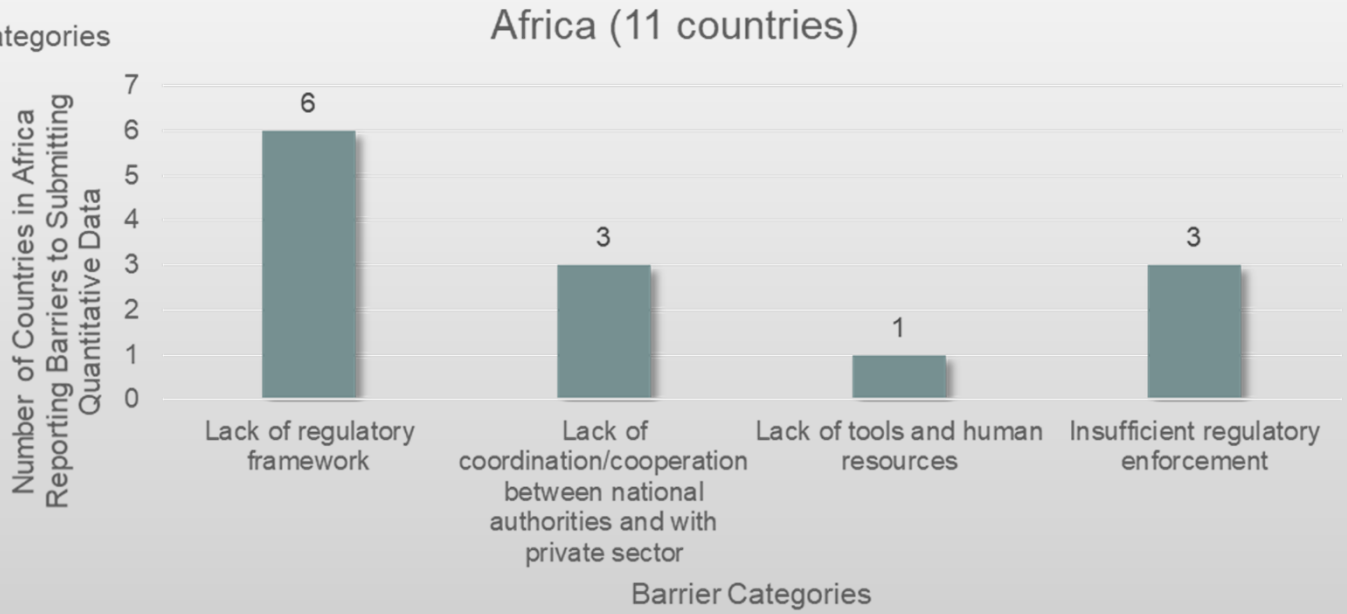




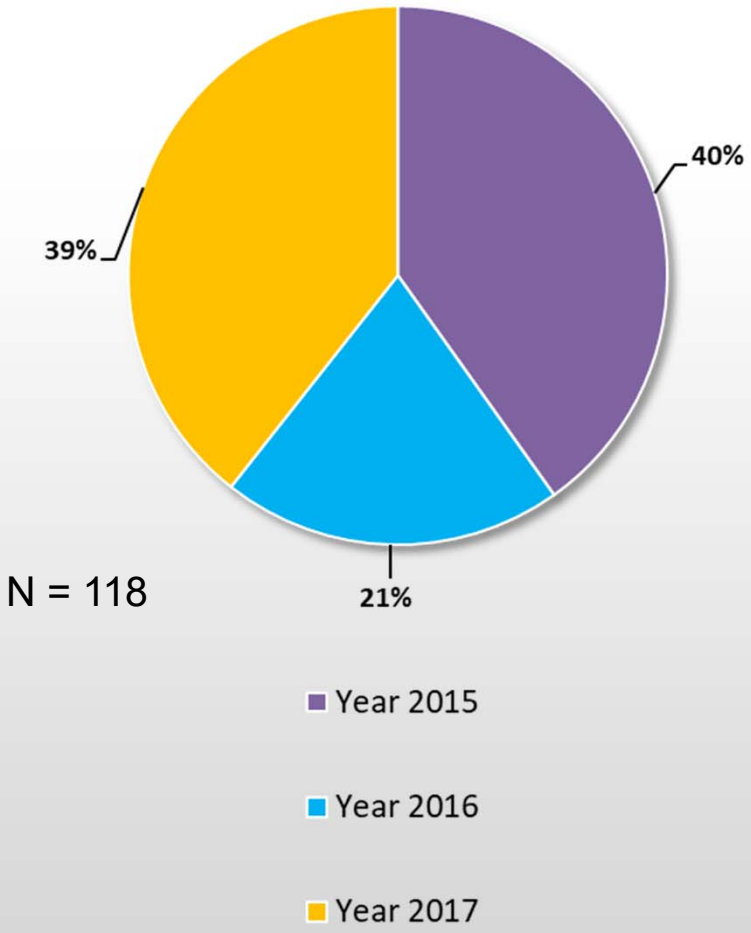
Barriers to Providing Data on Quantities of Antimicrobial Agents in Animals, Third Round (2017)



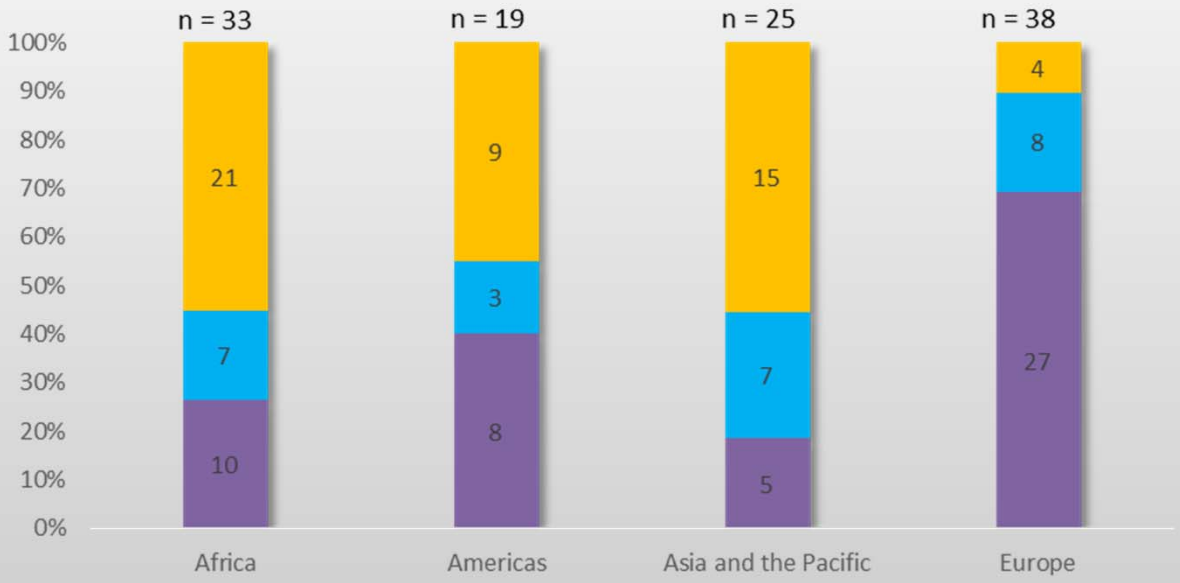
From the 38 countries that reported barriers during the 2nd Round, 11 countries (29%) passed to report quantitative data for the first time in the 3rd Round.



