

Investigations into the prevalence of bovine brucellosis and the risk factors that predispose humans to infection among urban dairy and non-dairy farming households in Dagoretti Division, Nairobi, Kenya

Abstract:

To explore the knowledge, attitudes and practices of dairy and non-dairy farming households in Dagoretti in regard to the risk posed by bovine brucellosis and determine the prevalence of the disease in urban dairy cattle. A cross sectional study. Urban and Peri-urban dairy farming and non dairy farming households in Dagoretti division, Nairobi. Two hundred ninety nine dairy farming and 149 non dairy farming households. Segregated focus group discussions, administration of a household questionnaire and collection of unboiled milk from dairy and non dairy farming households were the instruments used to gather data on the practices, attitudes, perceptions and prevalence of bovine brucellosis. Three hundred and ninety three milk samples were collected and analysed for the presence of antibodies to *Brucella abortus* in an indirect ELISA. The apparent prevalence of bovine brucellosis from milk was estimated at 1% for the samples collected while in dairy farming households the prevalence was 1.1% [0.2, 3.4%] and 0.7% [0.4%] in non dairy farming households.. Thirty percent (90/296) of dairy respondents and 22% (32/147) of non-dairy respondents knew of the existence of brucellosis. Risk of contracting brucellosis was very low considering that milk is boiled together with other ingredients used in making tea and porridge. However, 31% (93/296) and 22% (31/143) of dairy and non dairy farming households respectively made traditionally fermented milk without first boiling the milk. This practice may predispose this group to brucellosis. The low prevalence of bovine brucellosis requires constant surveillance in case the prevalence rates do change. Education of dairy farming households who are more at risk of contracting brucellosis on the transmission pathways and risk factors is required in order to lower further the prevalence of bovine brucellosis in Dagoretti.