



A PROJECT OF THE CENTER FOR SCIENCE IN THE PUBLIC INTEREST
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Guidelines for Consumer Organizations to Promote National Food Safety Systems

The *Safe Food International Guidelines* cover eight essential elements for an effective food safety program: **Food Laws and Regulations; Foodborne Disease Surveillance and Investigation Systems; Food Control Management; Inspection Services; Recall and Tracking Systems; Food Monitoring Laboratories; Information, Education, Communication, and Training; Funding and Affordability of the National Food Safety Program.**

1. Food Laws and Regulations

Each country must have effective, comprehensive food legislation to give its government the authority to ensure a safe food supply. Some countries have not developed specific laws to assure food safety – or they have developed such laws only recently. In other countries, food safety laws were drafted decades ago. Frequently, they do not address emerging hazards, like harmful bacteria, viruses, mycotoxins, pesticides, and prions, or new innovations, such as genetically modified plants and irradiation. Consumer organizations should be vigilant in identifying ways in which their national laws should be implemented, strengthened and modernized.

A modern national food law contains several essential elements. First, it should provide a framework for an integrated and coordinated food safety system. It should give food safety authorities effective tools to respond promptly to hazards in the food supply, especially during emergencies, and to remove hazardous food from the market in a timely fashion. Finally, it should promote the use of preventative food safety systems.

Food safety legislation should:

- Be developed with the participation of all stakeholders, and in particular consumer organizations.
- Articulate a high level of health protection, for example, food should be “safe for human consumption.”
- Contain clear definitions to increase consistency and legal security.
- Be based on scientific advice that is high quality, transparent, independent, and at a minimum, in line with standards, guidelines and other recommendations of the Codex Alimentarius Commission.

- Ensure the food authority and food producers and processors give consumers accurate information about food products, including labeling on all matters relevant to their health and safety.*
- Include mechanisms to facilitate traceback and recall of contaminated food.
- Put primary responsibility for producing safe food on producers and processors.
- Be regularly monitored and evaluated to ensure all stakeholders' requirements are being met.
- Apply to food aid, including during times of food security emergencies.

National legislation should require establishment of standards or other relevant management options for disease-causing organisms; naturally occurring contaminants such as aflatoxin; pesticide residues; and environmental contaminants, such as lead and methylmercury. It should enable monitoring and enforcement of these standards effectively and efficiently. The aim of such management options should generally be a continuous improvement of the national food safety situation.

Legislation should also establish requirements for labeling relevant to food safety and risk management addressing issues such as: ingredients in descending order by weight; presence of allergens; date marking; and instructions for safe use and storage. The labeling of food produced by genetically modified organisms is currently being discussed by the Codex Committee on Food Labeling.

All substances intentionally added to food and all new food technologies that may change the safety or nutritional qualities of food should be shown to be safe and suitable for their intended purposes. Food legislation should establish pre-market approval procedures for food additives, artificial food components and ingredients, foods derived from modern biotechnology, food processing technologies such as irradiation, and residues of food animal drugs and pesticides to ensure safety and nutritional adequacy of the food supply for consumers. These procedures should establish the safe conditions of use through labeling instructions and maximum residue limits or maximum levels.

Food legislation should require that feed for food-producing animals, including feed additives, and drugs for food-producing animals are safe for both humans and animals, including possible antimicrobial resistance. Feed for ruminants (cows, sheep, goats and others) grown for food should not contain ruminant tissues or by-products.

* Governments should follow appropriate Codex guidelines for the use of Halal claims in food labeling.

2. Foodborne Disease Surveillance and Investigation Systems

A foodborne-disease surveillance system tracks information on illnesses, gathers information to identify outbreaks (two or more illnesses linked to a single hazard), links outbreaks to food sources, and traces the food identified in the outbreak back to its origins.

The first evidence of contamination of food will likely be found through the surveillance system. An effective surveillance system is one that identifies foodborne-illness outbreaks while there is still time to remove the contaminated food from the market and prevent illnesses. This is especially true for incidents involving food that has been intentionally contaminated.

Many countries have surveillance systems that rely on investigations of illnesses that are reported to medical officials. In some countries, sophisticated surveillance systems are designed to deliver a high degree of certainty before specific foods are linked to an outbreak. Such food attribution information is important to both risk managers and the public. However, some countries use systems that were developed to address food industry concerns that the wrong food might be blamed for causing a food-borne illness outbreak. Those systems can be too slow to operate effectively in an emergency.

To help risk managers issue more timely food recalls and to address the threat of intentional contamination, countries should review their surveillance systems with respect to their capacity to recognize emergencies rapidly.