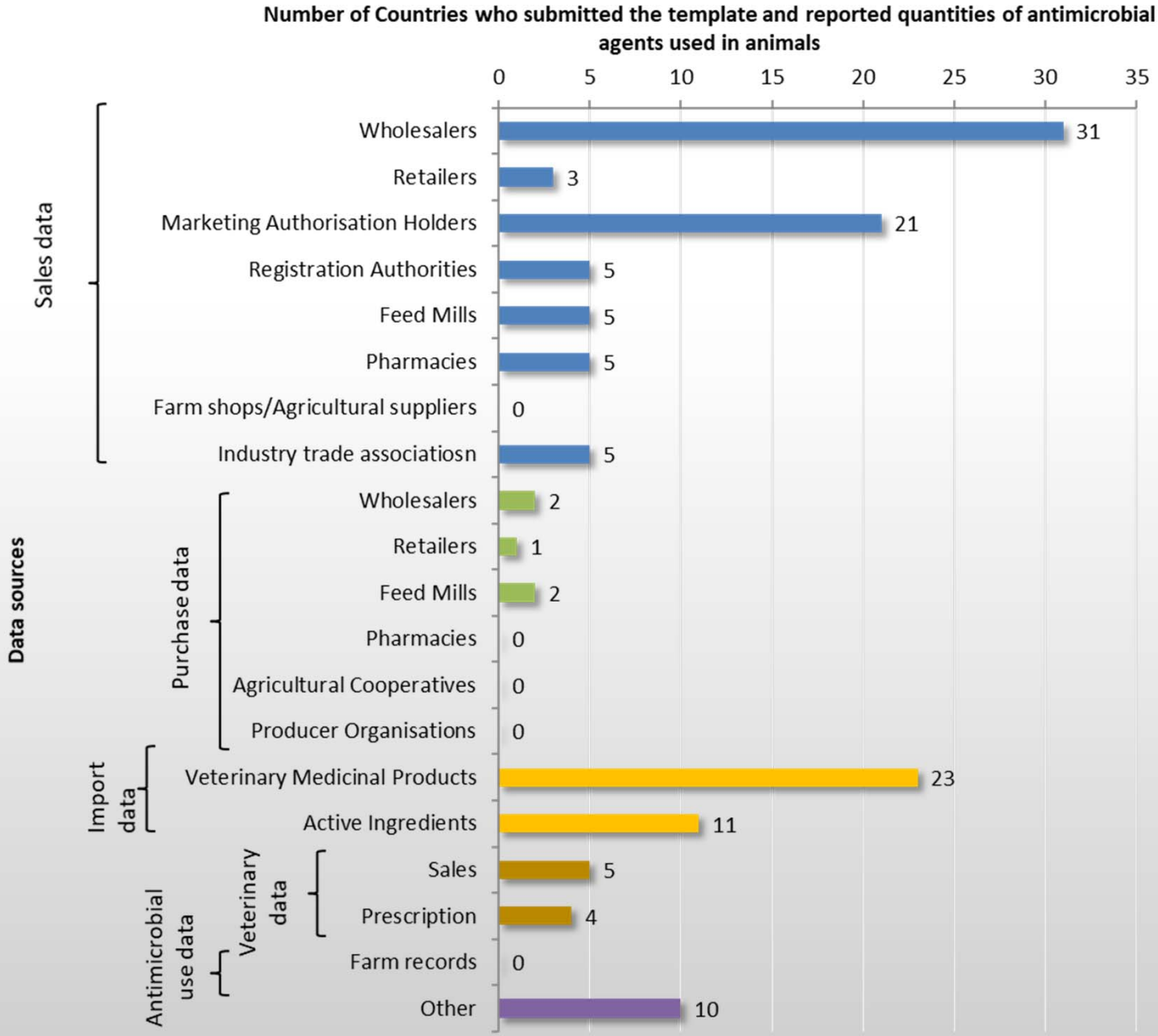
Years of Reported Data in the Third Round (2017)



- **1st Round:** Countries provided data for years between **2010-2015** (**2013** target year)
- **2nd Round:** Countries provided data for years between **2013-2016** (**2014** target year)
- **3rd Round:** Countries provided data for years between **2015-2017** (**2015** target year)

