The prevalence of antibodies to Brucella abortus in marketed milk in Kenya and its public health implications

Githua, A; Macharia, J K; Nduhiu, J G; McDermott, J J; Omore, A O; Arimi, S M; E K, Kange'the
http://hdl.handle.net/10568/1585
http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/32816
Date: 2000-11-06

Abstract:

The risk of infection by milk-borne brucellosis is one reason for public health regulations which discourage informal milk markets that sell unpasteurized milk. However, these regulations are not generally implemented in many developing countries. Kenya is a typical example, with over 85% of milk sales passing through informal channels. Consumer practices to reduce or eliminate potential infection by milk-borne health hazards under these circumstances have rarely been studied. Seasonal survey data were collected between January 1999 and January 2000 from informal milk market agents of various cadres and from households consuming unpasteurized milk in rural and urban locations in central Kenya. Respondents were randomly selected within production system (extensive and intensive) and human population density (urban, peri-urban and rural) strata. In addition, pasteurized and packaged milk samples from five processors were collected. Samples were screened for antibodies to Brucella abortus using the milk ring test (MRT) (unpasteurized milk) and indirect antibody ELISA (both unpasteurized and pasteurized milk). Milk samples originating from farms in the extensive production system and those containing milk from many sources were associated with higher antibody detection proportions. Five percent of all raw milk samples collected from consumer households and 4% of samples collected from various levels of bulking of market samples were positive to the ELISA. There was poor to no agreement between the two antibody detection tests. All urban consumers and 96% of rural consumers of unpasteurized milk indicated that they boil the milk (in tea or otherwise) before consumption. The implications of these results on milk marketing in Kenya are discussed.