



Advancing Food Safety Initiatives

Strategic Plan for Food Safety
Including Foodborne Zoonoses
2013–2022

Advancing Food Safety Initiatives

**Strategic Plan for Food Safety
Including Foodborne Zoonoses
2013–2022**



**World Health
Organization**

Advancing food safety initiatives: strategic plan for food safety including foodborne zoonoses 2013-2022.

1.Food safety. 2.Food contamination. 3.Foodborne diseases. 4.Health planning. I.World Health Organization.

ISBN 978 92 4 150628 1

(NLM classification: WA 701)

© World Health Organization 2013

All rights reserved. Publications of the World Health Organization are available on the WHO web site (www.who.int) or can be purchased from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857;

e-mail: bookorders@who.int).

Requests for permission to reproduce or translate WHO publications –whether for sale or for non-commercial distribution– should be **addressed to WHO Press through the WHO web site** (www.who.int/about/licensing/copyright_form/en/index.html).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

CONTENTS

6 INTRODUCTION

7 FOOD SAFETY: A PUBLIC HEALTH PRIORITY

11 THE ROLE OF WHO

13 MISSION

14 STRATEGIC DIRECTION 1:

Provide the science base for measures along the entire food-chain to decrease foodborne health risks

16 a) Provide the scientific basis for decision-making in policy development and risk management

17 b) Establish international standards and recommendations and promote their implementation and importance in public health

18 c) Establish new approaches to systematically collect, analyse and interpret data and other information to better guide risk analysis and underpin policy decisions

19 d) Provide a comprehensive framework for determining the burden of foodborne diseases

20 STRATEGIC DIRECTION 2:

Improve international and national cross-sectoral collaboration, enhance communication and advocacy

21 a) Promote cross-sectoral collaboration and information sharing to optimize the response to foodborne health risks, including outbreaks

23 b) Ensure risk communication and health promotion/education in support of foodborne disease prevention

25 STRATEGIC DIRECTION 3:

Provide leadership and assist in the development and strengthening of risk-based, integrated national systems for food safety

28 a) Assist countries in building and strengthening risk-based regulatory and institutional frameworks

28 b) Increase countries' capacity to manage food safety risks in emergency and non-emergency situations

28 c) Assist countries in the development and strengthening of enforcement structures

29 ANNEX 1: Background documents

30 ANNEX 2: Objective tree diagram

INTRODUCTION

The Strategic Plan in this document builds on World Health Assembly resolution WHA63.3 (May 2010) and provides a coherent framework for taking action on priority issues in the area of food safety and foodborne zoonoses for the period 2013–2022.

The Plan was developed with the close collaboration of food safety experts from the three levels (global, regional and country levels) of the Organization, taking into account strategies developed at the regional level and resolutions on food safety that have been adopted by regional committees of WHO. Documents that provided a basis for the Plan are listed in Annex 1. The final draft was reviewed by external experts from regulatory authorities and academia from different WHO regions. WHO is grateful for the constructive comments of the reviewers.

The Plan sets out three global strategic directions and objectives together with more detailed activities needed to reduce the burden of foodborne illness. Its three strategic directions are inter-linked - actions defined under one strategic direction contribute to the achievement of the objectives under another strategic direction. The scope of the Plan covers food safety in all ramifications, encompassing the farm-to-table approach and including foodborne diseases of zoonotic origin. Therefore, all references to “food safety” or “foodborne diseases” comprise aspects or diseases of non-communicable and communicable origin, including foodborne zoonoses.

The implementation of this strategic plan is through biennial work plans that will be developed at the three levels of the Organization by the respective offices (Headquarters, Regional Offices, Country Offices), in alignment with the WHO Twelfth General Programme of Work (2014-2019). This 10-year plan will be reviewed in 2018-2019 to evaluate its implementation and achievements against performance indicators and ensure consistency with the next General Programme of Work. Internal and external reviews will also be performed to verify that the scope and priorities are still pertinent and that work undertaken contributes to achieving the stated overall goal and outcomes.

