# Food safety in livestock products in informal markets

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This presentation has a somewhat different focus than the previous ones in this conference, as it looks at not only meat production but also milk production from the pastoralists' herds, and it looks primarily at local informal markets rather than at export markets. It is based on studies carried out by the International Livestock Research Institute (ILRI), which confirmed my own research when working with Fulani dairywomen in central Nigeria. These women and their daughters sold their nutritious milk products such as *fura da nono* (millet dumplings in sour milk), butter and soft cheese on village and town markets, at bus and taxi stops, door-to-door in the towns, and to their crop-farming neighbours, i.e. they were engaged in informal marketing.

In sub-Saharan Africa, most animal-source foods – meat, milk, eggs and fish – that are consumed by poor people are bought in informal markets supplied by such small-scale producers.

A study by the "Safe Food, Fair Food" project of ILRI looked at the value and food safety of animal products for:

- the livelihoods of poor producers, small-scale processors and traders
- the nutrition and health of poor consumers in rural and urban areas.

They assessed potential hazards and identified control points critical to food safety along the food pathway from animals to humans. They used an approach called "participatory risk assessment", working with producers, processors, traders and consumers in collecting and analysing data and identifying risks along the food pathway. They combined this with quantitative methods to measure the level of bacterial load, to pinpoint the sources of hazards and to assess risk levels.

Note that they distinguished between hazards (agents likely to cause harm to humans or the environment) and risk (likelihood that harm will occur). Hazards do not always translate into risks. ILRI's work suggests that approaches to achieving food safety that focus on controlling zoonotic hazards in animal products may be less effective, more expensive and less equitable than approaches that focus on actual risk to human health.

The research showed that men and especially women in informal markets are providing animal products that are nutritious, popular, inexpensive and safer than commonly assumed. The risk of zoonotic disease was often reduced by traditional methods of food handling and preparation, e.g. fermentation of milk reduces risk of staphylococcal poisoning by 90%. Risks in meat and fish are reduced by drying, curing or smoking and by selling meat on the slaughtering day.

Informal markets generally involve short value chains: less food handling means less likelihood of food contamination. The longer the value chain, the greater the hazards for food safety. In supermarkets at the end of long value chains – especially where refrigeration functioned poorly – the risk of food-borne disease was sometimes higher than in the same type of products on informal markets.

Participatory risk assessment helped explain how and why risks to food safety were increased or reduced along the value chain. It allowed better understanding not only by researchers but also by producers, processors, traders and consumers of the risks involved and how these could be managed. Appropriate risk-management measures are often relatively simple, e.g. boiling of milk.

Besides being a social learning tool, participatory risk assessment proved faster, easier and cheaper than conventional risk analysis and allowed scarce resources to be directed to inspection at those points in the value chain where risks are highest and can be mitigated.

Policymakers often promote "modernisation" of production and marketing of animal-source foods. The argument that these foods transmit diseases from animals to humans is used to introduce controls that constrain or prevent small-scale producers from accessing formal markets. The existing food-safety regulations are often ineffective and drive the poor into illegality, where they are less likely to be motivated to improve their processing and marketing activities. Making such activities illegal reduces the chances of authorities to have a positive influence on the activities. Informing traders and encouraging them to invest in good food-handling practices led to higher levels of food safety than did fines or bans. Participatory research catalysed initiatives by informal market actors to improve food safety and stimulated their interest to receive advice about this.

The research has drawn attention to the vital role of informal markets for poor people in Africa and revealed misconceptions about such markets. It has contributed to better understanding of ethical and equity issues involved in food-safety regulation: enforcing strict, top-down regulations can cause more harm than good, as they hinder poor producers and traders from earning a decent living, hinder poor consumers from accessing nutritious animal-based foods at affordable prices, and hinder efforts to motivate improved food handling to reduce risks of food-borne diseases. The findings challenge development practitioners and policymakers to rethink their approaches to food safety so they don't "throw out the baby with the bathwater".

***Reference***

**Kristina Roesel & Delia Grace (eds). 2015. *Food safety and informal markets: animal products in sub-Saharan Africa.* Earthscan from Routledge, London, co-published with International Livestock Research Institute. 260pp-**