

Antimicrobial use in a peri-urban smallholder poultry system, Kenya

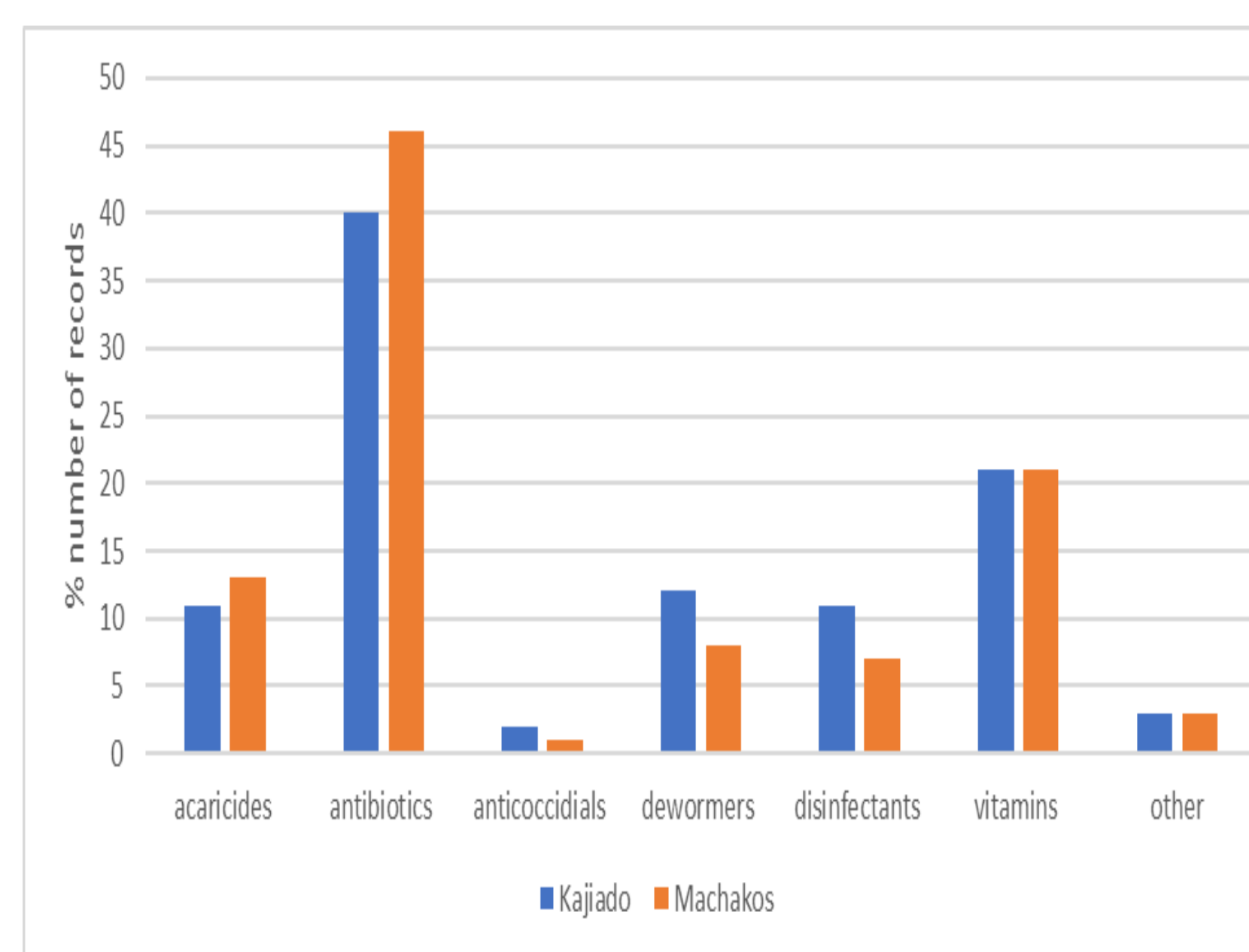
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Introduction

The poultry value chain is important for food security and income. Disease is a major constraint especially in smallholder settings. Using drugs to manage health in food animals can lead to antimicrobial resistance (AMR). The MAD-tech-AMR (JPIAMR2019-021) project aims to address AMR by developing an ICT framework (that brings together key actors in the poultry value chain and engages them in activities to reduce unnecessary use of antimicrobials, consequently reducing spread of AMR). The project targets poultry farmers in Kenya and Uganda. A baseline study was designed to provide data that would inform the intervention.