FOOD SAFETY: A PUBLIC HEALTH PRIORITY

Access to sufficient and safe food is a basic human necessity and essential for creating a world without hunger and for achieving poverty reduction worldwide. While everyone is exposed to foodborne health risks, it is the poor who are most exposed and vulnerable to these risks. Foodborne and waterborne diarrhoeal diseases kill an estimated 2.2 million people annually, most of whom are children. Diarrhoea is the most common foodborne illness caused by pathogens, but other serious consequences include kidney and liver failure, brain and neural disorders, reactive arthritis and death. Chemical food contamination may cause non-communicable diseases, in particular cancer, and can also affect reproductive health and the immune system.



Serious outbreaks of foodborne disease have been documented on every continent in the past decade, illustrating the public health and social significance of these diseases. Foodborne diseases not only adversely affect people's health and well-being, but also have negative economic consequences for individuals, families, communities, businesses and countries. These diseases impose a substantial burden on health-care systems, trade and tourism, markedly reduce economic productivity and threaten livelihood. Yet, the full spectrum of the burden of foodborne diseases has never been quantified on a global basis, since foodborne illnesses are often under-reported. Policy makers at the local, national and international levels need science-based, reliable estimates on the burden of foodborne disease to inform their decisions and mobilise resources.

Traditionally, the term "foodborne disease" has been used for illnesses caused by microorganisms, with often acute reactions, such as diarrhoea. However, in order to address the full scope of causative agents —of a bacterial, viral, prionic, parasitic or chemical nature— and acute, sub-acute as well as chronic diseases, the term foodborne disease is used here in a wide, all-encompassing sense. It includes foodborne zoonoses and other risks associated with food along the entire food chain, as well as new and emerging health issues associated with food.



The past decade has seen new challenges to food safety. More people expect a wider variety of foods than in the past; they want foods that are not in season and often eat away from home. The integration and consolidation of agricultural and food industries, new dietary habits, the globalization of the food trade and human movements are modifying the patterns of food production, distribution and consumption.

The globalization of the food trade offers many benefits to consumers, as it can bring to the market a wider variety of foods that are accessible, affordable and meet consumer demands. A diversity of foods in a balanced diet improves nutritional status and health. The global food trade provides opportunities for food-exporting countries to

earn foreign exchange, indispensable for the economic development and for improving the standard of living of many people.

At the same time, these changes present new challenges to food safety and have widespread repercussions for health, for instance by creating an environment in which both known and new foodborne diseases may occur in greater magnitude. A single source of contamination may become widespread, with global consequences, while longer life expectancy and increasing numbers of immunocompromised people result in a larger vulnerable population.



Other key challenges include increasing awareness of the health impact of antimicrobial resistance in foodborne pathogens; identifying and assessing the risks posed by newly identified pathogenic microorganisms and chemical substances in the food supply; evaluating the impact of new technologies in food production and processing, including genetic engineering and nanotechnology, on consumer safety. Also, changes in animal food production and animal husbandry have an impact on the emergence and spread of diseases of zoonotic origin. Food safety and food control systems need to adapt to today's food production and distribution practices, moving their focus gradually from the end-product testing to the process control throughout the food chain. Education and training of food safety workers need to take these challenges and developments into account.

The provision and safeguarding of a safe and sufficient food supply are important in the broader context of health security. Health security, the protection of people from urgent threats to their health, has been identified by the Member States of the World Health Organization (WHO) as one of the five core areas of work for WHO ("Category 5" under the 12th General Programme of Work). When a major public health event strikes, we all are at risk, regardless of where we live. Ensuring that the food we eat is safe and protected from contamination is an essential element of health security, as is ensuring that people are protected from diseases that pass from animals to humans.

To achieve food safety, strong, functional links must be built between the public health and other sectors —particularly the agricultural and animal health sectors— to ensure effective cross-sectoral collaboration. The public health sector must play a pivotal role in building a community of various stakeholders and partners, who share common goals and responsibilities. This partnership should encompass consumer and school education, science and research, agriculture and fishery, tourism, trade, industry as well as regulatory authorities. Key players need to have timely access to reliable and up-to-date information including emergency alerts so that collective actions can be taken. A food safety problem in one country immediately puts other countries at risk if it is not addressed promptly.



