



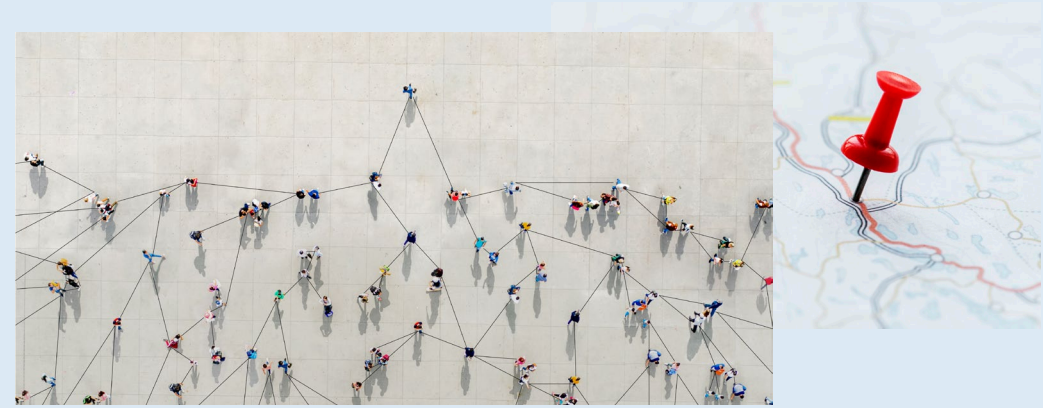
Calculation of the numerator: kilograms of active ingredients



1 Map a distribution system of the veterinary products at national level

2 If you request that different stakeholders calculate the data, make sure they receive a training and that you can have access to all their calculations

3 Estimate the coverage of the data



Different considerations for estimating the coverage:

- The number of stakeholders that contributed and their relative contribution to the total
- Animal species covered by the products
- Types of products covered (oral products are usually predominant)

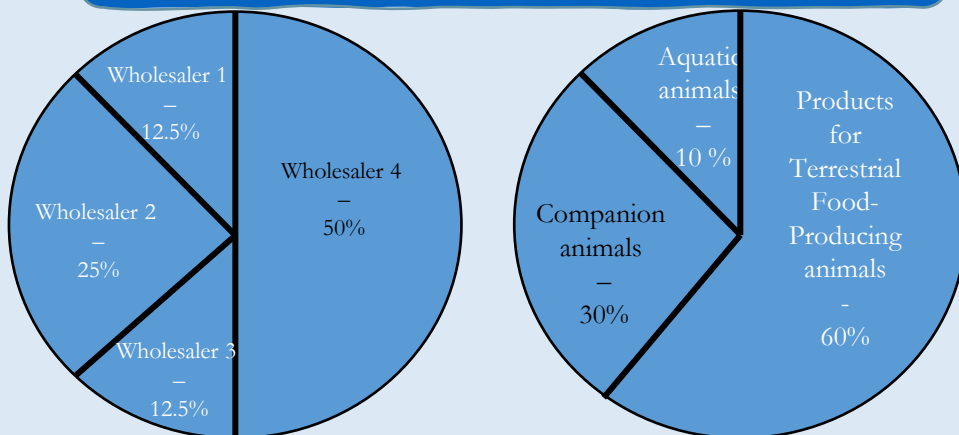


Table 2: Conversion of International Units (IUs) of certain antimicrobial agents into mg and relevant active entities, based on the ESVAC conversion factors¹

Antimicrobial agent in the veterinary medicine	Antimicrobial active entity for reporting to WOAHA	International Units per mg	Conversion factor to mg for multiplication
Apramycin	Apramycin	552	0.00181
Bacitracin	Bacitracin	74	0.013514
Benzylopenicillin (penicillin G) ²	Benzylopenicillin	1670	0.0006
Chlortetracycline	Chlortetracycline	1000	0.001
Colistin methane sulfonate sodium (colistimethate sodium INN)	Colistin	12700	0.000079
Colistin sulfate	Colistin	20500	0.000049
Dihydrostreptomycin	Dihydrostreptomycin	777	0.00129
Erythromycin	Erythromycin	920	0.001087
Gentamicin	Gentamicin	620	0.001613
Kanamycin	Kanamycin	796	0.001256
Neomycin	Neomycin	762	0.00131
Neomycin B (Framycetin)	Neomycin B (Framycetin)	706	0.00142
Oxytetracycline	Oxytetracycline	880	0.00114
Paromomycin	Paromomycin	750	0.00133
Polymyxin B	Polymyxin B	8403	0.000119
Rifamycin	Rifamycin	887	0.001127
Spiramycin	Spiramycin	3200	0.000313
Streptomycin	Streptomycin	760	0.00132
Tetracycline	Tetracycline	982	0.00102
Tobramycin	Tobramycin	875	0.001143
Tylosin	Tylosin	1000	0.001



