



FOOD SAFETY IN TRADITIONAL MARKETS: CHALLENGES AND OPPORTUNITIES

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WHY FOOD SAFETY? AND WHY IN TRADITIONAL MARKETS?



FOODBORNE DISEASE

- **Diverse causes**, can enter the food supply at various stages, and can both cause acute illness and raise risk of chronic disease (e.g., aflatoxin, arsenic)
- Estimated **600 million cases** and **420,000 premature deaths** annually (2010 est.)
- Burden comparable to HIV/AIDS, malaria or tuberculosis
- Economic costs estimated at about **\$20 billion USD** per year (not including productivity losses)
- Burden **disproportionately borne** by LMICs, young children
- Particularly affects **nutritious foods**

But foodborne illness is largely preventable through known actions.



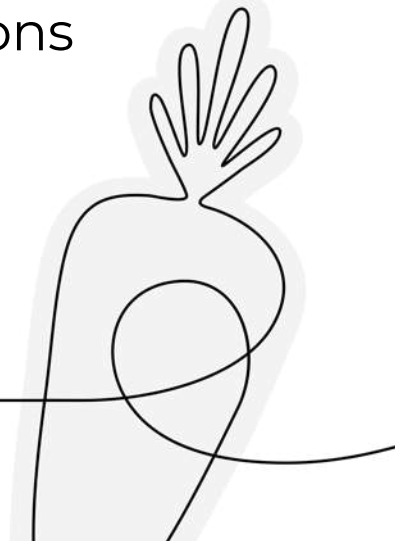
- **Traditional markets are a key intervention point for food safety:**

- Main source of food for majority of urban shoppers in LMICs
- Last point in supply chain pre-consumer: best practices up-chain can be undone here
- Often lack the infrastructure (refrigeration, electricity, water) of 'modern' retail

METHODOLOGY

Studies in two cities in northern Nigeria (Birnin Kebbi; Sokoto) + one in central Ethiopia (Hawassa), aiming to inform an intervention

- 2 systematic reviews
- In-depth qualitative ethnographic studies among consumers and vendors (n=73 E, 83 N)
- Cross-sectional surveys (n=300 E, 850 N) among vendors and consumers
- Market observations
- 2y of implementation of 6 interventions





CHALLENGES

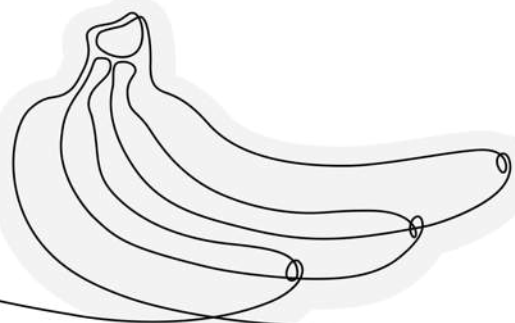
CONSUMER PERSPECTIVES

Food safety is not a main worry for most consumers

- Some knowledge and understanding
- Underestimation of risks (e.g., few reported getting sick or knowing anyone who had)
 - Less than one third reported personal foodborne illness experience
 - Not linking risk to food
- Known versus unknown – chemical hazards
- Fatalism: lack of ability to control exposure
- Information v. motivation



- Price as an overriding factor
 - Exacerbated by high food inflation
 - Limited willingness to pay
 - Most consumers report that they *do* trade off quality and price: would buy a lower-quality food if it had a lower price
- Inability to discuss food safety with vendors: don't believe will tell truth, seen as accusatory (E)
- Reliance on trusted repeated vendors (but not always)
- Heuristics: Consumers believe they can detect many problems by visual inspection (e.g., 98% E) (False sense of control)



Food safety is a credence good





VENDOR PERSPECTIVES

Limited capacity and skills

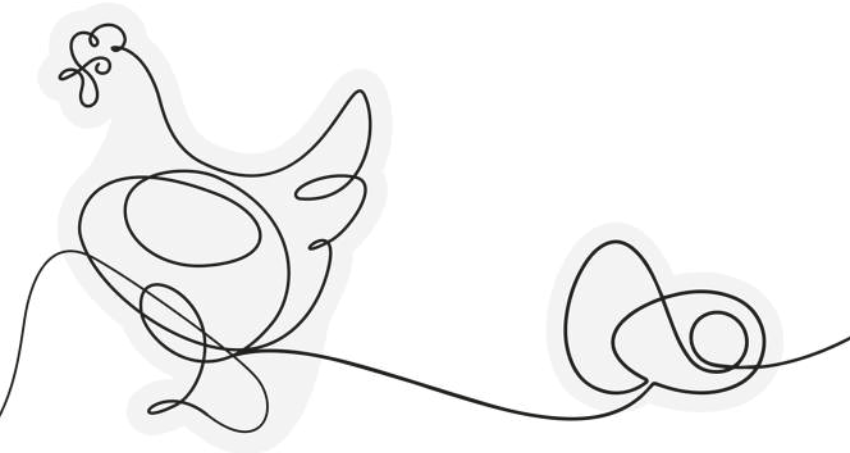
- Low education, low income
- Basic knowledge on food safety, but few trained
- Few observe basic food safety practices (washing hands, covering food/self, not handling with hands)
- Difficult to improve under market constraints (Ethiopia: no water, electricity, paving, or drainage; Nigeria better but still no running water)
- 'Best practices' beyond reach
 - And some come with a cost
 - ...But consumers fixate on price: Most consumers only ask price, nothing more





Limited incentives

- Lack of regulation / enforcement attention on traditional markets
- Largely informal or semi-formal; no certifications
- Testing largely unaffordable / infeasible
- **Lack of signalling mechanisms**
- Asymmetric or missing information





There is a need to create consumer demand for safer food:

Vendors (and supply chains) have limited incentive to supply it without, and most regulatory, testing, and enforcement systems will take many years to become sufficiently functional.



OPPORTUNITIES

CONSUMERS

Focus as much (or more) on motivation as education.

Share appropriate, identifiable heuristics (correlated with risk).



VENDORS

Leverage the reputational aspects of repeat interactions between consumers and vendors: loyal customers are central to vendors' livelihoods.

Focus on personal interests and social norms: Vendors also consumers, and informal social norms operate among vendors





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Thank you