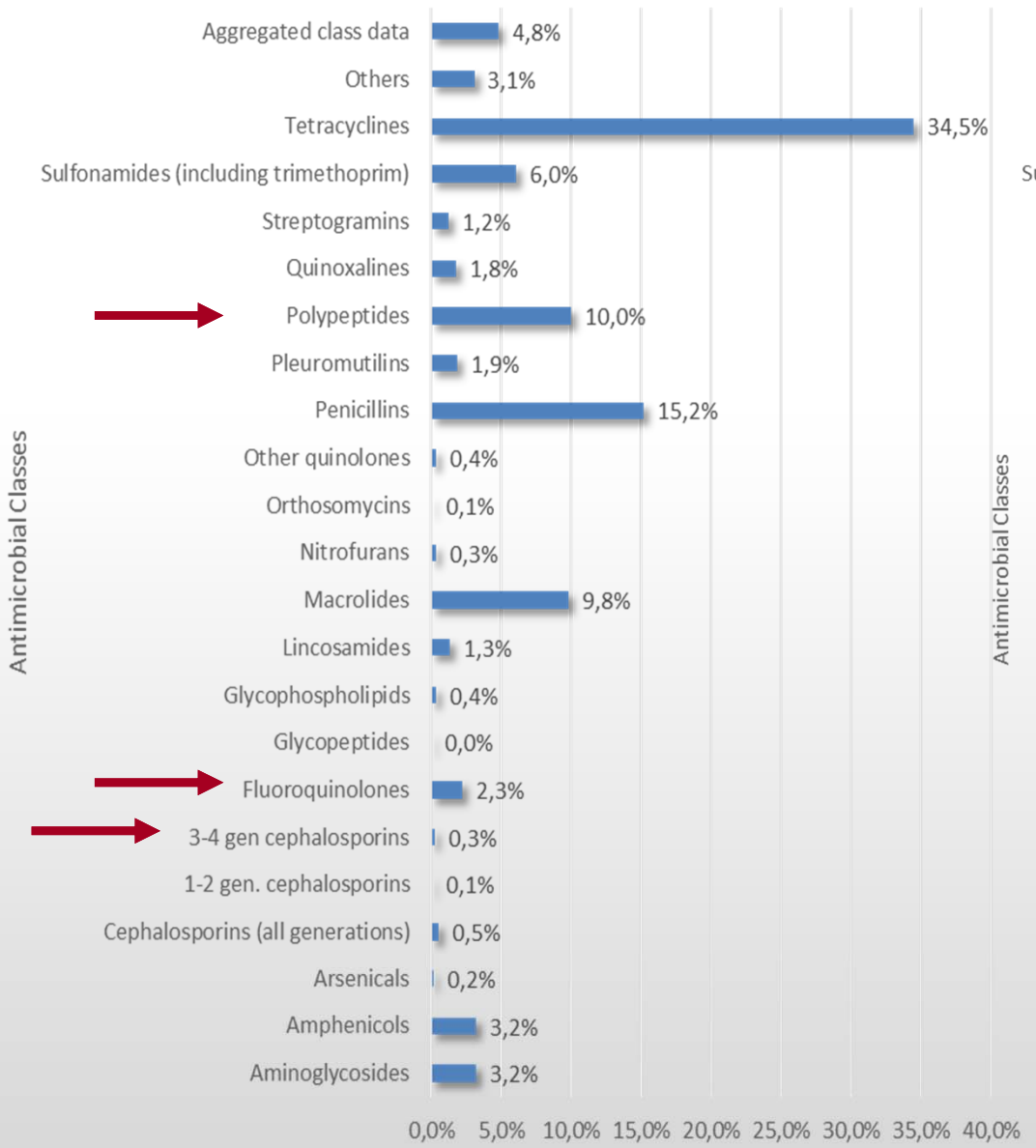


Validated Data Sources Selected by 94 Countries Reporting Quantitative Data from 2015 to 2017, Third Round

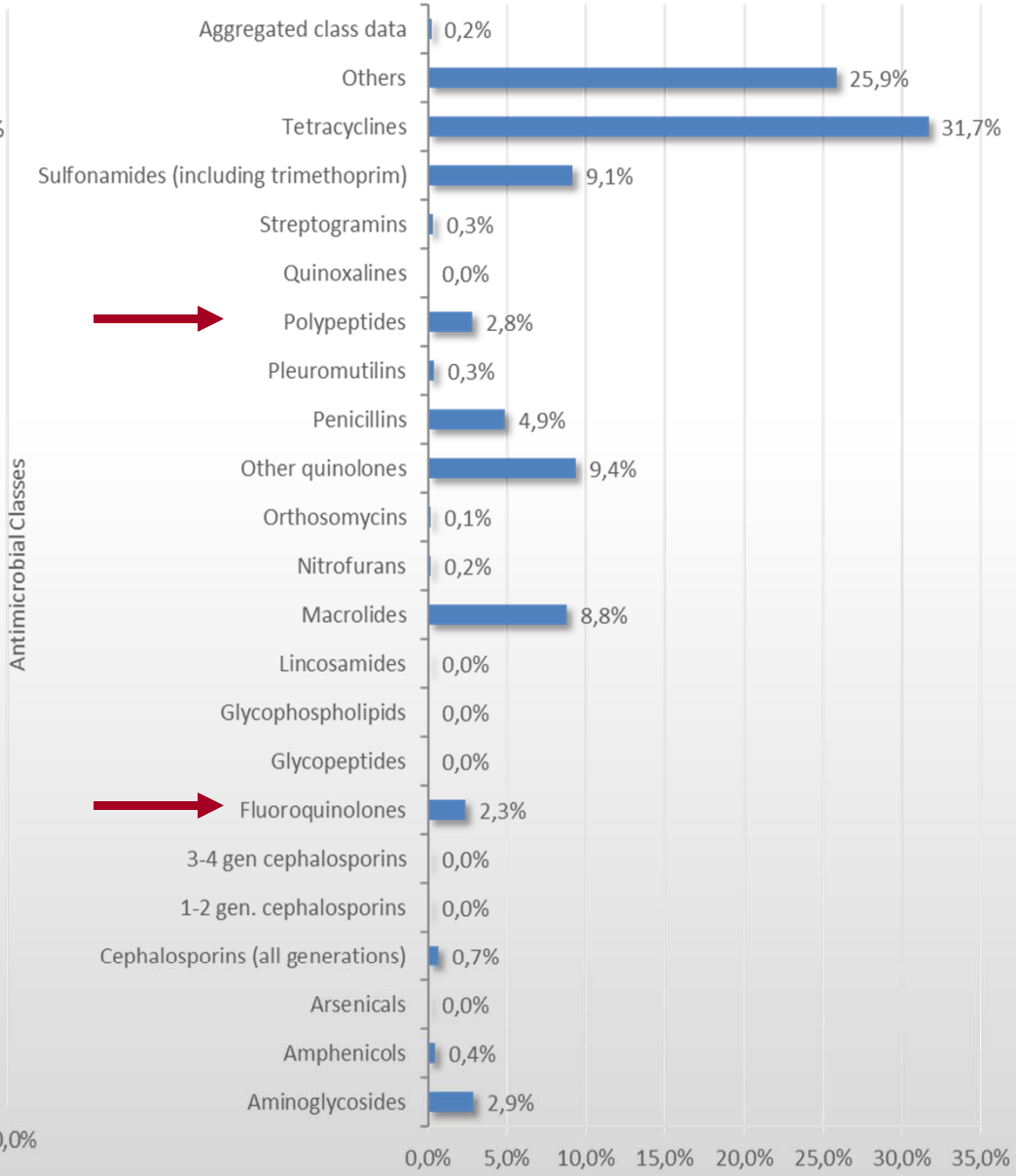


Exchanges with Countries:
-582 emails
-20 phone calls

Proportion of Antimicrobial Quantities (by Antimicrobial Class) Reported for Use in Animals During the Third Round from 2015 to 2017