Table 3: Conversion of content stated in mg, g or kg of derivatives/compounds of antimicrobial agents in the veterinary product into corresponding mg, g or kg antimicrobial active entity for reporting to WOAHA, based on the ESVAC conversion factors³

Derivate or compound	Active entity	Conversion factor for multiplication
Benethamine benzylopenicillin ⁴	Benzylopenicillin	0.61
Benzathine benzylopenicillin ⁵	Benzylopenicillin	0.68
Cefapirin benzathine ⁶	Cefapirin	0.78
Cefalexin benzathine ⁷	Cefalexin	0.74
Cloxacillin benzathine ⁸	Cloxacillin	0.78
Oxacillin benzathine ⁹	Oxacillin	0.77
Penethamate hydriodide ¹⁰	Benzylopenicillin	0.60
Procaine benzylopenicillin ¹¹	Benzylopenicillin	0.57



Context

- Not mandatory.
- Based on the Calculation Tool - Excel.
- This Module, as the Calculation Tool, collects data at a veterinary product level to help with the calculation of kilograms of active ingredients.
- Any information provided in the Module is confidential, regardless of the confidentiality status of the dossier.

Do not change		Optional	Optional	Mandatory	Mandatory	Optional	Optional																					
OIE ID		Data Source Used	ID Product Presentation	Product name	Please indicate the purpose of the product, according to its label declaration. (Medical use includes prevention of clinical signs)	Route of administration, according to its label declaration	Please indicate the Animals covered by the product																					
OIE ID		Data Source Used	ID Product Presentation	Product name	Please indicate the purpose of the product, according to its label declaration. (Medical use includes prevention of clinical signs)	Route of administration, according to its label declaration	Bovine	Swine	Sheep	Goats	Poultry	Carnivora	Equidae	Rabbits/Hares	Bees - Honey	Regalia	Fish - Undefined	Fish - Carni	Fish - Salmon or Trout	Fish - Trogas	Fish - Catfishes	Fish - Marine	Crustaceans	Molluscs	Amphibians	Canines	Felines	Ornamental fish
0	Imports	ASFR-20156	Example 1	Vet. Medical use	Parenteral																							Yes
0	Manufacture/Prod.	ASFR-20157	Example 2	Growth promotion	Oral	Yes			Yes																			

Table 1. Top Products with highest antimicrobial quantities

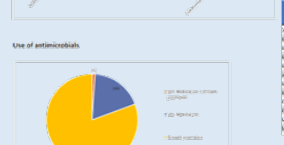
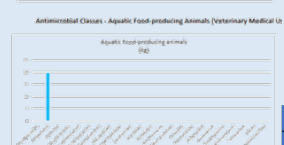
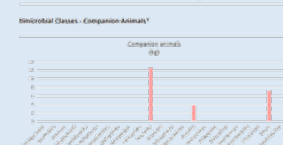
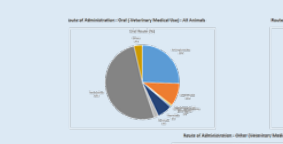
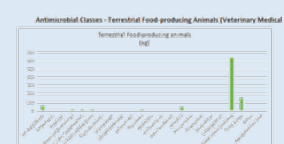
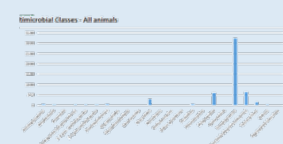
Prod. ID	Product Name	Active Ingredient	Quantity (kg)	Percentage (%)	Number of Animals	Package Size	Route of Administration
101	Product 1	Amoxicillin	1200.0	24%	10000	100 mg	Parenteral
102	Product 2	Enrofloxacin	800.0	16%	5000	500 mg	Parenteral
103	Product 3	Clavulanic acid	600.0	12%	3000	100 mg	Parenteral
104	Product 4	Trimethoprim	400.0	8%	2000	200 mg	Parenteral
105	Product 5	Spectinomycin	300.0	6%	1500	100 mg	Parenteral
106	Product 6	Streptomycin	200.0	4%	1000	100 mg	Parenteral
107	Product 7	Chloramphenicol	150.0	3%	750	100 mg	Parenteral
108	Product 8	Neomycin	100.0	2%	500	100 mg	Parenteral
109	Product 9	Polymyxin B	50.0	1%	250	100 mg	Parenteral
110	Product 10	Colistin	50.0	1%	250	100 mg	Parenteral

Table 3. Veterinary Medical Use of Antimicrobial Quantities, by OIE Animal Groups and Routes of Admin.

