

Food safety and Hygiene

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***Staphylococcus aureus* in traditionally processed sour milk sold in open traditional markets in Zambia**

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Food safety in Africa remains a serious challenge and Zambia is not spared, especially not in traditional processing sectors. Milk as a food has been considered to be an ideal food for humans, particularly for children. However, (raw) milk can be a source of many pathogens including *Staphylococcus aureus* (*S.aureus*) and multidrug resistant bacteria like methicillin resistant *S.aureus* (MRSA). The SAD-Zambia project aims to characterize *S.aureus* / MRSA in the Zambian milk value chain and to reduce the risks to consumers and producers in Zambia. One important milk product is mabisi (sour milk), which is often processed by traditional dairy farmers (by spontaneous acidification of raw milk) and sold in open traditional markets. In our project, such markets were visited in three regions of

Zambia (Western Province, Southern Province, and Lusaka Province) to collect sour milk from different sellers. *S.aureus* was detected in 7 out of 40 analysed sour milk samples and confirmed by MALDI-TOF. The further characterization of the isolates by molecular biological methods, including identification of MRSA, will be presented. Preliminary results indicate contamination of sour milk in Western and Lusaka Provinces with *S.aureus*. In contrast, no *S.aureus* could be isolated from sour milk samples obtained in the Southern Province. Therefore, the hygiene practices in mabisi preparation applied in different regions of Zambia will be presented.

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