

How effective are laws and regulations in improving food safety and quality?

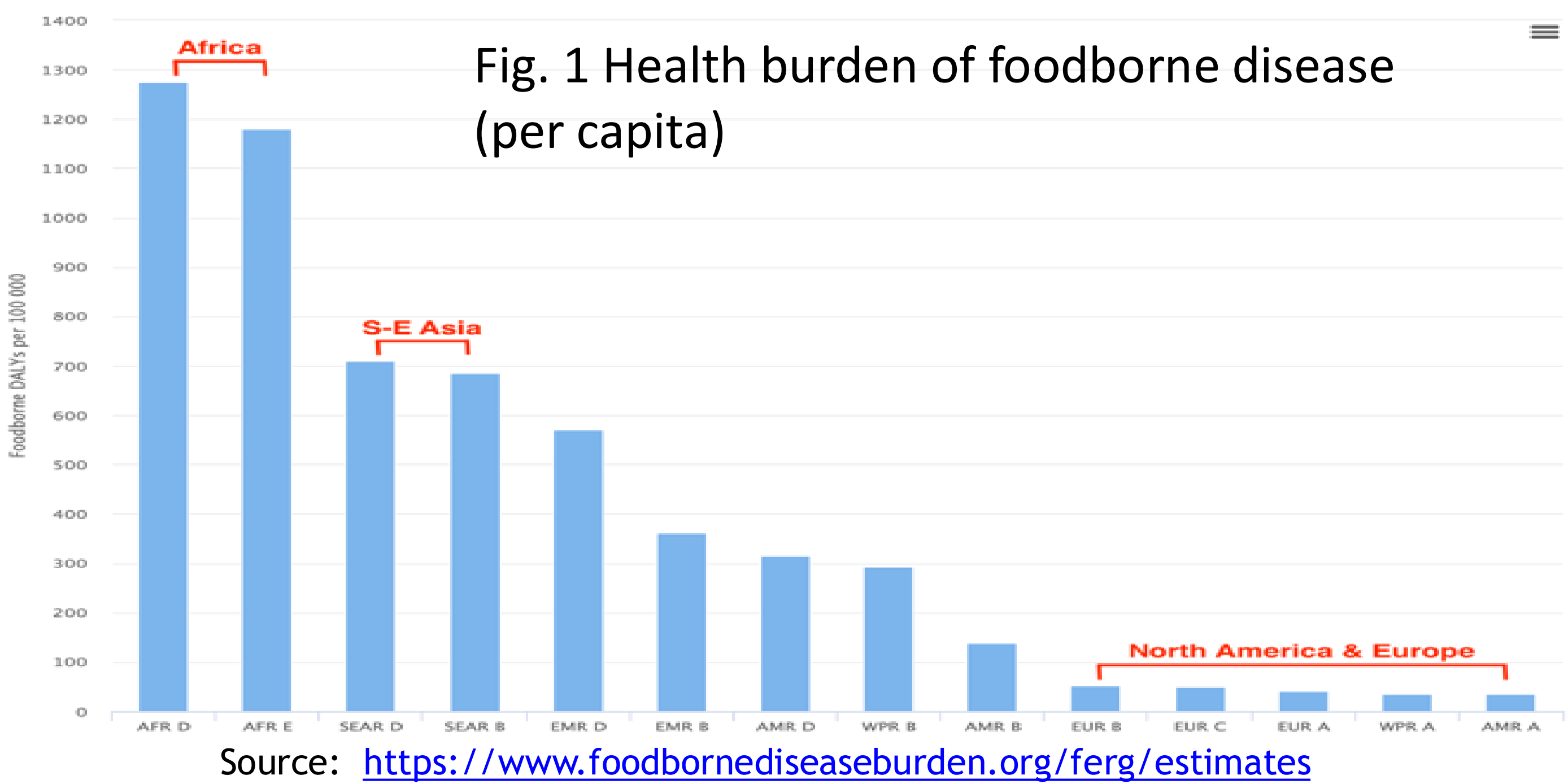
The case of Côte d’Ivoire and Kenya

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Background

- **Food safety is essential for nutrition**, as unsafe food perpetuates a vicious cycle with malnutrition.
- **Africa is disproportionately affected** by foodborne illness (Fig 1).
- **Fresh fruits, vegetables, and animal source foods** are nutritious but also prone to contamination with **microbiological and chemical hazards**.



A multidisciplinary approach

The study evaluates the effectiveness of food safety laws and regulations in Africa, focusing on **fresh produce and processed fish consumed in Côte d’Ivoire and milk in Kenya**. It included:

- **Assessment of microbiological and chemical contamination** through laboratory analyses (540 samples in Côte d’Ivoire) and systematic literature review (milk in Kenya)
- **Review of regulatory frameworks** and stakeholder mapping
- **Qualitative interviews and focus group discussions**



Results

- All targeted foods had **unsatisfactory safety**, suggesting ineffectiveness of laws and regulations to fully protect consumers from unsafe foods.
- However, **health risks** were low in Côte d’Ivoire **given the number of most contaminated foods and the probabilities to consume them**.
- Studies in Kenya focus on indicators or hazards rather than risks to human health and show no improvement in compliance since year 2000.
- Contaminations mostly arose from informal poor production, storage, and distribution practices.
- Informal sector raw milk, even with hazards, is not necessarily unsafe as it is usually boiled. **Formal sector milk is not always safe**, as it is often contaminated and drunk without boiling.
- Food safety laws and regulations for animal foods are **comprehensive and updated** in both countries, and expected to be set for fresh fruits and **vegetable** in Côte d’Ivoire, **but lack enforcement**.
- They are **geared towards the formal sector**, with little regard to the **cost of compliance**, while the **fresh food sector is largely informal in Africa and critical for food security of low-income populations**. There is disconnect between the formal sector (with high influence and interest, government support, and controls, including quality systems), and the informal sector (low influence and capacity to comply, no reward for quality and few benefits from compliance).

Fresh fruits and vegetables and fish in Côte d’Ivoire		Milk in Kenya	
Almost all samples contaminated by microbial agents (e.g., E. coli, Staphylococcus aureus) with loads above national or international standards	Chemical contamination (arsenic, pesticides, and polycyclic aromatic hydrocarbons) above maximum limits for smoked sardine and okra	Frequently contaminated with biological hazards (e.g., Salmonella and toxigenic E. coli)	Frequently contaminated with chemical hazards (e.g., aflatoxins and antimicrobial residues)
		Only 69% samples meeting safety standards	

Conclusions & Policy Recommendations

- **Ever increasing laws and regulations are not effective** to ensure food safety.
- **A new approach is needed**, focusing on the informal sector and the domestic market. This requires **inclusive and gradual** design processes of laws and regulations, that account for the informal sector’s capacities with **realistic and risk-based** standards.
- **Other policy instruments**, such as training, awareness raising, but also **incentives and investment in infrastructures** to improve the food environment, are critical.
- **Nutrition and food safety should be better integrated** for public health.

For more information about the study:

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Conflicts of interest’s disclosure: None.