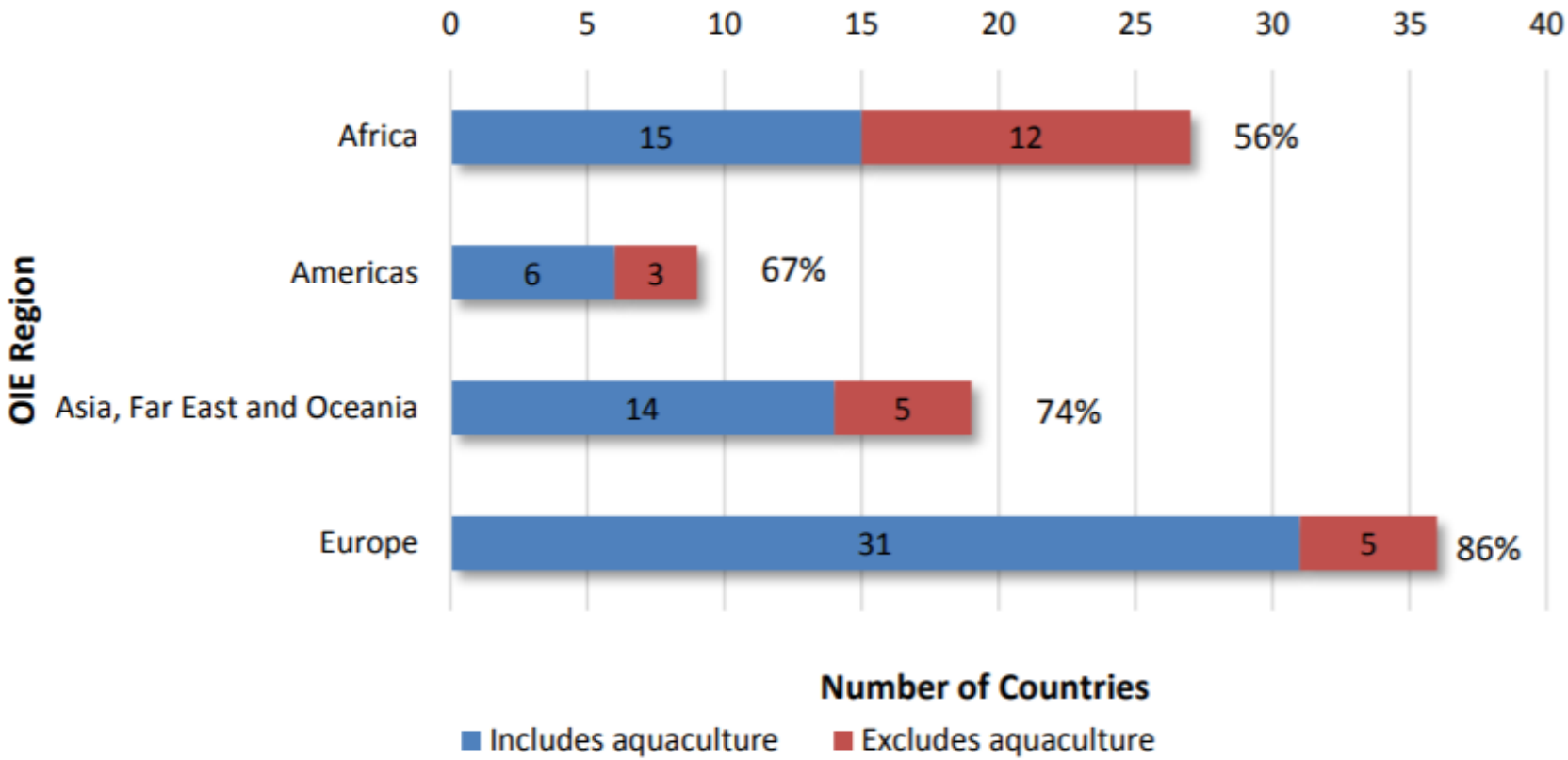


Global - Proportion of Antimicrobial Quantities Reported for Use in Animals by **116 Countries**

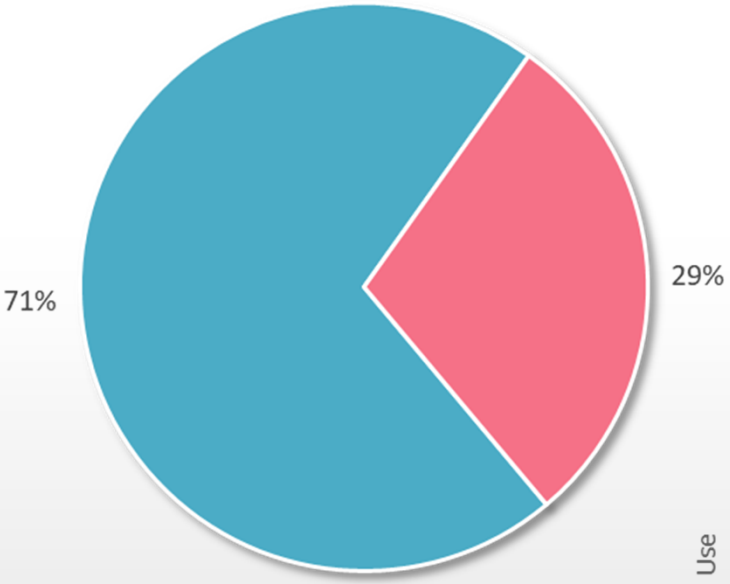


Africa - Proportion of Antimicrobial Quantities Reported for Use in Animals by **32 Member Countries in Africa**