1. A national food control system should establish links between the symptomatic foodborne-illness surveillance system and the food-monitoring system (see section 6 below).
2. Countries should establish or strengthen early warning systems to allow rapid detection of contamination incidents to ensure prompt public alerts.
3. Countries should ensure that their surveillance systems include data on the symptoms and effects of chronic exposure to foodborne contamination.
4. Identifying diseases in animals may provide a quicker indication of a problem in the food supply than waiting for human diseases to occur. Linking the veterinary health sector to the surveillance network might provide earlier warning of a problem in the food supply.

The public should have the right to information emerging from the surveillance systems, including all data to support:

- Annual foodborne disease incidence trends.
- Identification of susceptible population groups.
- Identification of hazardous foods.

- Results of routine sampling and analysis of food products.
- Identification and tracing of causes of foodborne disease from the farm to the kitchen.
- Early alerts for outbreaks and food contamination.

3. Food Control Management

Many countries currently have more than one food safety agency, some with conflicting or overlapping responsibilities. An integrated national food control authority should address the entire food chain from farm-to-table and should have the mandate to move resources to high-priority areas.

The national legislation should define the food-control management structure. Core responsibilities of that system include establishing regulatory measures, monitoring system performance, facilitating continuous improvement, and providing overall guidance.

National legislation should define an integrated or coherent food safety system including designation of a lead food safety authority that should be empowered to:

- Develop and implement an integrated national food-control strategy.
- Set standards and regulations.
- Approve new food ingredients and food safety technologies.
- Participate in international food-control activities.
- Develop emergency response activities.
- Carry out risk analysis.
- Monitor enforcement activity and performance.
- Implement effective mechanisms for involving stakeholders, including consumer organizations, at different steps of the decision-making process.
- Develop and promote food safety training curricula and programs.

Sufficient resources should be provided to the authority to carry out its mandate.

Risk analysis plays an important role for a national food control system. Risk analysis comprises of three stages: risk assessment, risk management and risk communication. Risk analysis involves identifying risks, weighing their likelihood and their impact, and establishing systems to manage and minimize risks. Risk management is the term given to the legal, regulatory, educational, and voluntary actions used to control risks. Risk assessment is a scientifically based process consisting of the following steps: Hazard identification, hazard characterization, exposure assessment, and risk characterization. Risk assessment should always be carried out openly and transparently and ideally by independent scientific committees which are open to public scrutiny. While formal risk assessments can be highly beneficial, they can also be very time-consuming and expensive, beyond the reach of many governments. It is also essential that risk assessments answer the right questions and are explicit about any judgments or assumptions that have been made.

Where the science is uncertain or inconclusive, but there is evidence of a potential risk, it is important that a precautionary approach is adopted by risk managers. Failure to take action sufficiently early to protect the public can have devastating consequences.

Risk assessment is therefore an important aspect of risk management decisions, but not the only one. Other factors may also need to be taken into account by risk managers when determining the approach that has to be taken. Public involvement throughout the risk analysis process is essential in order to understand what these broader factors may be (including for example ethical, environmental or broader social aspects) which can affect people's willingness to accept a particular risk. It is essential that consumers are involved in determining an acceptable level of risk.

Risk communication is essential and has to be a two-way process between risk managers, risk assessors, consumers and their representatives, and other stakeholders.

Risk-management decisions should be based on the best available evidence and proceed within a time frame that can minimize consumer harm. Risk managers can be informed by risk assessments conducted either in their own country or assessments done for international organizations, like the WHO. In order to respond to food safety emergencies, the government should establish a national food safety emergency coordination body. An effective emergency response system must be tailored to the circumstances and should include links to law enforcement and intelligence agencies, food-recall systems, risk assessment specialists, and the food industry, as well as the more traditional sectors of health care providers, laboratories, and emergency services. These systems should be tested to ensure that the communication and response systems work effectively.

4. Inspection Services

Sound food safety legislation and policies are meaningless unless they are effectively enforced. Inspection services form the core of the food safety system, giving government regulators, customers, and consumers regular information regarding conditions throughout the food chain and on farms that can impact the safety of the food supply. In addition, inspectors give the government in-house expertise that can be used to conduct investigations and respond to food safety emergencies.

Food premises should be inspected as a matter of principle before they sell to the public to ensure that they meet hygiene requirements. Food inspection must ensure that all foods are produced, handled, processed, packed, stored, and distributed in compliance with legislation and regulations. Food inspection and regulation should extend from the farm to restaurants, street vendors, and other retail venues. There should be a sufficient number of inspectors to allow an adequate frequency of inspections. These inspections should be based on the risks posed by different foods and the history of problems in a particular sector of the food supply.

