

Description of Animal Bite Cases at Kilifi County Hospital and Administration of Anti-Rabies Vaccine, July 2014 to June 2015

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Introduction

- **Animal bites occur mostly due to dog attacks**
 - **Playing with dogs increase the chances of bites**
- **Other biting animals include**
 - **Cats, donkeys, bees, snakes, scorpions and humans**
- **Administration of anti rabies vaccine is recommended to be given on day zero**



Problem Statement

- **More than 95% rabies exposures to humans are due to dog bites**
- **Estimated annual dog bite incidence in Kenya**
 - **234 per 100,000 persons (Kitala et al)**
- **An average of 2 fatal rabies cases is reported annually at Kilifi county hospital, both are related to dog bites**

Justification

- **An average of 1,800 dog bite cases reported in four main hospitals in Kilifi county annually**
- **Understand epidemiology of animal bites and administration of anti-rabies vaccine in the county**

Objectives

- **Describe animal bite cases reported in Kilifi County hospital**
- **To determine the time taken by bite victims to report to health facility**
- **To determine the level of administration of anti rabies vaccine**

Methods

Study design

Retrospective records review of animal bites registers at Kilifi County hospital

A case was defined as any person seeking animal bite treatment at Kilifi County Hospital between July 2014 to June 2015

Study Area



- County covers an area of 12,609.7 square km
- Population- 1,109,735 (535,526 Males: 574,209 Females)

- **Data abstracted from anti-rabies vaccine register using a standardized data abstraction tool**
- **Variables Collected:**
 - Sex
 - Age
 - Site of bite
 - Location of residence
 - Date of bite
 - Date of reporting to health facility
 - Type of biting animal
 - Administration of anti-rabies Vaccine

- **Continuous data was analyzed using measures of central tendencies and dispersion**
- **Categorical data was also analyzed using frequencies and proportions**