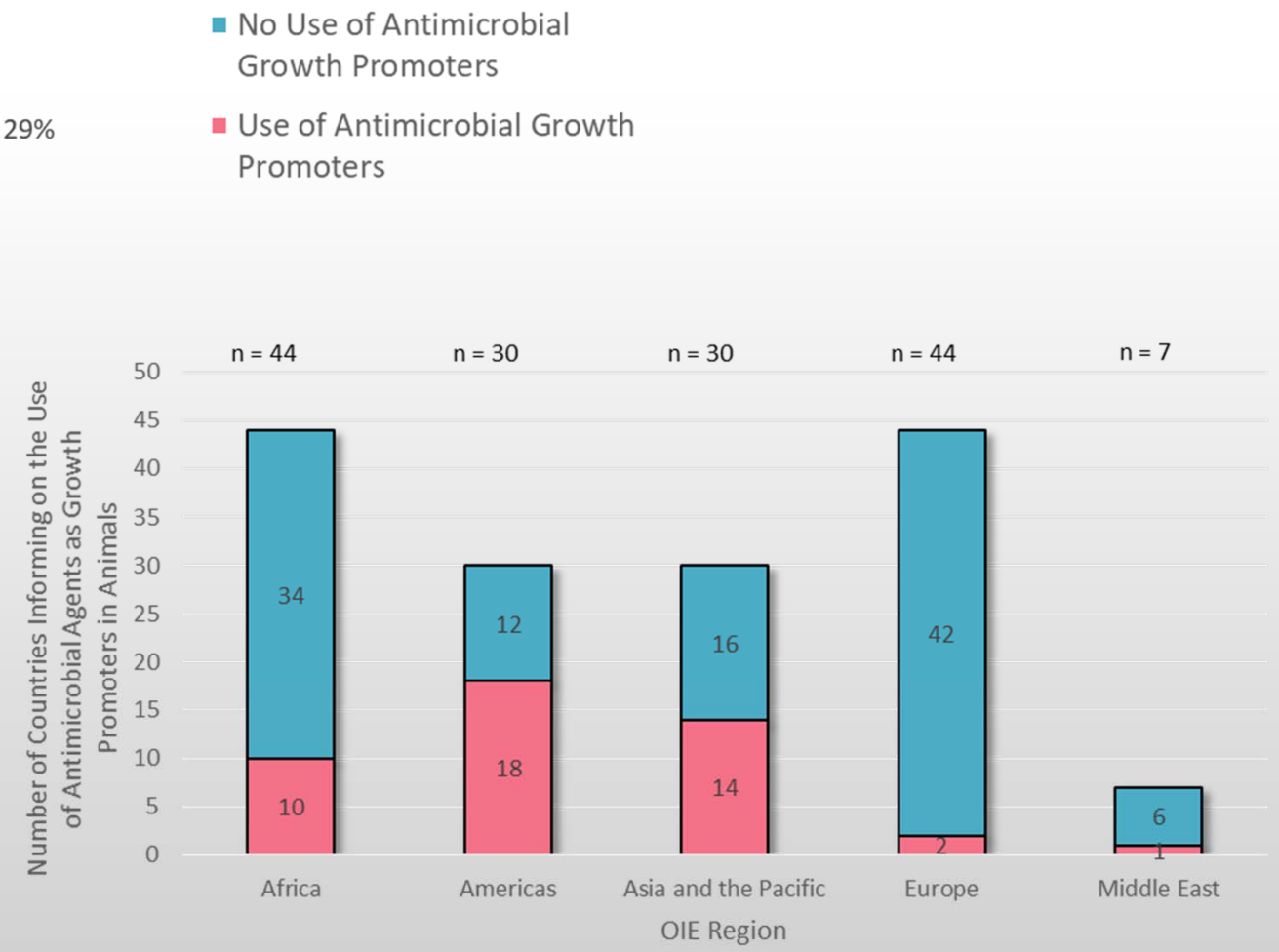
Countries Including Aquatic Food-Producing Animal Species in Quantitative Data for 2015



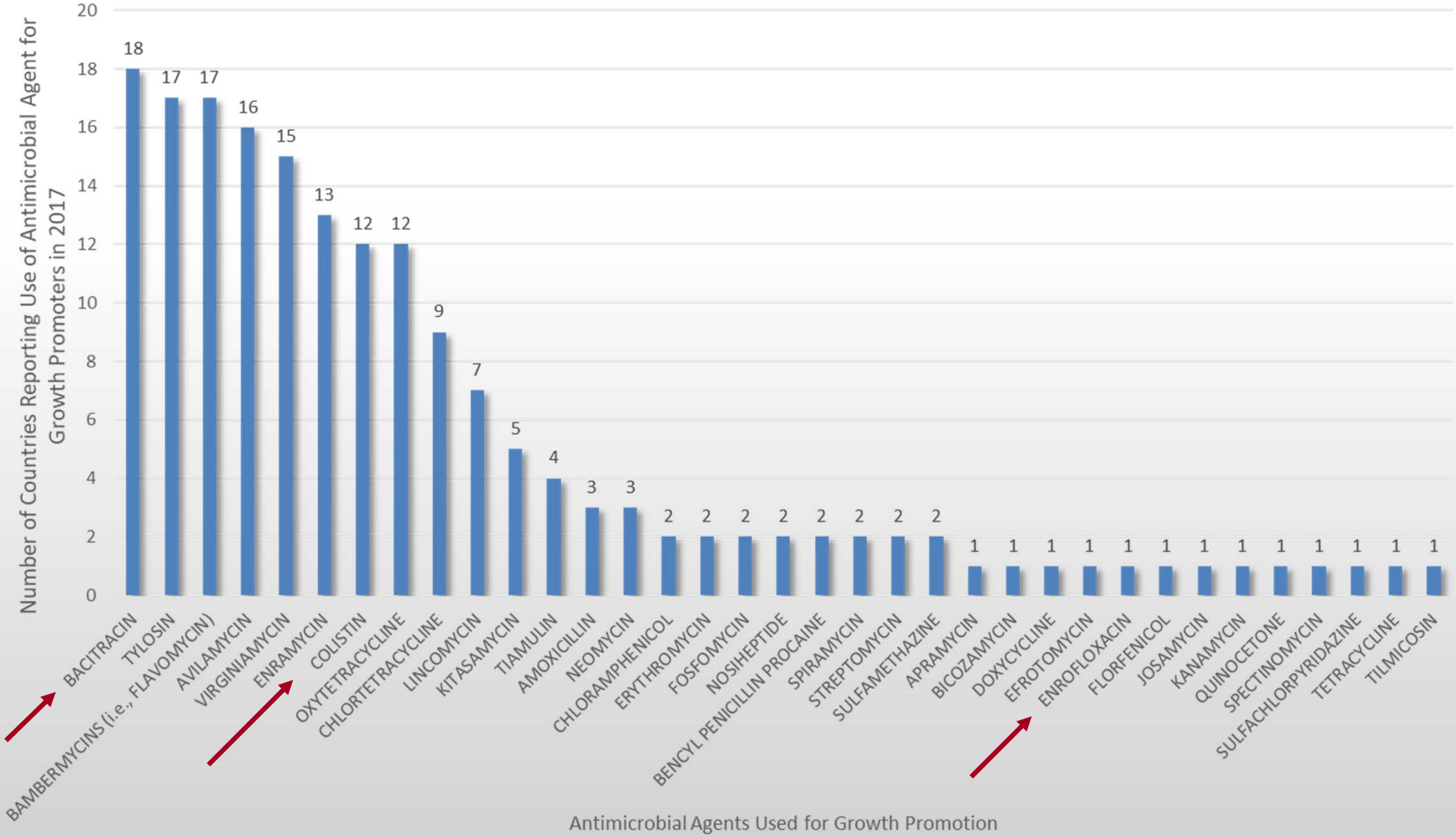
Use of Antimicrobial Agents as Growth Promoters, Third Round (2017)