Animal Group	Parenteral (%)	Oral (%)	Topical (%)	Inhalation (%)	Other (%)
Bovine	85.0	10.0	3.0	0.0	2.0
Swine	70.0	20.0	5.0	0.0	5.0
Sheep	90.0	8.0	1.0	0.0	1.0
Goats	88.0	10.0	1.0	0.0	1.0
Poultry	95.0	3.0	0.0	0.0	2.0
Carnivora	80.0	15.0	3.0	0.0	2.0
Equidae	92.0	5.0	0.0	0.0	3.0
Rabbits/Hares	85.0	10.0	0.0	0.0	5.0
Bees - Honey	90.0	5.0	0.0	0.0	5.0
Regalia	88.0	8.0	0.0	0.0	4.0
Fish - Undefined	75.0	15.0	0.0	0.0	10.0
Fish - Carni	80.0	10.0	0.0	0.0	10.0
Fish - Salmon or Trout	85.0	10.0	0.0	0.0	5.0
Fish - Trogas	70.0	20.0	0.0	0.0	10.0
Fish - Catfishes	75.0	15.0	0.0	0.0	10.0
Fish - Marine	60.0	25.0	0.0	0.0	15.0
Crustaceans	50.0	30.0	0.0	0.0	20.0
Molluscs	40.0	40.0	0.0	0.0	20.0
Amphibians	30.0	50.0	0.0	0.0	20.0
Canines	80.0	10.0	0.0	0.0	10.0
Felines	75.0	15.0	0.0	0.0	10.0
Ornamental fish	60.0	25.0	0.0	0.0	15.0

Table 2. Animals covered by the antimicrobial quantities

Animal Group	# of Products	# of Animals
Bovine	10	10000
Swine	10	5000
Sheep	10	3000
Goats	10	2000
Poultry	10	1500
Carnivora	10	1000
Equidae	10	750
Rabbits/Hares	10	500
Bees - Honey	10	300
Regalia	10	250
Fish - Undefined	10	150
Fish - Carni	10	100
Fish - Salmon or Trout	10	75
Fish - Trogas	10	50
Fish - Catfishes	10	30
Fish - Marine	10	20
Crustaceans	10	15
Molluscs	10	10
Amphibians	10	7
Canines	10	5
Felines	10	3
Ornamental fish	10	2



Code	Medicine Name	Antimicrobial Class	Percentage (%)	Quantity (kg)	Percentage (%)	Quantity (kg)	Percentage (%)	Quantity (kg)
101	Confidacel	Aggregated class data	0	0.0	0	0.0	0	0.0
102	Amoxicillin	Amoxicillines	24	1200.0	0	0.0	0	0.0
103	Amoxicillin	Penicillins	0	0.0	0	0.0	1	0.0
104	Amoxicillin + Clavulanic acid	Penicillins	12	600.0	0	0.0	1	0.0
105	Amoxicillin	Penicillins	0	0.0	0	0.0	0	0.0
106	Amoxicillin + Sulbactam	Penicillins	0	0.0	0	0.0	0	0.0
107	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
108	Amoxicillin	Penicillins	0	0.0	0	0.0	0	0.0
109	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
110	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
111	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
112	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
113	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
114	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
115	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
116	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
117	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
118	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
119	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
120	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
121	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
122	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
123	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
124	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
125	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
126	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
127	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
128	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
129	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
130	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
131	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
132	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
133	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
134	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
135	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
136	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
137	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
138	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
139	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
140	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
141	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
142	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
143	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
144	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
145	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
146	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
147	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
148	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
149	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0
150	Amoxicillin	Amoxicillines	0	0.0	0	0.0	0	0.0

Images from the Calculation Tool - Excel



Thank you



For any question, contact info@ciiss.org