RESEARCH PROGRAM ON Livestock

More meat, milk and eggs by and for the poor

Antimicrobial use in smallholder pig production systems in Uganda

Amia Winfred Christine[1], Michel Dione[1], Louis Okello[1], Ulf Magnusson[2] and Barbara Wieland[1]

[1] International Livestock Research Institute, [2]Swedish University for Agricultural Sciences

Key findings

- Antibiotics (AB) are extensively used by smallholder pig farmers
- Pigs and poultry receive the highest amount of ABs at the farm
- Tetracyclines are the most used group of ABs
- Knowledge about the use of ABs is high among farmers
- Drivers of AB use include self-medication, lack of accurate disease diagnosis, and limited access to qualified veterinarians

Aim of study

Investigate knowledge, attitude and practises of antimicrobial use in smallholder pig production systems in Uganda.

Methods

Cross-sectional knowledge attitude and practices survey with 240 farmer in Lira and 242 farmers in Mukono districts.

Four gender disaggregated focus group discussions in each district.

Results

Pigs were the dominant livestock species kept by households included in the survey, accounting for 39% of livestock, followed by poultry (27%), cattle (18%) and small ruminants (17%).

Vet drugs were accessed by 68% of farmers through veterinary drug stores, other sources were private animal health care providers.

Expenditures for veterinary drugs was highest for pigs, followed by cows, small ruminants and poultry.

Antibiotics (27%) were the second most accessed drug after antihelminthics (37%).

Tetracyclines represent 50% of antibiotics used, followed by sulphonamides (12%), fluoroquinolones and macrolides 6% each and aminoglycosides (5%).

Drug self administration is common.

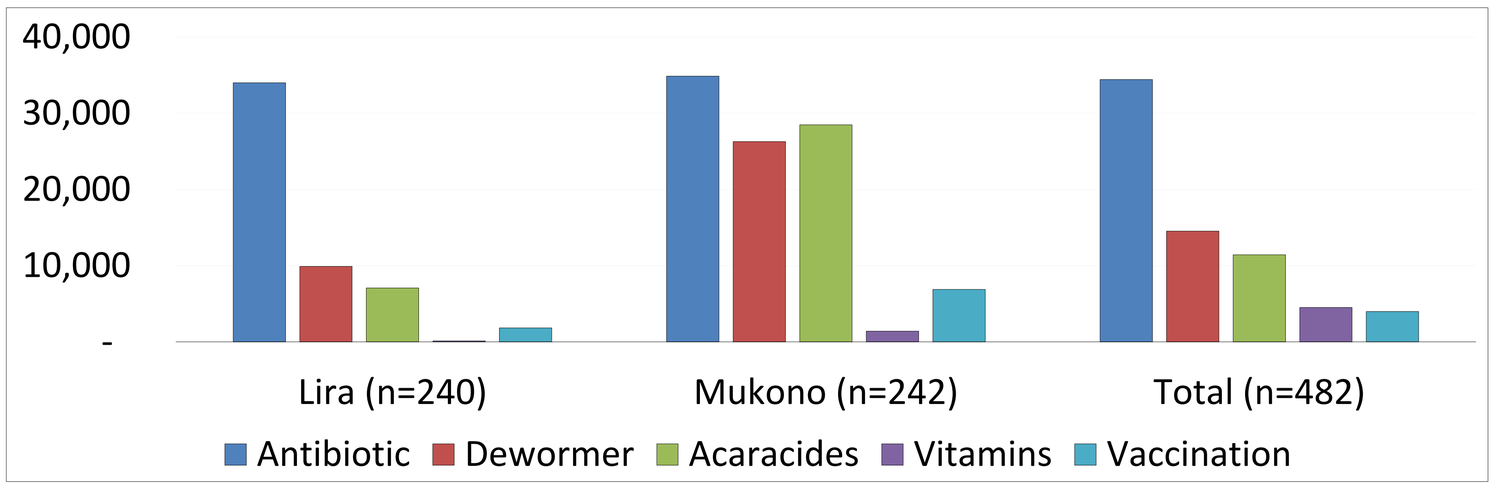
When they are used by farmers, vets were mentioned to decide on what treatment to be administered as they often knew more than the farmer.

Basis for treatment was mainly on symptoms as explained by the farmer / seen by prescriber and own judgement following farmers' explanation.

Men take the lead in decisions on most responsibilities of treatment.

Farmer's consumption of animal product treated with antimicrobials

Variable	n (%)
Do you consume milk from animals who were recently treated with antimicrobials?	
No	384 (84)
Yes	72 (16)
Do you consume eggs from animals who were recently treated with antimicrobials?	
No	344 (75)
Yes	112 (25)
Do you consume meat from animals who were recently treated with antimicrobials?	
No	319 (70)
Yes	137 (30)
Have you experienced situations where drugs did not work?	
No, never	364 (76)
Yes, sometimes	99 (21)
Yes frequently	19 (4)



Average farmer's drug expenditure by drug category in the last year in Ugx (USD 1= Ugx 3,675)

Recommendations

There is need for improved metrics to reliably monitor AM use in pig systems.

Policy analysis of the veterinary drug sector can help identify the roots of many challenges faced by farmers in accessing veterinary drugs in quality and quantity.

Other value chain actors such as veterinarians, drug stockist and drug distributors should be included in the assessment.

More anthropologic studies are needed to better understand socio-cultural practices.

Contacts: Michel Dione (m.dione@cigar.org); Barbara Wieland (b.wieland@cigar.org)

ILRI INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE · SLU · CGIAR RESEARCH PROGRAM ON Agriculture for Nutrition and Health · CGIAR RESEARCH PROGRAM ON Livestock