

# Public Knowledge and Awareness of Tick-Borne Pathogens and Diseases: A Cross-Sectional Study in Ghana

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## Abstract

Aims Tick-borne diseases (TBDs) pose a significant and increasing health threat globally. About 45 tick species have been described from Ghana, located in Sub-Saharan Africa, but it is unknown how well-informed local citizens are regarding the risks posed by ticks and TBDs. This research aimed to assess the public knowledge and awareness of TBPs and TBDs in Ghana through questionnaires. The survey underscored the potential veterinary and public health threats of TBDs, emphasizing the importance of awareness creation. Methods Utilizing a cross-sectional design, we collected data from 538 respondents across all 16 regions of Ghana through questionnaires and assessed public knowledge and awareness of TBDs. We used both an electronic survey form and a structured interview questionnaire to assess respondents' knowledge of ticks and TBDs. Descriptive table statistics were used to tabulate frequencies and percentages of all categorical responses and more closely tested for associations between certain variable pairs. Results Results from the study identified limited public knowledge and awareness among animal owners and non-animal owners in Ghana. Furthermore, the results highlighted the association between domestic animal ownership and increased human-tick encounters. The findings suggest a pressing need for targeted public education on TBDs in Ghana. Conclusions As Ghana imports livestock, the risk of TBD spread demands attention. Overall, the survey contributes essential insights for veterinary and public health interventions, stressing the urgency of raising awareness and understanding among the public regarding the risks associated with ticks and TBDs. The cohabitation of humans with a variety of domestic animals, coupled with varying levels of veterinary service utilization, presents opportunities for targeted public health interventions.

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