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**Non-typhoidal *Salmonella* at Slaughter and Retail points of the Pork Value Chain in Uganda**

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**Abstract:**

**Background/Objective:** Non-typhoidal *Salmonella* (*NTS*) is the leading cause of gastroenteritis globally, and meat pathways an important source of transmission to humans. Pigs and pork have been implicated in *NTS* transmission through the pork value chain. Despite the fact that Uganda leads in pork consumption in East Africa, comprehensive research on *NTS* in the pork value chain is lacking. This study aimed to establish *NTS* prevalence in slaughterhouse workers and at various points in the pork value chain, while identifying zoonotic serovars.

**Methods:** A cross-sectional survey was conducted in three regions of Uganda. Pigs at slaughter were sampled, and their carcasses tracked to retail for sampling. Samples from slaughter and retail environments were also collected. A total of 122 stool samples from slaughterhouse workers and 1535 samples from the pork value chain were cultured for isolation of *NTS,* and subsequently serotyped according to the White–Kauffmann–Le Minor scheme.

**Results:** Overall *NTS* prevalence was 21.4% (354/1657), with 6.6% (8/122) in slaughterhouse workers, 23.9% (209/874) at the point of pig slaughter, and 20.7% (137/661; 95%) at pork retail. *NTS* persisted from pig slaughter to pork retail. We found overlapping *NTS* serovars in humans and the value chain. Specifically, we identified seven *NTS* serovars in slaughterhouse workers; *S*. Zanzibar, *S*. Stanleyville, *S*. Ituri, *S*. Moroto, *S*. Adelaide, *S*. Kenya and *S*. Offa. In the pork value chain, we identified fifty-nine serovars including important zoonotic serovars like *S*. Zanzibar, *S*. Typhimurium, *S*. Enteritidis, *S*. Newport and *S*. Stanleyville.

**Conclusion:** Pigs are an important source of introduction of *NTS* into the value chain. Persistence presence of *NTS* from slaughter to retail is an indication of cross-contamination, increasing the risk of transmission to pork consumers. Zoonotic serovars in the pork value chain highlights the potential role of pigs as reservoirs. Our findings emphasize the need to reduce *Salmonella* presence on pig farms and enhance hygiene at slaughter and retail points.

**Keywords:** non-typhoidal *Salmonella*, slaughterhouse workers, pork value chain, Uganda