The food inspector is a key functionary who has day-to-day contact with the food industry, trade groups, and often the public. The inspector must therefore be honest and well-trained, independent, and be in a position to avoid external influence, including potential conflicts of interests. Training of food inspectors is an important component of an efficient food-control system. As national programs improve with the introduction of systems focused on controlling and preventing food safety problems (so-called Hazard Analysis and Critical Control Point (HACCP) systems) and the adoption of new technologies to improve food safety, retraining should be conducted to ensure that inspectors are providing optimal services.

Traditional inspection functions include responding to non-compliance with food laws, handling consumer complaints, and advising the food sector. In a modern food safety system, inspection functions include the following:

- Inspecting premises and processes.
- Evaluating HACCP plans.
- Sampling food during harvest, processing, storage, transport, or sale.
- Recognizing spoiled and hazardous food, food that is otherwise unfit for human consumption, or food that is deceptively sold to consumers.
- Recognizing, collecting, and transmitting evidence.
- Encouraging the use of voluntary quality assurance systems.
- Conducting inspection, sampling, and certification of food for import/export purposes.
- Conducting risk-based audits of food establishments with HACCP or other safety assurance programs.
- Recommending formal action, including prosecution, where food safety lapses could endanger public health.

Information on food inspection results, such as hygiene scores, should be made available to the public through, for example, web-based systems, media and other communication channels.

5. Recall and Tracking Systems

Recall and tracking systems are vital to consumers and other actors throughout the food chain when food that does not comply with national standards, including contaminated food, inadvertently reaches any part of the food chain, including the consumer. The national food safety system should have comprehensive procedures covering the prompt removal of contaminated and mislabeled food products from the domestic market. Recalled products that are deemed to be unsafe should be properly disposed of and not exported to other countries.

Recalling contaminated food can be triggered by the food industry, consumer organizations, or the food control authorities. Tracking systems are used to trace the route of contaminated food or sick animals that may enter the food supply. Outbreak investigations often use tracking systems to trace back food linked to an outbreak to the farm or factory that produced it.

Tracking or traceback systems may also be required in order to give additional reassurances of safety, for example, to enable post-market monitoring of any unintended health effect. They are also important to ensure liability and compensation.

Tracking systems generally start with the food producers. In the case of live animals, it may include animal identification systems using ear tags and other devices. Processed foods should be clearly marked with a lot number and the time and date of production. Produce, grains and other plant-based foods should be labeled in a manner that clearly indicates the place of origin (country and state or province and preferably the farm or packinghouse). In all cases, packaged food purchased by the consumer should be marked to allow identification.

Recall systems should be a coordinated effort between the national government and the individual firm(s). If the government requests a recall, firms should have an affirmative duty to recover recalled products and to destroy or dispose of them properly. National laws should include penalties for companies that fail to comply with recall requests from national governments.

6. Food Monitoring Laboratories

Laboratories are an essential component of an effective food control system. They allow regulators, producers, and consumers to examine food for chemical and microbiological hazards that are not apparent through routine physical examination. Laboratory analysis can be critical to:

- Identifying contaminated foods.
- Identifying the source of an outbreak of food poisoning.
- Allowing regulators to bring enforcement action against adulterated and unsafe food.
- Confirming the safety of domestic food products as well as exports and imports.
- Allowing for dietary exposure assessments.
- Allowing consumer organizations and food processors to monitor and analyze the food quality at the user end.
- Assist in the regulatory decision making process and evaluate the effectiveness of risk management interventions.

Effective food-control programs are able to monitor the quality and safety of the nation's food supply. It is government's responsibility to ensure that mechanisms are put in place to make sure food is safe before it is marketed. A range of analytical capabilities are required for detecting a large variety of food contaminants, such as pesticides, pathogenic bacteria, pathogenic prions, foodborne viruses, parasites, radionuclides, environmental chemicals, and biotoxins. In addition, capabilities to test for spoilage and compliance with all other official food-control standards are needed.

The food-control management authority should establish quality assurance (proficiency) criteria for the operation of laboratories and should monitor their performance.

7. Information, Education, Communication, and Training

Communication among food safety, agriculture and other relevant authorities, consumers and consumer organizations, and the food industry should be a vital and continuous function of a national food safety program. Communication with the public and the food industry in emergency situations, such as disease outbreaks or contaminated food alerts, is an increasingly important component of the national food safety system. Consumers should always be promptly, accurately and fully informed about any disease outbreak, contaminated food incident, or food recall through a sound alert system and traceability using effective and practical communication methods. Communication must be a two-way process to ensure that authorities are aware of and take account of consumer concerns and perceptions.

