

**ESTIMATING PREVALENCE OF BRUCELLOSIS IN
LIVESTOCK AND ASSESSMENT OF KNOWLEDGE,
ATTITUDES AND PRACTICES OF RESPECTIVE
COMMUNITIES IN BARINGO COUNTY**

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INTRODUCTION

- Livestock play crucial role in most of the sub-Saharan Africa- Food, income, prestige etc.
- Main challenges are pasture and water scarcity, diseases; including E.C.F, anthrax, brucellosis etc.
- Most diseases are poorly controlled in most African countries, including Kenya.

Literature Review

Brucellosis in animals

- Brucellosis is a zoonosis caused by bacteria of genus *Brucella*.
- It is characterized mainly by reproductive failures and wastages in domestic animals.
- There are nine spp. of *Brucella*.
- Most of these *Brucella* have preferred hosts, although cross infections do occur.

Brucellosis in Animals cont'

- In domestic animals, the most common and important *Brucella* are: *B. abortus*, *B. suis* and *B. melitensis* as well as *B. canis* in canids.
- Brucellosis in bovines and small ruminants (*B. abortus* and *B. melitensis*) appear to be the most widely spread especially among the pastoralists in Kenya, (McDermott and Arimi, 2002)

Brucellosis in Animals cont'd

Transmission

- Domestic ruminants become infected by ingesting the organisms.
- Inhalation, conjunctival routes and intra-uterine semen deposition during A.I can lead to its transmission.
- Dumping of contaminated materials enhances spread in the environment posing a risk to both animals and humans.

Brucellosis in Animals cont'd

Epidemiology

- In Africa, the epidemiology of the disease in humans and livestock is not well understood (McDermott and Arimi, 2002).
- Prevalence of bovine brucellosis in Sub-Saharan Africa is between 0.2-25.7 % (Mangen *et al.*, 2002).
- Prevalence in Kenya is 2% -15% (Kang'ethe, 2001, Mugambi, 2001, Arimi, 2005 etc).
- Highest prevalence among the pastoral and agro-pastoral communities.

Brucellosis in Humans

- People become infected by ingestion and contact with contaminated animal products/infected animal tissues, breast milk, tissue/organ transplant.
- It is also an occupational disease = Vets, farmers, lab personnel etc.
- *B. melitensis*, *B. suis*, *B. abortus* and *B. canis* affect humans in descending order of pathogenicity.

Brucellosis in humans cont'd

- It is characterized by undulating fever and generalized aches.
- It thus resembles malaria and has often been wrongly treated as such (Alturi, 2011).
- Globally, there are about 500,000 human cases annually(Alturi, 2011).