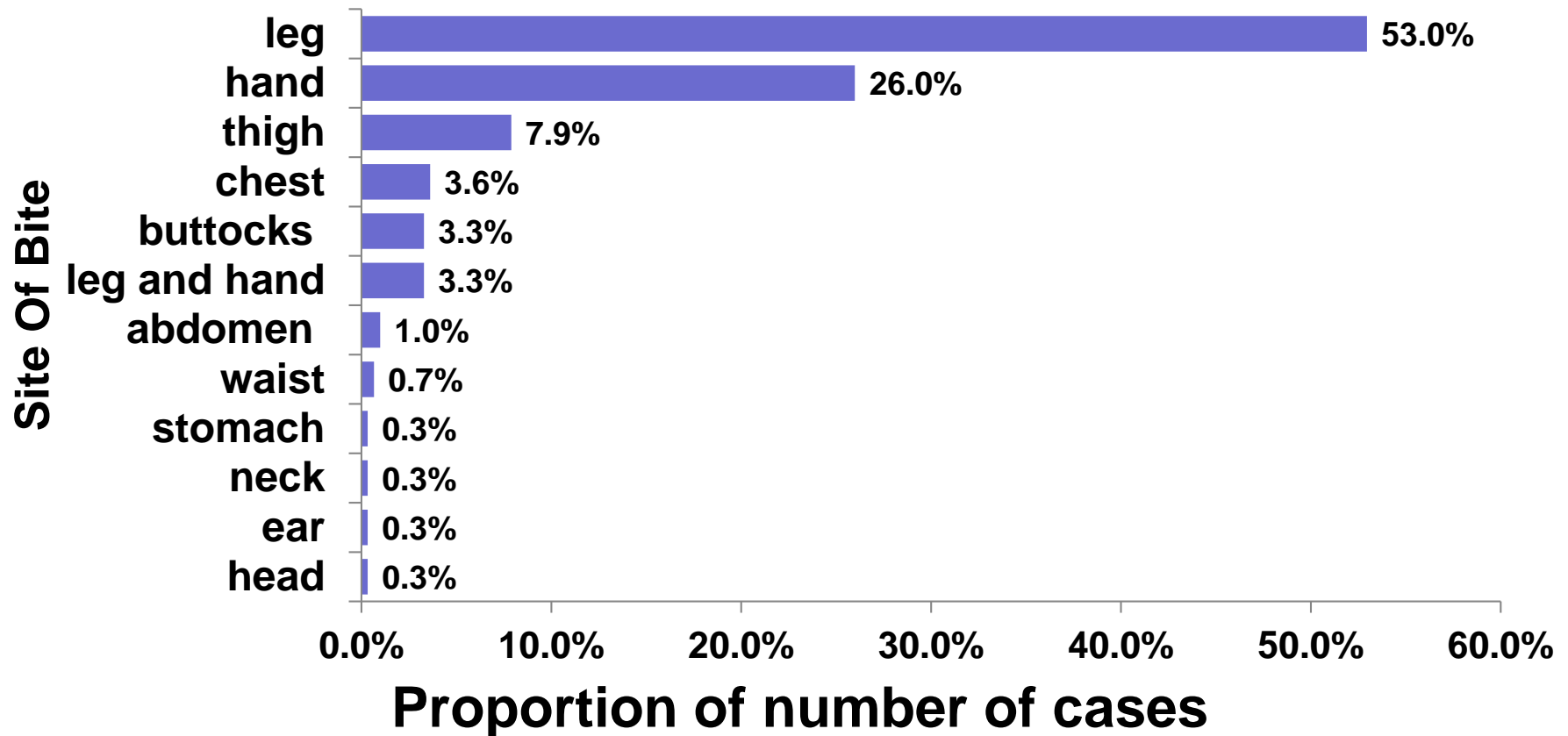
Results

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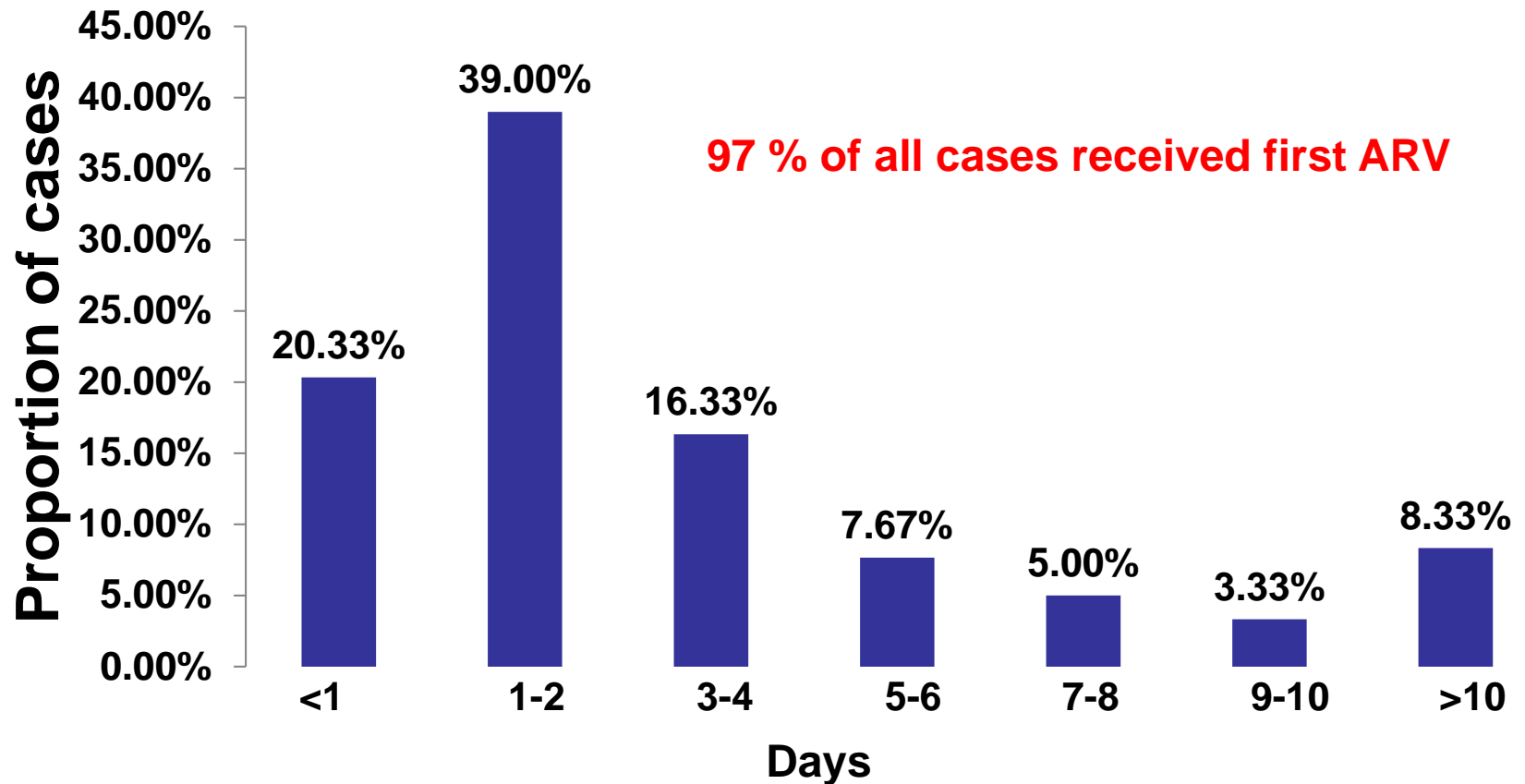
- **Total of 308 animal bites cases reviewed**
- **Median age:17 years (Range :1 – 84 years)**
- **Male persons reported more cases at 181 (59%)**
- **The age group 5 – 15 years old had the highest number of cases (35%)**
- **Leg was the most bitten site at 161 cases (53%)**

