highlights
JULY 2013

FOOD safety at FAO

Evidence-informed food safety decision-making considering multiple criteria

Evidence to support multi-criteria food safety decision making can come from numerous sources including official sources (eg. foodborne disease surveillance , trade statistics), industry data, published literature and international data sources.

ISSUE/BACKGROUND

Food safety risk managers should base their decisions on clear *evidence* and assessment of the potential for foodborne hazards to cause harm. Decisions facing food safety risk managers are varied, and at times complex, e.g. setting food safety priorities, resource allocations, policy recommendations and selecting the most appropriate intervention to minimize food safety risks. In determining appropriate action, decision-makers often need to consider the consequences relating to more than one risk factor eg. impact on public health, trade, food access and security.

Making sound strategic decisions is the primary responsibility of food safety risk managers. However to be effective in building strong food safety systems and programmes, they also need to influence higher level decisions and ultimately the priority given to food safety in their country. Basing decisions on the best available data and evidence strengthens their influence.

CHALLENGES

While, the approaches used by national governments for considering food safety risks vary, the best approaches require input from a range of stakeholders and an acceptance of the value of considering multiple criteria when making food safety decisions. This requires a change in individual mind-set and institutional culture to move away from the often common silo approach of different Ministries making food safety decisions within their mandate – health, trade etc.

Considering a range of criteria requires evidence and data to be available. A significant challenge can exist in countries where data is not readily or easily available, or systems to collect and manage data are weak. It is also becoming clear that learning from experience, and expert opinion can form an important part of evidence, including when quantitative data is lacking. Varying degrees of knowledge and acceptance of these approaches exist.

An additional challenge is the intrinsic difficulty of comparing diverse issues and factors in a balanced way which allows objective, transparent and reproducible food safety decisions. Analyzing evidence related to health risks is well defined using the risk analysis framework, while processes to consider evidence for additional aspects of risk are not so structured eg. impact on food security and livelihoods, potential loss of income from

food trade. While, it is important to be systematic in the collection and analysis of data, there is a need for flexibility to adapt to the national context.

THE APPROACH

FAO's Food Safety Unit is working with member countries and international food safety experts to test the feasibility and utility of multi-criteria decision making in developing countries. The objective is to provide guidance for countries to ensure the best available "evidence" is used to inform food safety decisions[1]. This guidance should be appropriate to countries which may be data poor or have less mature food control systems, and will strongly promote highly participative approaches to foster "ownership" of the process and results. The availability of agreed decision making tools would facilitate an inclusive and transparent process for food safety decisions based on a broad set of factors rather than a single consideration.

Deciding on relevant criteria in Uganda

Piloting multi-criteria decision making in Uganda

FAO, working closely with the National Drug Authority, Ministry of Health, is supporting a broad group of stakeholders (government, academia, industry and consumer groups) to apply a multi-criteria decision making approach to food safety decision making. A number of important food safety issues were analysed by considering available evidence on public health, markets (export and domestic), food security and social factors.

- Acute diarrhoea in children under five, was highlighted as a significant food safety issue with an estimated 50-60% foodborne. Public health impacts include severe dehydration resulting in hospitalization and even death, and reduced nutrient uptake leading to stunting. Other impacts include reduced household food security, where the primary carer for the sick child is no longer able to engage in food production and income generation activities.
- Production and sale of waragi (alcoholic beverage) is an important source of income particularly for women. However, poor facilities and maintenance of stills is not uncommon, resulting in inadequate distillation and cases of acute methanol poisoning (blindness and death may result). Determining appropriate action needs to consider the potential loss of income and livelihoods for producers, but also the negative impact on consumers of contamination waragi and associated economic costs to their families.

An important source of data was the Uganda national burden of disease due to food safety hazards [Uganda is a pilot country for the WHO Foodborne Disease Burden Epidemiology Reference Group (FERG)], and additional information on the food production and consumption, trade patterns and socio-economic and cultural issues surrounding food in Uganda (ref. the Situation Analysis study).

Work is continuing in Uganda which includes consideration of how policy can be influenced by the outcomes of this work.

[1] This work is supported by the EC/FAO project Global Governance for Hunger Reduction, GCP/INT/130/EC

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