

It is a common disease among pastoralists and nomadic herdsmen in developing countries, who are continually exposed to potentially infected animals. In Africa the disease incidence is largely unknown because many cases are missed out due to lack of diagnostic facilities. Human brucellosis has been known in East Africa since 1910 when Bruce described the disease known as "*muhinyo*" (crippler) in Uganda and the Maasai name "*nange 'da*" has a similar meaning. The disease is reported to be wide spread in Kenya. The Ministry of Health report shows that the cases range from as low as 100 to as high as 1000 each year. Human beings are infected by all species of *Brucella*. *Brucella melitensis* is more infective and virulent than *Brucella abortus* with *Brucella suis* being intermediate. The aim of this study was to determine the socio-medical factors underlying the disease prevalence among the nomads in Bubisa sub-location of Maikona Division of Marsabit District. Descriptive cross-sectional study design was used and 400 respondents were selected following systematic random sampling method. Interview schedule for households, key informants and focus group discussions were used for data collection. Odds ratio and chi-square test was used for testing relationship between variables. A majority of the subjects (75.8%) had no formal education, with the main occupation being livestock rearing (78.2%) and the average household size being 5-6 persons. Statistical test showed that women are more susceptible to infection than men in this community (Cross products odds ratio=1.62,  $\chi^2=4.02$ ,  $df=1$  and  $(p)<0.05$ ). Most informants (73.3%) had knowledge on the prevalence of brucellosis in the area, locally referred to as "*dukub annani*"(the disease of the milk). A substantial number of households interviewed (31.8%) had experienced at least a case of human brucellosis in the last one year. Consumption of raw milk without boiling (38.5%) is among the risk factors reported to contribute to disease prevalence in the area. Statistically significant relationship was established between consumption of raw milk and the household prevalence of brucellosis (Cross product odds ratio=1.64 and  $\chi^2=4.30$ ,  $df=1$  ( $p)<0.05$ ). Similarly, a significant relationship was observed between household prevalence of brucellosis and drinking of animal blood (Cross product odds ratio=1.64 and  $\chi^2=4.30$ ,  $df=1$  ( $p)<0.05$ ). Households with large livestock population reported more cases of the disease. Majority of reported cases (62.2%) were from households with livestock population of more than 100 as compared to 19.7% and 17.3% reported by households with a livestock population of 50-100 and 0-49, respectively. A large majority 347 (86.8%) reported that one container is used for milking and milk storage, a statistically significant relationship was found to exist between the household prevalence of brucellosis and milk harvesting (Cross products odds ratio=3.87,  $Z=17.60$ ,  $df = 1$  ( $p) <0.05$ ). Thorough health education especially on the mode of transmission of brucellosis and the main risk factors such as consumption of raw milk, consumption of animal blood and failure to seek treatment from health institutions needs to be emphasized. Accessibility and affordability of treatment services is a matter that needs to be addressed by the health department. It is also important to note that some people opted for traditional treatment instead of modern treatment because of inaccessibility (12%) and un-affordability (13.7%).