- **Most bites caused by dog- 302 (98%)**
 - **Owned dog-181 cases (59%)**
- **Median time taken between bite and reporting to health facility was 2 days (range of 0 – 156 days)**
- **Most bite cases came from Kilifi north sub county, 166 (55%)**
- **Of the bite cases reported, 299 (97%) received the first anti rabies injection**

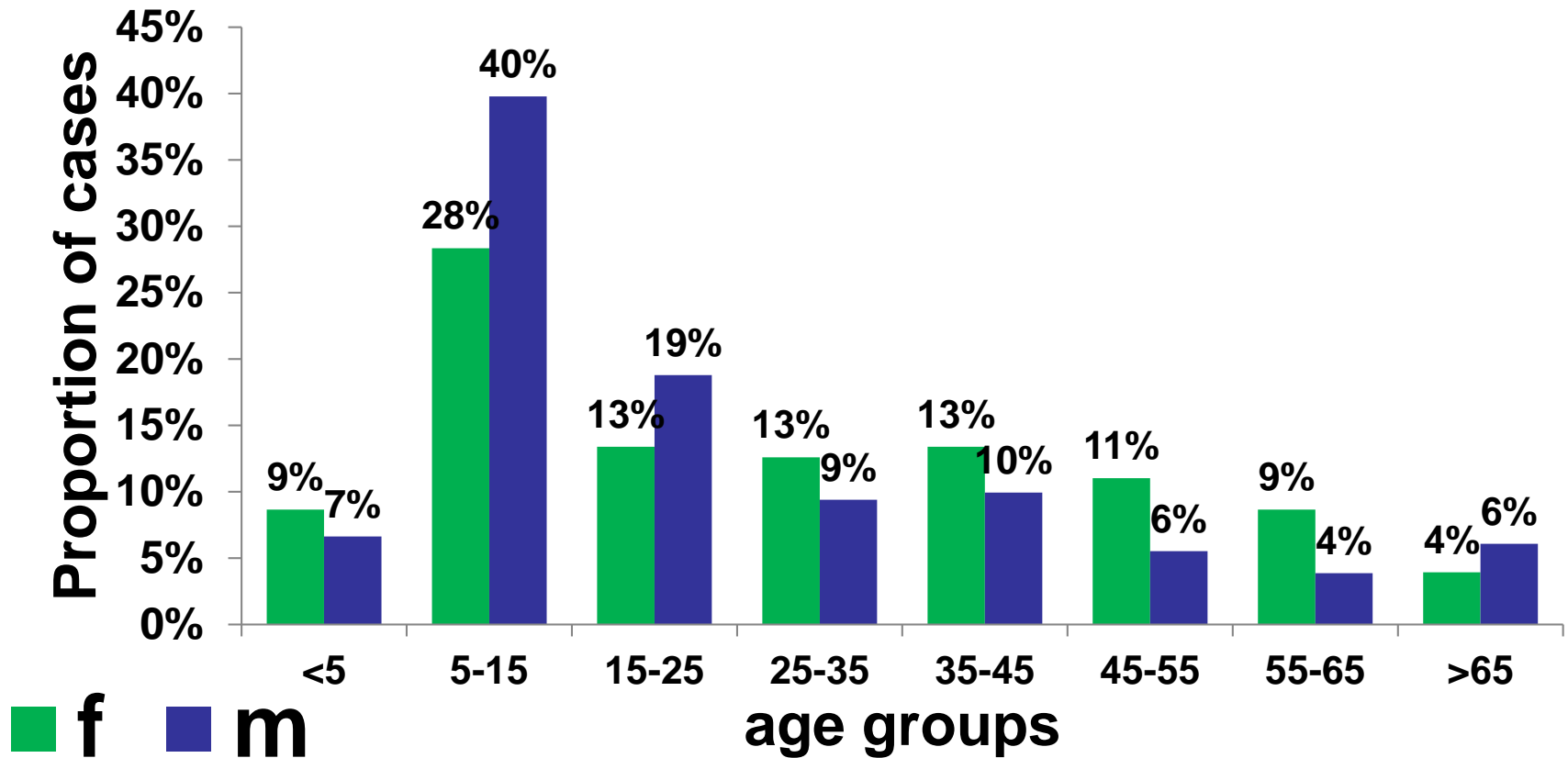
Distribution of bite cases, by site of bite, Kilifi county hospital, 2014-2015 (n=308)