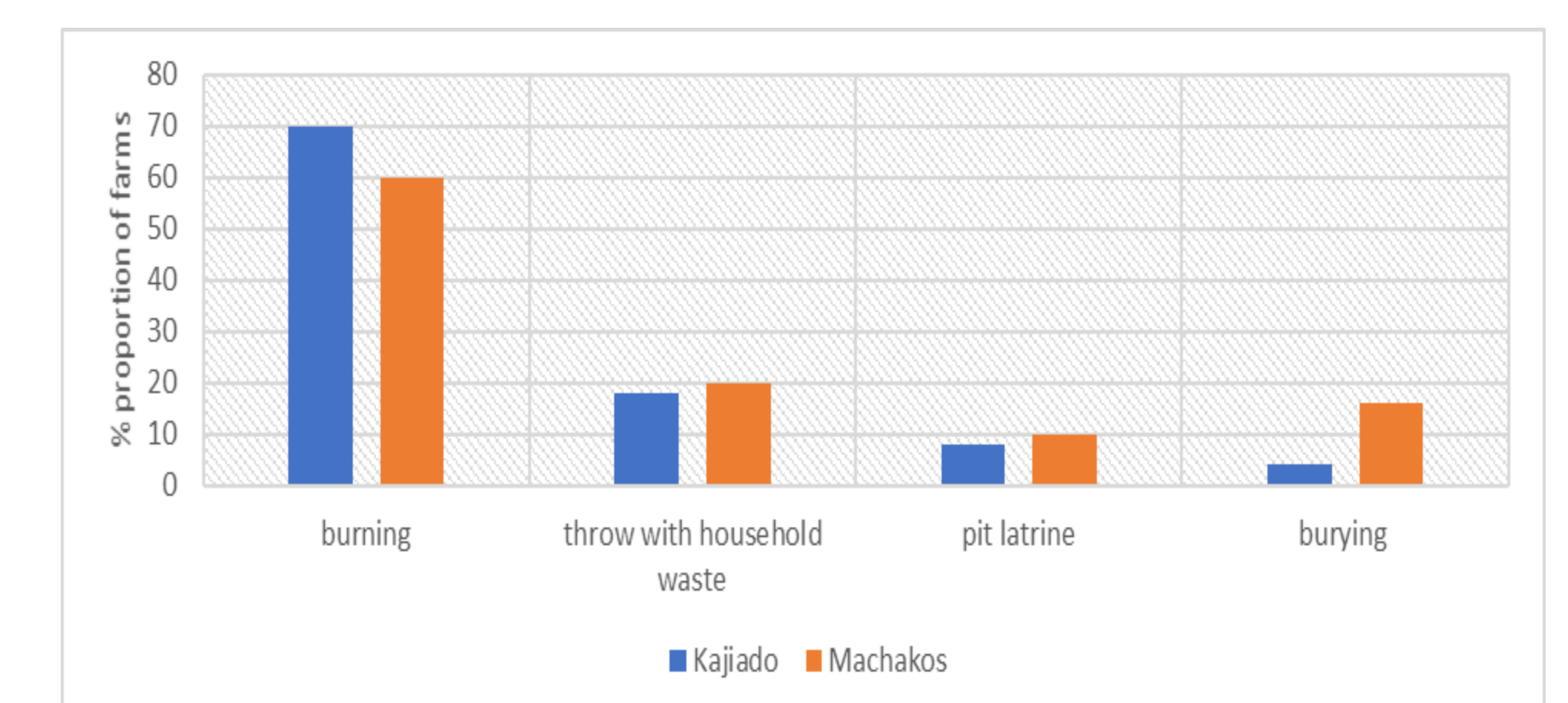
Drug categories reported in the study

Methods

Machakos and Kajiado counties in Kenya were purposively selected for the study. The baseline survey involved poultry farmers and key informant interviews (KII). Consent was sought from all participants. The questionnaire data were electronically captured using open data kit, downloaded as a MS Excel® file, and cleaned. The data were analyzed using both descriptive and thematic approaches. The findings were discussed in a meeting with key stakeholders.