Where ever possible, risks should be explained in the context of the overall diet. Where it is not possible to give consumers clear information or advice about a risk, efforts should be made to explain as clearly as possible what is and is not known and what steps are being taken to address uncertainties.

Informing the public and the food industry about trends in food and foodborne diseases is an important role of government authorities. National governments should ensure communication during emergency situations by establishing industry alert and agriculture alert systems. Through the network of food safety regulators (INFOSAN), WHO, and in cooperation with FAO, operates an electronic information system to keep regulators informed of the emerging food safety issues, including emergency situations.

Giving consumers advice regarding how to avoid foodborne illness is an educational function of the national food safety program. Education programs should begin in childhood using both formal and informal methods. Programs should also target high-risk groups and/or their care-givers. High-risk consumers include infants and young children, pregnant women, the elderly, and immuno-compromised individuals.

On-going training in specific skills, such as communication, and technical capacity building for inspectors, laboratory personnel, scientists, consumer organizations, and the food industry is critical to ensure that existing inspection programs are prepared to handle emerging hazards and to integrate new technologies to reduce hazards.

8. Funding and Affordability of the National Food Safety Programs

National food safety programs must be funded sufficiently and transparently to conduct regular inspections of food-processing facilities and imports, to conduct laboratory tests of both domestic and imported food, to set standards and do risk analysis, as well as many other functions. The nature of the funding must not compromise their integrity and independence. Funds must be utilized efficiently to maximize public health protection and with accountability to the public.

Governments have the primary responsibility for ensuring the safety of domestic, imported, and exported food, and should provide core funding for such activities. However, support for building the capacities of such systems in the poorest countries should be the focus of bilateral and multilateral assistance, as appropriate.

Many countries fund food safety programs using cost-recovery systems. Cost-recovery options include a tax and/or specific fees for licensing, inspection activity, food sampling and analysis, and food safety training. However, those systems should not unfairly impact the poorest consumers and public health organizations.

Food safety programs must be structured to protect and promote public health and be affordable and accessible to small farmers and producers. This is important for preserving the diversity and quality of the food supply. Costly regulatory measures can put small farmers and producers out of business. Consolidation of the food industry can make food more vulnerable to large-scale contamination.

APPENDIX

Questions to Evaluate National Food Safety Programs

1. Food Laws and Regulations

Have food laws been updated and modernized in the last 10 years?

Do food laws apply from farm-to-kitchen?

Is there one or more existing food safety agencies with staff having the necessary expertise?

If so, is there one agency with primary responsibility for food safety across the entire food production chain or do several agencies share that responsibility?

Does the agency responsible for food safety have conflicting missions, such as promoting national agriculture?

Do consumers have an active role in the development of food safety laws?

Are food laws responsive to current food safety problems?

Are the food laws sufficiently flexible to give regulators tools to address new technologies or food products, for example, biotechnology, novel additives, or pesticides? If not, what areas need additional coverage?

2. Foodborne Disease Surveillance and Investigation Systems

Do doctors have a mechanism to alert national health officials to unusual cases of illness or disease?

Is there a reporting mechanism for other health workers, pharmacists, or poison-control centers that could alert officials to a potential outbreak in its early phases?

Are doctors and other health-care providers given training materials on how to identify classic foodborne illnesses and unusual agents that might be used in an intentional attack on the food supply?

Does the country monitor water quality, either as part of the national food safety program or as a separate program?

Does the surveillance system adequately cover rural areas and those who may not have access to health care?

Does the food industry have a mechanism to inform government officials of threats against their products or unusual consumer complaints?

Is information about food safety emergencies disseminated quickly to consumers in a manner that allows them to avoid illnesses?

Which agency/agencies form the National Outbreak Alert and Response System?

How sensitive is the surveillance system? Does it only work in the event of large foodborne-illness outbreaks, or can it identify small clusters before they spread?

Is the surveillance system active or passive? Does it give risk managers real-time information, or must they wait for years to identify trends in food-poisoning outbreaks?

Is surveillance coordinated between different regions of the country? Is it coordinated with health agencies in neighboring countries and international organizations?

Does the surveillance system provide adequate privacy protections to consumers?

3. Food Control Management Programs

Does the food control agency have centralized authority?

Can the food-control agency move resources to high priority areas?

Does the food-control agency have the ability to inspect on farms, in processing plants, during the transportation of food items, and at the point-of-sale?