Time taken to report to health facility following bite incidence

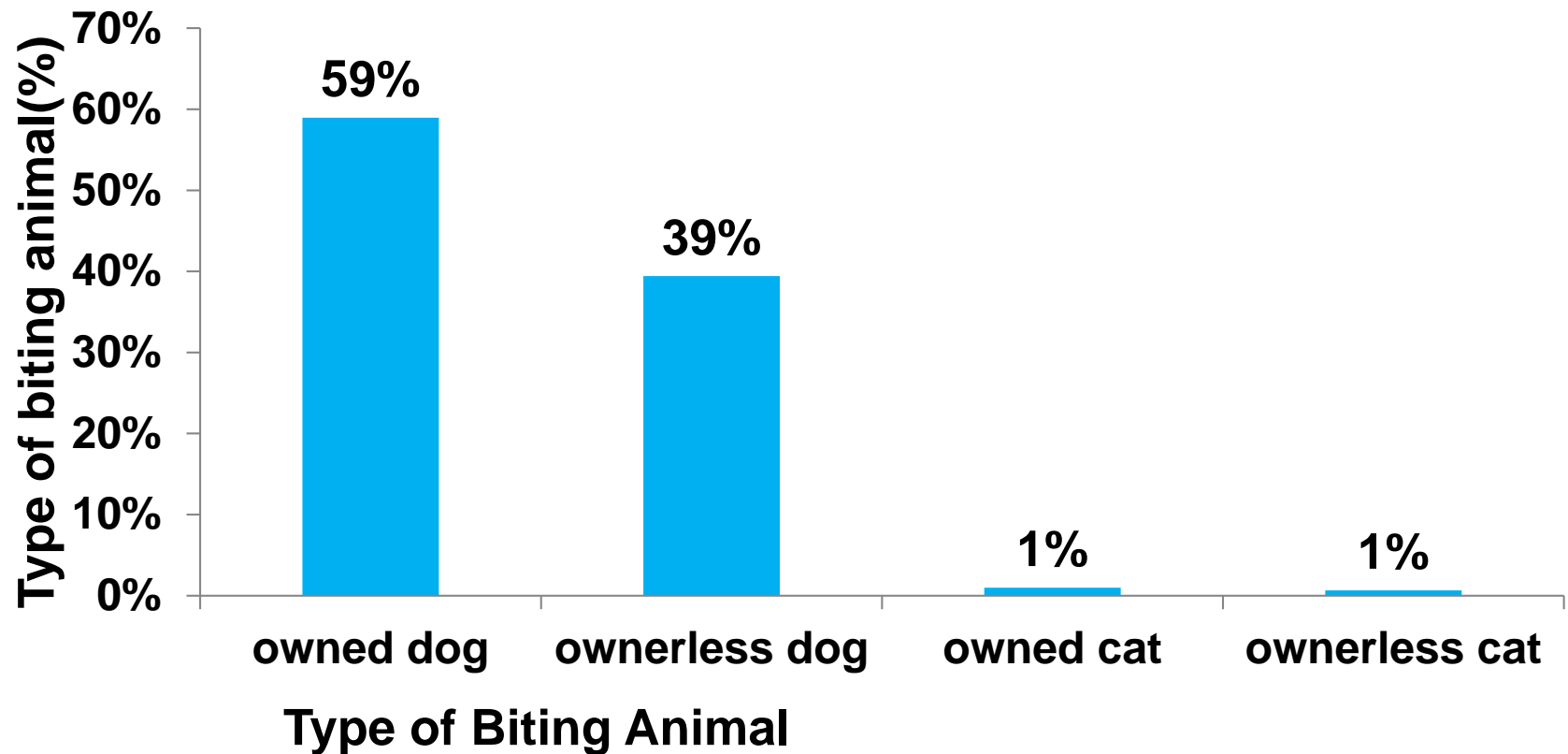


Distribution of bites cases, by age group and sex, Kilifi county hospital, 2014-2015 (n=308)