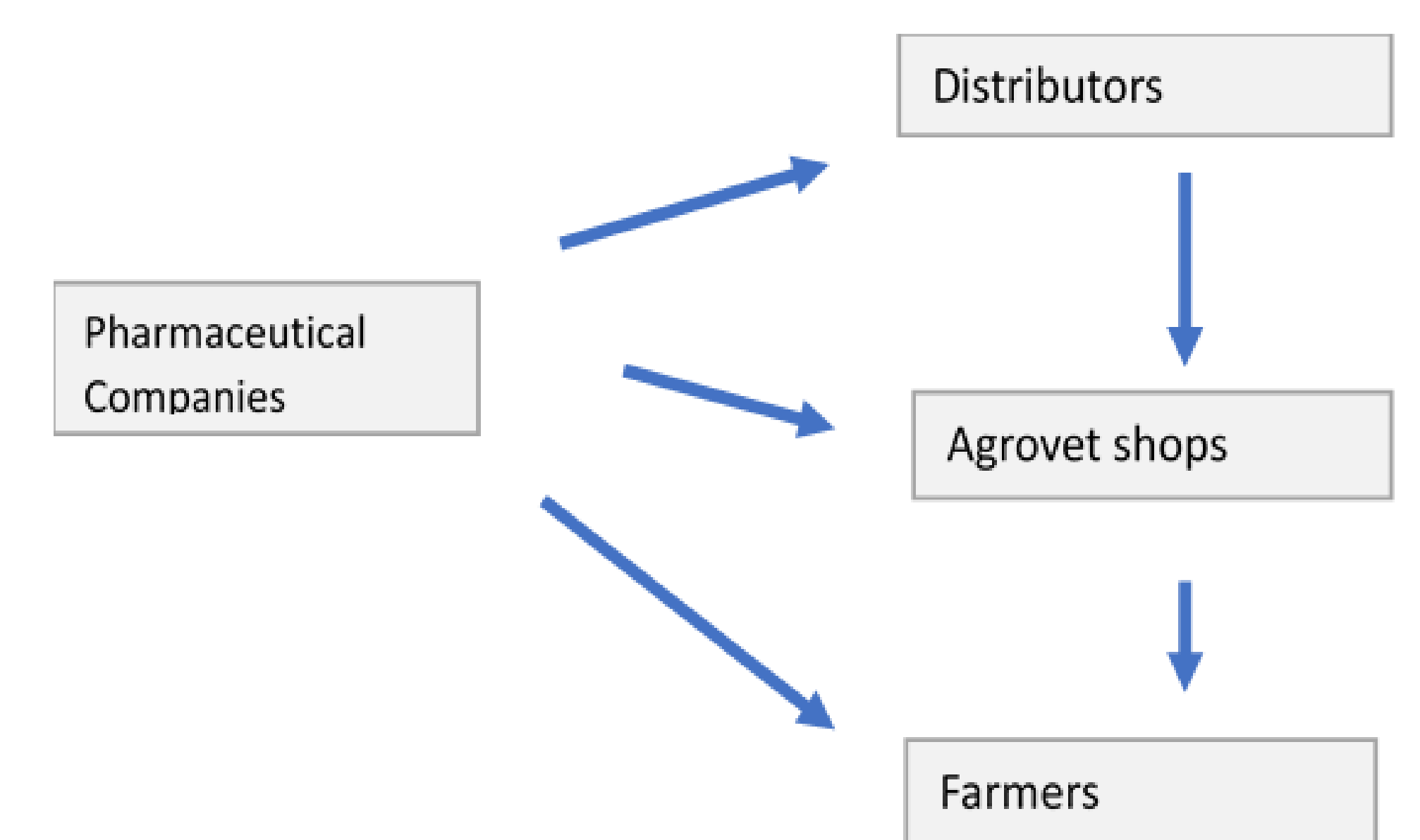
Findings

A total of 100 farmers were interviewed. The majority (58%) were >50 years old and kept chicken (100%), ducks (17%) and turkeys (16%). Sixty-six percent of the farms owned other livestock species, in addition to poultry. Sharing of the same drugs across livestock species was reported by 11 farmers. Nine farmers reported using human drugs to treat some poultry diseases including eye infections. Antibiotics constituted 43% of the drug records (n=706). They were mostly administered by the poultry farmers themselves (86%) through water (98%). Leftover drugs were stored for later use (89%; n=56) or disposed of (11%). Burning was the main method used for disposal of drug packages and empty containers (70% in Kajiado and 60% in Machakos).



Disposal of drug packages and containers

The drug distribution chain, as described by the key informants (n=17), included farmers (who sourced products from agrovet shops) and the agrovet shops (who were supplied by local distributors and pharmaceutical companies). Farmers reportedly purchased drugs without veterinary prescription and rarely observed the withdrawal periods. Quality was a concern especially for products that required reconstitution. Although expired drugs was a problem, agrovet shops had devised their own ways of managing this including monitoring expiry dates.



Veterinary drug distribution chain in the study areas

Conclusion

The study is part of the EU funded “MAD-tech-AMR- Management of animal diseases and antimicrobial use by information and communication technology (ICT) to control AMR in East Africa” project. The findings will inform the ICT framework – designed to improve AMU monitoring and address the current information gap on AMR.

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