



Food safety in informal markets in developing countries: An overview

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Why animal-source foods matter

In poor countries, livestock and fish feed billions. In East Africa, for example, livestock provide poor people with one tenth of their energy and one quarter of their protein needs. Fish account for more than half of the animal protein intake for the 400 million poorest people in Africa and South Asia. Meat, milk, eggs and fish are important sources of the micronutrients and high quality proteins essential for growth and health.

Studies in Egypt, Kenya and Mexico have shown strong associations between eating animal-source food and child growth and cognitive function as well as better pregnancy outcomes for women and reduced illness for all. Production and marketing of livestock and fish also earns money for farmers, traders and sellers, many of them women. In East Africa, almost half of rural incomes rely to some extent on livestock and fish. India has the largest dairy sector in the world, employing more than 100 million farmers.

On the other hand, excessive amounts of some animal-source foods have been linked to heart disease and other health problems. Currently, two out of three people who are overweight or obese live in developing countries. Increasingly, research on animal source food will have to address not only how to get more meat, milk, fish and eggs to poor people, but also to get less of it to those who are eating too much, or the wrong types. Moreover, animal-source foods are important sources of biological and chemical hazards that cause sickness and death.

A central pillar of our work is that food should not only be 'safe' (that is, free from hazards and improving rather than worsening diets) but also 'fair' (that is, give the maximum opportunities to the poor involved in food production and sale and also improve, or not worsen, the position of women who now have an important role in food production and sale).

Why informal markets matter

In developing countries, incomes are low, governments weak and enforcement of regulation poor. As a result, the informal sector is large, accounting for 39% of local gross domestic product. Previously undervalued, the informal sector is now recognized as an important provider of employment and engine of economic growth. More than 80% of the meat, milk, eggs and fish produced in developing countries is sold in traditional, domestic markets, lacking modern infrastructure and escaping effective food safety regulation and inspection.

By 'informal markets' we mean:

- Markets where many actors are not licensed and do not pay tax (for example, street foods, backyard poultry and pastoralist systems)
- Markets where traditional processing, products and retail prices predominate (for example, wet markets, milk hawking systems and artisanal cheese production)
- Markets which escape effective health and safety regulation (most domestic food markets in developing countries).

Informal markets – a history of neglect and unbalanced interest

Much attention has been paid to the role of informal markets in maintaining and transmitting diseases but little to their role in supporting livelihoods and nutrition. Undoubtedly, hazards exist in informal milk and meat markets, including pathogens such as diarrhoea-causing *Escherichia coli*, *Salmonella* and tapeworm cysts. Severe acute respiratory syndrome came from, and avian influenza is maintained in, the wet markets of Southeast Asia.

Concerns over informally marketed food has been heightened by the landmark Global Burden of Disease studies which found that diarrhoea is among the most common causes of sickness and death in poor countries. Most of this is caused by contaminated food and water, and as much as half is linked to animal pathogens or animal-source foods.

Food-borne illness and animal disease are of growing concern to consumers and policymakers alike. Consumers respond to scares by stopping or reducing purchases, with knock-on effects on smallholder production and informal market sellers. Policymakers often respond to health risk by favouring industrialization and reducing smallholder access to markets.

These changes are often based on fear not facts. Without evidence of the risk to human health posed by informally marketed foods or the best way to manage risks while retaining benefits, the food eaten in poor countries is neither safe nor fair.

Research on food safety in informal markets

For over a decade, the International Livestock Research Institute (ILRI) and partners have been conducting research on food safety in informal markets to support intensifying livestock production by building capacity for better management of safety of animal-source food products.

The ultimate goal is to maximize market access for the poor dependent on livestock and livestock products while minimizing the food-borne disease burden for poor consumers. A pillar of the research is building capacity for

food safety in sub-Saharan Africa by adapting the risk-based approaches successfully used for food safety in developed countries and international trade to the domestic informal markets where most livestock products are sold: a methodology we call 'participatory risk assessment'.

Food safety research projects by ILRI and partners

- Capacity and action for aflatoxin reduction in eastern Africa
- Generating evidence to support enhanced traditional dairying in India
- Safe Food, Fair Food
- Measuring and mitigating the risk of mycotoxins in maize and dairy products for poor consumers in Kenya
- Reducing disease risks and improving food safety in smallholder pig value chains in Vietnam

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Better lives through livestock

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