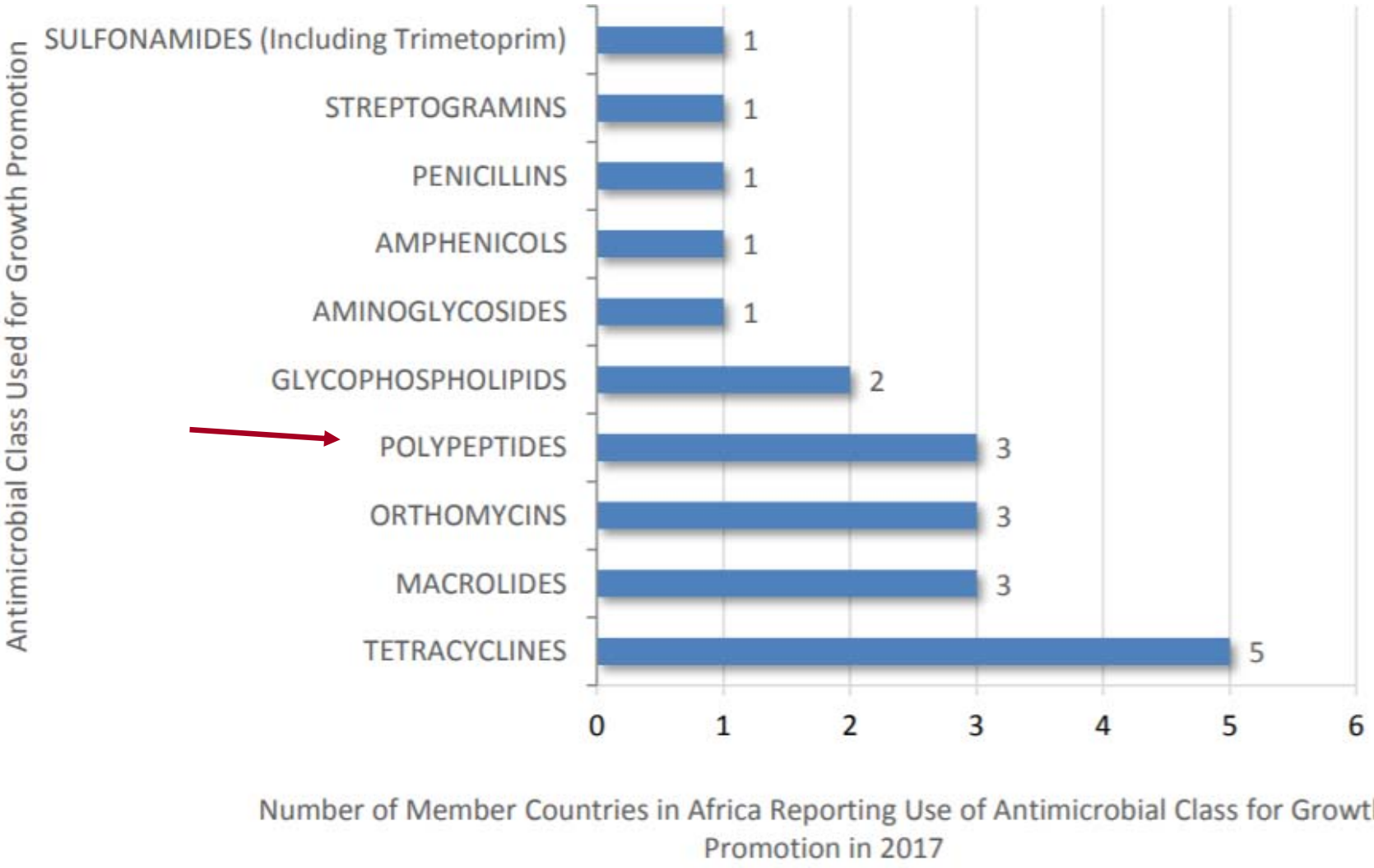
N = 155



Antimicrobial Agents Used for Growth Promotion in Animals in 31 Countries, Third Round (2017)



Antimicrobial Growth Promoters Used in Animals in 7 Member Countries in Africa in 2017



Antimicrobial Agent Quantities (mg) Adjusted by Animal Biomass (kg)