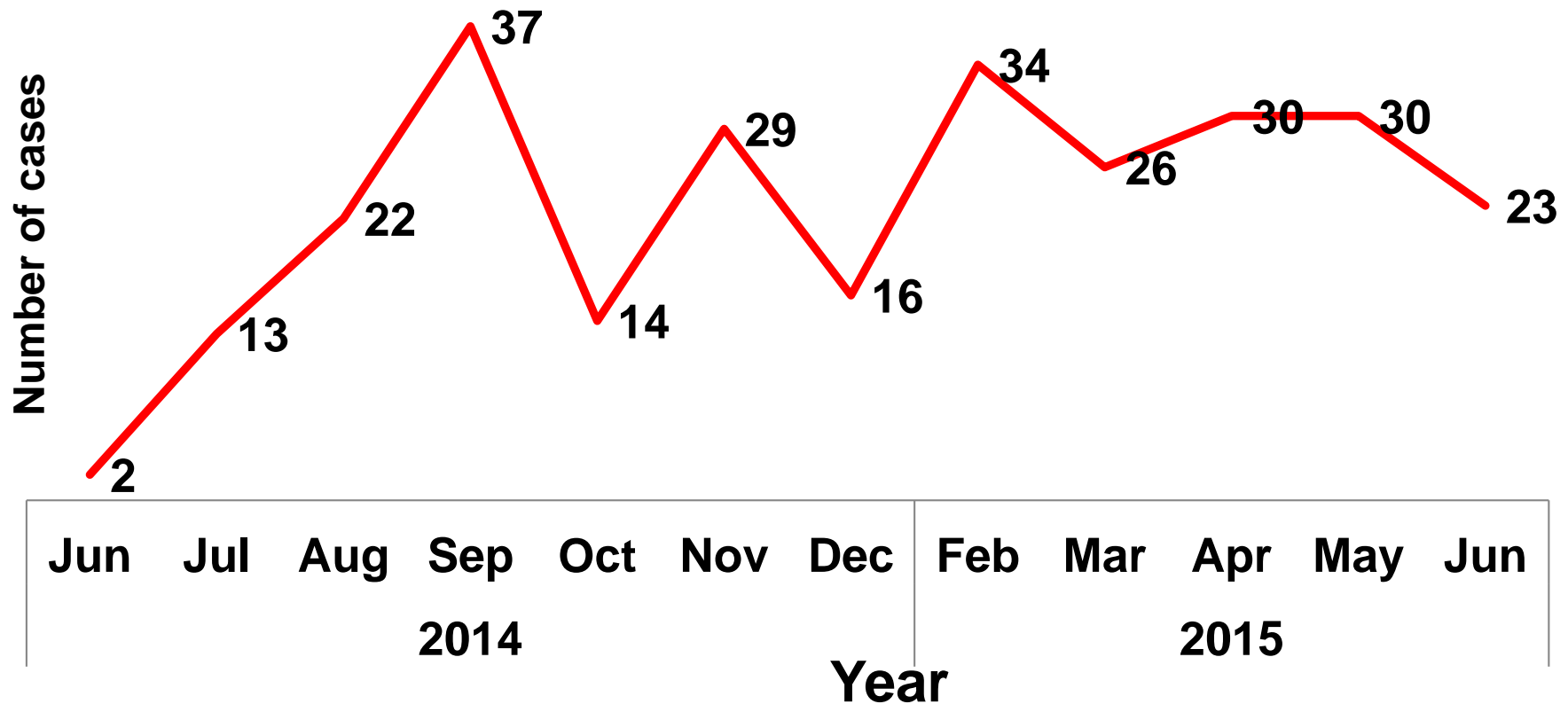
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Distribution of bite cases by type of biting animal, Kilifi County Hospital 2014 – 2015 (n=308)



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Distribution of bite cases, Kilifi county hospital by month and year, June 2014- July 2015 (n=308)



Distribution of bites, Kilifi county hospital, 2014-2015 by place Sub-County (n=308)

Sub County	Number Of Cases	Proportion
Kilifi North	166	54.61%
Kilifi South	70	23.03%
Ganze	61	20.07%
Malindi	3	0.99%
Magarini	2	0.66%
Mombasa**	1	0.33%
Lamu**	1	0.33%
Grand Total	304	100.00%

** - counties

Conclusions

- **Children and young adults reported higher number of bites**
- **Almost all bites are caused by dogs**
 - **Mostly by Owned dogs than ownerless dogs**
- **Most of the bites occur on the extremities**
- **Almost all cases received the first antirabies vaccine injection**
- **The time taken to receive the first anti rabies vaccine was less than 72 hrs for most cases**

- **September 2014 recorded the highest number of cases**
 - **Dog mating season**
 - **Dry season, dogs scavenging**

Recommendations

- **Increase awareness to Children on dog bites**
 - To be made aware of dangers of dog bites and ways of safely handling dogs
- **Enhanced linkages and collaboration between veterinary and human health services**
 - Judicial administration of PEP



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Recommendations cont'

- **Increase awareness on responsible pet ownership**
- **Advocate for 70% rabies vaccination to dogs and cats vaccination annually**

References

- 1. The Merck Veterinary Manual, Ninth Edition**
- 2. World health organization : dog rabies control**
(www.who.int/rabies/animal/dogs/en)
- 3. CDC rabies information**
<http://www.cdc.gov/rabies/>

Acknowledgement

- **Field Epidemiology & Laboratory Training Program**
- **Public health team in Kilifi county headquarters**
- **County veterinary services directorate**

Thank You