Retrospective study of animal bite cases reported in Masaka and adjacent districts, Uganda from 2012 to 2015

Amia Winfred and Michel Dione
International Livestock Research Institute, Kampala, Uganda

Background
- In Uganda there is a high burden of animal bites in humans
- Dog bites play an important role in rabies transmission and account for 99% of all recorded human rabies cases
- Rabies is endemic in Uganda

Objective
Describe the demographics, human and animal characteristics from animal bite records obtained from Masaka and surrounding districts in Uganda.

Methodology
1052 animal bite cases were recorded over a period of three years (1st March 2012 to 1st March 2015) from the Masaka district local government veterinary department where most animal bite cases were liable to be reported from the Greater Masaka region

Data was analysed with stata® version 13.1 using logistic regression models.

A binary exposure variable was created from the animal bites species variable to distinguish between dog bites and that from other animal species.

Findings
- With animal species as a dependent variable, significant associations were noted for age, sex, animal ownership, health status of the animal during follow-up and recommended management after the bite incidence.
  - For culprit dogs, fate at follow up was usually unknown in rural settings, OR 2.9 (CI95; 1.5-5.6, p<0.01)
  - Men/boys had higher odds of getting bitten, 3.95 (CI95 1.86-8.04, p<0.01)
  - Dogs with unknown health status had twice the odds of biting, 2.34 (CI95; 1.40-4.83, p=0.02)
  - Dogs suspected of rabies had almost three fold the odds of biting, 2.63 (CI95; 0.02-6.82, p=0.05).
  - Unvaccinated and stray dogs were less likely to bite at 0.46 (CI95; 0.25-0.83, p=0.01) and 0.516 (CI95; 0.271-0.983, p=0.04) respectively.

Conclusions
There is potential for high burden of rabies in greater Masaka.

Intensive health education programs on rabies should be tailored to the 5-19 years age group.

Regular vaccination and promotion of responsible ownership of dogs and cats should receive high priority.