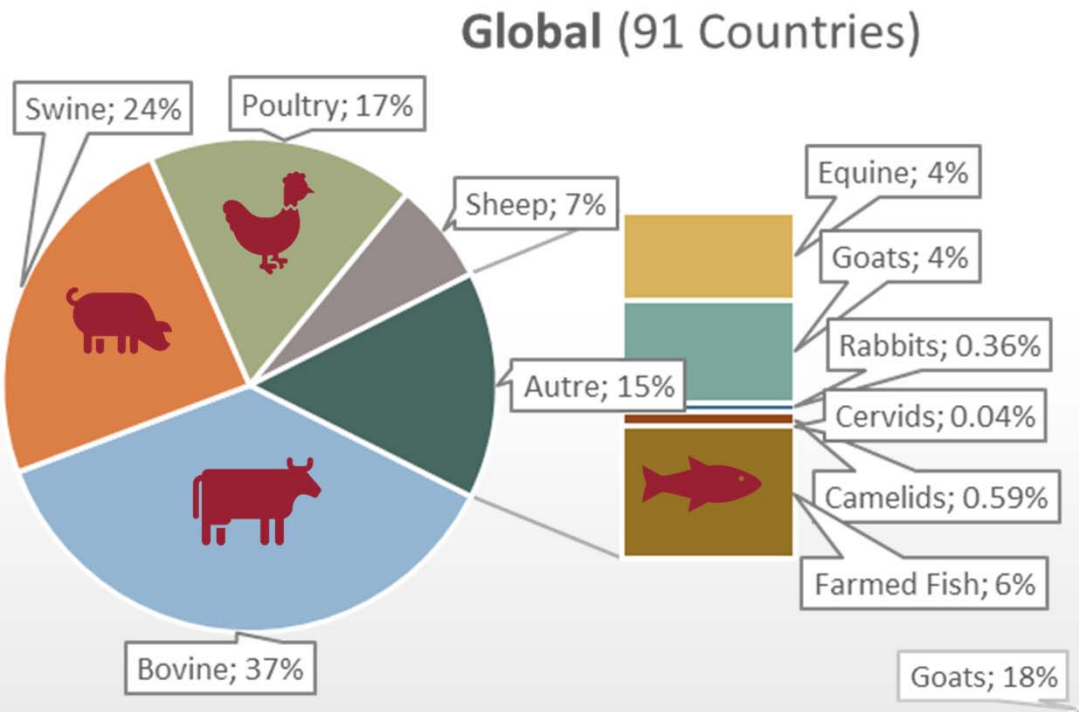
Work on the Animal Biomass (Denominator)

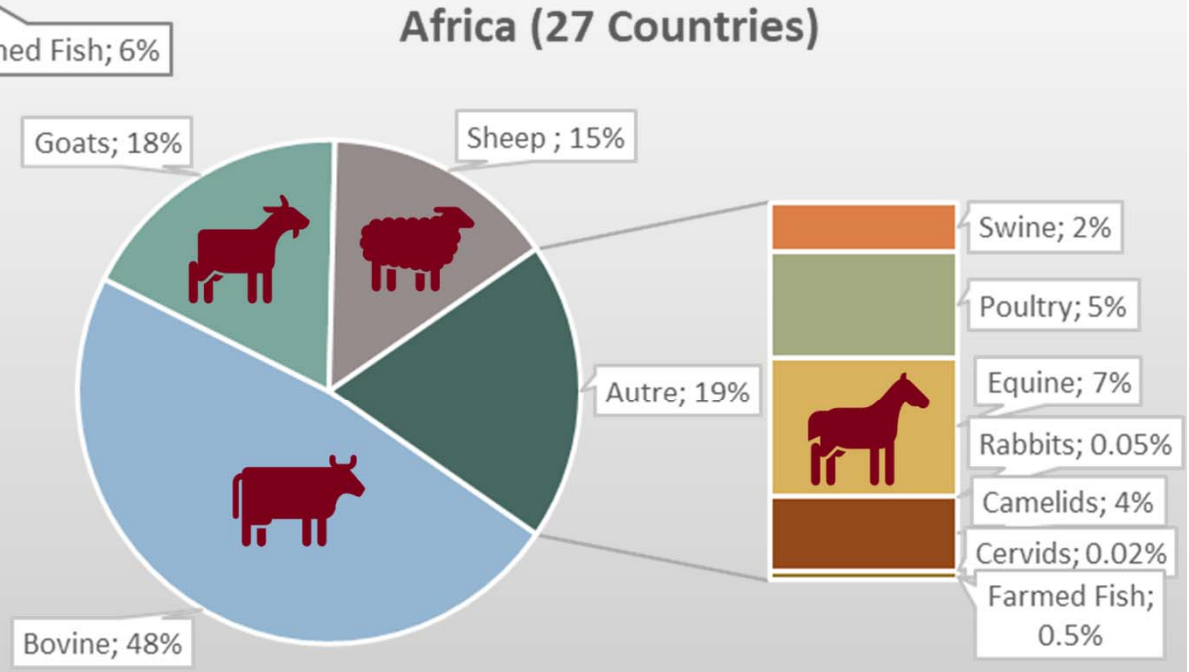
- Each country has variability in animal population numbers, production cycles and average weights.
- Animal biomass is calculated using country-level animal population data by species, data-derived estimates of their average weights by sub-region and country, and average reproductive rates of short-lived species (cycle factor).

→ kilogram animal biomass for use as a denominator in analysis of antimicrobial use data (mg/kg)

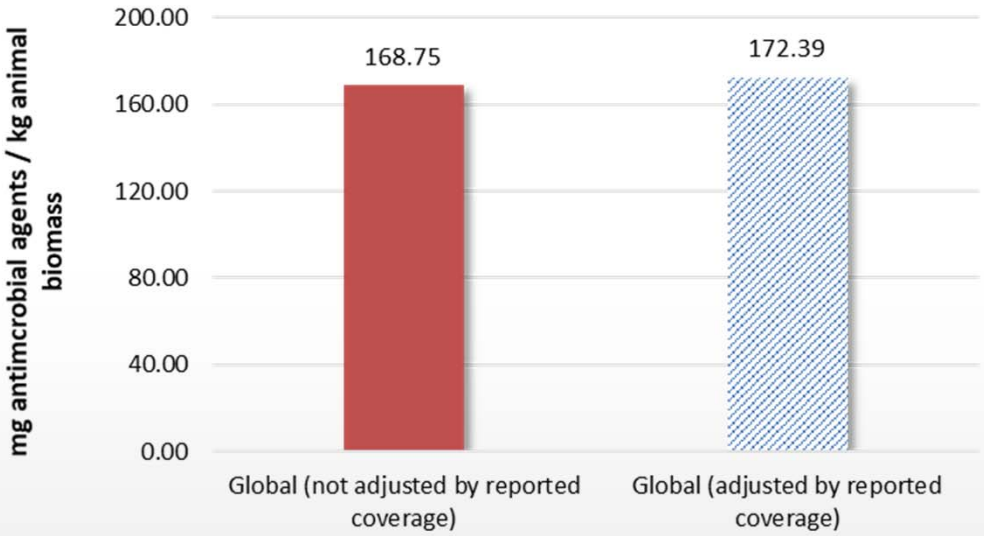
- **Allows for comparisons of trends between OIE Regions and over time.**