Does the government use risk analysis to set priorities?

Does the government require such lengthy risk assessments before taking action that lives are endangered?

Can the government move quickly to respond to new food safety concerns?

Does the government quickly inform the public about food safety issues and concerns?

Has the government established a National Food Safety Emergency Coordination Body?

4. Inspection Programs

How many inspectors do the national and local governments employ?

Are inspectors paid employees of the government or are they paid by the food industry?

How many facilities are subject to government inspections?

Are there high-risk food facilities (e.g. seafood processors) that are not subject to government inspection?

How often are meat plants inspected?

How often are other perishable food plants inspected, such as seafood processors and dairies?

How often are other types of food plants inspected?

How often is food from a plant collected by the government and sent to a laboratory for sampling?

Do inspectors have the authority to close down plants? What other authority do inspectors have when they find a firm in not in compliance with food safety laws, e.g. civil fines, seizing food?

Do inspectors approve foreign countries that import food and perform regular audits?

If the government relies on privately employed inspectors, how often does the government audit these inspectors to ensure that they are enforcing national food safety laws?

How are inspectors trained?

Are food inspectors employed in one or several government agencies?

Do inspection activities focus on many parts of the food supply, from farms to the retail sector, or do they focus just at one point in the food chain?

Do inspectors enforce programs designed to prevent food safety problems, such as HACCP systems, or do they largely respond to outbreaks and other emergencies?

Do the inspectors see themselves as employees of the food industry or as government or “public” employees?

How are consumer complaints against a company reviewed and handled?

5. Recall and Tracking Systems

Are companies required to publicly release information regarding where recalled food was sold, so consumers can get the information quickly and easily?

Does the national program require companies to recall food products that are found to be unsafe?

Does the national program require food companies to label their processed food products so consumers can identify their origin?

Does the national program require that processors mark their products with their lot or other identification to facilitate traceback and recall?

Do regulations require that processors keep track of their ingredients and suppliers used in food productions?

Are processed foods required to be packed in a manner that would make tampering quite evident, e.g., the use of seals or closed packaging?

6. Food Monitoring Laboratories

How many food safety laboratories does the government fund?

If the government relies on private laboratories, how often does the government audit these laboratories to ensure that they are meeting national standards and enforcing national laws?

Do these laboratories have the analytical ability to detect and identify pesticides, pathogenic bacteria, foodborne viruses, parasites, radionuclides, additives, environmental chemicals, and biotoxins?

What types of tests are currently lacking?

How many food samples are run by the government a day? A month? A year?

Who collects the samples for analysis: inspectors employed by government or private plant employees?

What types of food products are most targeted for testing?

What types of food products are least targeted for testing?

Does the government sample imported food at the same rate as domestic foods, or a higher or lower rate?

Can the government initiate enforcement action on the basis of laboratory test results? (For example, can the government close down a plant if it produces products with high levels of human pathogens?)

Does the government have an emergency plan in the event that a large number of laboratory tests are needed in a short time? (Surge capacity?)

How often do laboratories have to meet accreditation or certification requirements?

Do laboratories work with one or more agencies in the federal government?

Do the food laboratories exchange information with other public health laboratories in order to more quickly identify outbreaks or illness clusters and target testing to find the contaminated food?

Does the government have an inventory of existing laboratories, both public and private?

7. Information, Education, Communication, and Training

How often does the government communicate with the public on food safety matters?

What mechanisms does the government use to communicate broadly with the food industry and with consumers?

Does the government issue timely recall notices? Are these effective in getting food removed from the retail markets?

Is the government trusted by the public when it issues food safety information?

Does the government have an Industry Alert System, for use during an emergency situation?

Does the government have an Agricultural Alert System, for use during an emergency situation?

Does the government provide regular training programs for food inspectors and laboratory personnel?

Does the government regularly hold food safety training sessions for the food industry?

Do training and inspection programs integrate new food safety technologies, where appropriate?

8. Funding and Affordability of the National Food Safety Programs

What is the annual food safety budget for your country?

How many federal agencies share in the food safety budget?

How many provincial, local, or state agencies receive national funding to conduct food safety activities?

Are food inspectors paid by the government or by private industry?

Is the emphasis on regulation to approve food for export? Is domestic food as safe as food being shipped to foreign countries?

Are some foods inspected frequently, while some are rarely checked?

Are foods regulated according to the hazard they pose to consumers, or are foods regulated based on other criteria, such as legislative requirements or export needs?

Do the food regulations promote large producers over small ones?

Is there diversity within the agricultural sector? How do current regulations affect that diversity?