



One Health: Connecting Humans, Animals and the Environment Video Transcript

Wet markets versus supermarkets

[Bassirou Bonfoh]: The One Health approach applies in an important way to the domain of animal-sourced food. We are going to show you which elements help to make food safe and fair in Africa. The informal market accounts for 39% of the national gross domestic product of Africa. More than 80% of food is sold in informal markets. The informal markets play a major role in food security and food safety. Up to one in three people contract an illness from the food-borne pathogens each year, and chronic sicknesses are observed in 2% to 3%, including organ dysfunction and death. 2/3 of human pathogens are zoonotic. Many of these are transmitted via animal-sourced food. The informal markets escape effective health and safety regulations.

They are often untaxed and unlicensed. Traditional processing of product and low prices predominate. Other attributes are local, freshness, taste, price, and trust. Informal markets are not necessarily dangerous, nor are formal markets safe. Improper post-processing handling is one of the biggest challenges and largely depends on prerequisites, like technology, water, and energy. Exclusively business-oriented attitudes are one of the major risks to food safety in informal markets. Some risks in both informal and formal markets are underestimated, as they do not cause immediate harm. Hazards are biological, chemical, or physical agents that can cause harm or damage to humans. The presence of microbes alone is not necessarily dangerous.

The danger lies in the number and the vulnerability of the person, her being young, old, pregnant, or immunocompromised. Hazards are common but do not always translate into risk. Risk is the likelihood that anticipated harm can occur, including the consequences for public health, ecology, and the economy. Historically, hazards associated with livestock and animal-sourced food were managed through command and control, involving inspection but with litigation in the event of harm. This approach was increasingly unable to deliver food safety. Thus, it was changed. Whereas formally, external inspection had enforced the producers' compliance, now organisations were empowered to self-manage their risk. The first risk-based approach was hazard analysis and critical control points.

Risk analysis is rather quantitative and reductionist and does not take into account the concern of people and their perception. Because of the cost and complexity, risk-based approaches have not been widely applied in the informal market. Participatory methods and techniques have become central tools, as they are more effective, sustainable, less costly, and more ethical in the inclusion of the vulnerable. The methods include stakeholder analysis, outcome mapping, power mapping with different groups to better incorporate viewpoints. Understanding values and culture is crucial to managing food safety. Eating food is not only for nourishment but also associated with cultural values.

It can be difficult to change traditional practises that represent high risk, and some groups are more exposed to risk than others, for instance, women. Financial-oriented incentives lead to the adoption of risk-mitigation options. Cultural backgrounds must be considered as well in risk management and communication. A study in the peri-urban dairy production of Bamako in West Africa revealed 30% of milk harbour brucellosis antibodies. 75% of milk come from cows with other inflammation. 25% of milk are mixed with water. Milk is contaminated with an average of 10 to power 7 bacteria per millilitre of milk. 6.4% of milk contain antibiotics. In East Africa, zoonotic hazards were present in 1% of household milk samples, but infections in people were less common.



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The practise of boiling the milk reduced the risk of disease. Using participatory approaches, market incentives were developed. These not only generated huge added value but led producers to form organisation around high-quality product for the consumers. Animal-sourced food like meat, milk, and milk products represent a very important component of the animal-human interface that is addressed by One Health.