Species Composition in weight of Animal Biomass for Countries Reporting Quantitative Data for 2015





Global Quantities of Antimicrobial Agents Intended for Use in Animals as Reported for 2015, Adjusted for Animal Biomass (mg/kg)



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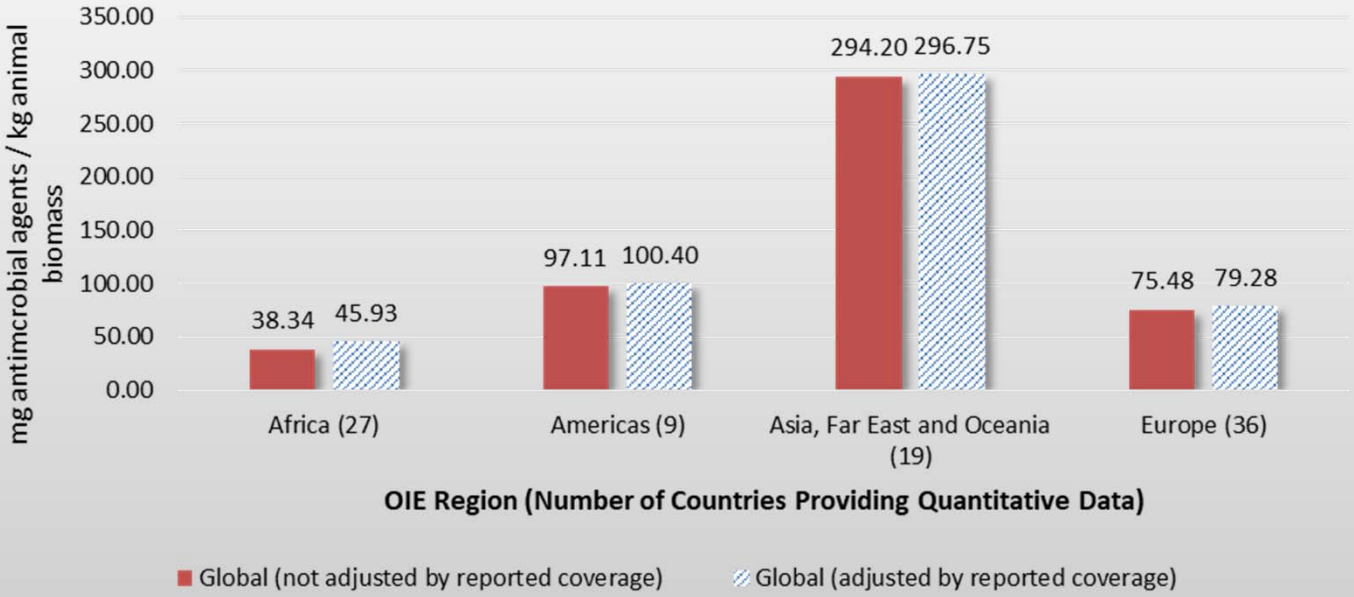
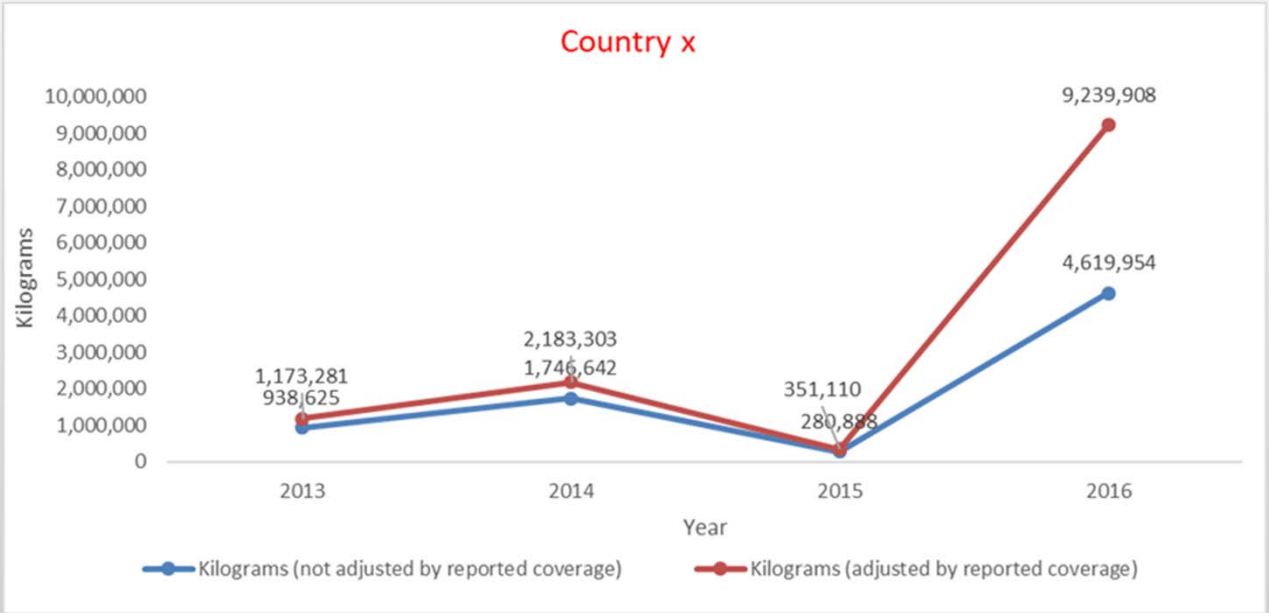


Exchange with Countries

- Validation of the data (emails – phone calls)
- Around 80% of the countries changed their original report after the clarifications:
  - Data sources
  - Quantities
  - Antimicrobial growth promoters
  - Reporting Option
  - Data Coverage



Way ahead & Sum up

Next Steps

- More participation from Members in the 5th Round of OIE AMU Data Collection – letters were sent on 13 Sept. 2019.

Long-term vision

- Provide information by animal species

Future Developments

- **AMU Database Project:** The goal of this project is to identify a software tool that is suitable for the Members Countries of the OIE to submit data for the OIE Annual Collection on Antimicrobial Agents Intended for use in Animals.
- Empower Member Countries with ownership of their data
- Explore collection of farm-level data (field studies)
- Refinement of Animal Biomass

GIGO

Garbage in Garbage out

Quality of output is determined by the quality of input

The importance of Data Quality

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