

Abstract:

African sausages are local popular delicacies in Kenya. Demand for these sausages has resulted in this delicacy's vendors being on the increase. However, health risk posed to unsuspecting consumers of African sausages sold in informal, unhygienic make shift road-side kiosks in major cities of Kenya is largely unknown. A descriptive study was designed to isolate, characterize and quantify bacteria from African sausages sold in Nairobi County. A total of one hundred (100) African sausages (62 roasted and 38 non-roasted) were conveniently collected from three meat eatery points of Westlands, Kangemi slum, and Pangani estates. Five genera of bacteria, namely, *Staphylococcus* spp. at 50.4%, *Bacillus* spp. at 19.5%, *Streptococcus* spp. 9.8%, *Proteus* spp. 2.4%, and *E. coli* spp. at 1.6%, were isolated from 80 African sausage samples. The total aerobic bacterial count range was between $1.0-9.9 \times 10^1$ and $1.0-9.9 \times 10^7$ log cfu/g with 37 samples having total aerobic bacterial count of between $1.0-9.9 \times 10^4$ and $1.0-9.9 \times 10^7$ log cfu/g. There was no significant difference ($p > 0.05$) in distribution of isolates and total aerobic bacterial count across geographical sites studied among the roasted and non-roasted African sausages. This study has demonstrated presence of bacteria in African sausages which are potentially zoonotic to humans. Comprehensive study is needed to sample more eatery meat points in Nairobi and other areas in order to demonstrate pathogenic attributes of these isolates and establish the respective total aerobic bacterial count. There is also need to establish the sources of bacteria due to high total aerobic bacterial count determined in the current study.