Food safety is a critical component for sustainable development. Safer food contributes to less illness, and hence increased productivity and improved livelihood. Safe food, conforming to international food safety standards, contributes to increased export, hence, increased income. Food safety is critical to human nutrition and food security. Poor nutrition and foodborne diseases often combine to a vicious cycle of worsening health. Therefore, food safety must be systematically integrated into policies and interventions to improve nutrition and food security. As the international community moves towards the post-Millennium Development Goal phase with a focus on sustainable development goals, food safety is an essential element in improving global health and ensuring sustainable development.

THE ROLE OF WHO

WHO has a specific mandate for the protection of public health. WHO Member States have recognized that ensuring the safety of food is an essential public health function.

WHO works to protect the health of consumers through providing:

- public health leadership
- technical assistance and cooperation
- normative frameworks
- science-based policy guidance
- consolidated health-related data.

In addition to the charges related to food safety in the 1948 Constitution of WHO, the World Health Assembly in 1978 requested the Director-General to develop a food safety programme and address the control of foodborne diseases and food hygiene. More recently, WHO was given the mandate from its Member States to take action in these areas through World Health Assembly resolutions in 2000 (WHA53.15) and in 2010 (WHA63.3). This mandate confirmed food safety as a public health priority, committed WHO and its Member States to a range of multisectoral and multidisciplinary actions to promote the safety of food at local, national and international levels and outlined some of the key actions needed to advance food safety.



WHO has been involved in food safety for over five decades, collaborating with other international and intergovernmental organizations and involving all relevant stakeholders and partners throughout the entire food-chain. Many WHO activities in this area are carried out in close collaboration with the Food and Agriculture Organization of the United Nations (FAO) and with the World Organization for Animal Health (OIE).



In order to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide, the International Health Regulations (IHR 2005) entered into force in 2007. The IHR define the rights and obligations of countries to report public health events to WHO and establish a number of procedures that WHO must follow in its work to uphold global public health security. Some food safety events will constitute public health emergencies of international concern, resulting in the need for coordination and collaboration among established networks in the area of food safety and foodborne zoonoses —most notably the International Food Safety Authorities Network (INFOSAN), the Global Early Warning System for Major Animal Diseases, including Zoonoses (GLEWS)— and the network of National IHR Focal Points.

MISSION

To lower the burden of foodborne disease, thereby strengthening the health security and ensuring sustainable development of Member States

To achieve this mission, WHO will promote proactive and efficient national food safety systems and maintain an international framework to support national systems through three strategic directions:

1 Science-based decision-making

Strategic direction: Provide the science base for measures along the entire food-chain to decrease foodborne health risks

Outcome: Increased provision of scientific advice and development and implementation of food safety standards, guidelines and recommendations

Performance Indicator: Number of international food safety standards, guidelines, recommendations and tools provided that enable Member States to implement prioritized actions and interventions to reduce foodborne health risks

2 Cross-sectoral collaboration

Strategic direction: Improve international and national cross-sectoral collaboration, and enhance communication and advocacy

Outcome: Increased participation in cross-sectoral networks for reduction in food-borne health risks, including those arising from the animal–human interface

Performance Indicator: Number of Member States that successfully increased their participation in national and international cross-sectoral networks for reduction in food-borne health risks, including those arising from the animal–human interface

3 Leadership and technical assistance

Strategic direction: Provide leadership and assist in the development and strengthening of risk-based, integrated national systems for food safety

Outcome: Increase in the number of Member States with a risk-based food safety system and enforcement structures in place

Performance Indicator: Number of Member States assisted in the implementation of a risk-based food safety system with enforcement structures in place

STRATEGIC DIRECTION

1

Science-based decision- making

***Provide the science base
for measures along
the entire food-chain
to decrease foodborne health risks***

Strong evidence-based decision-making is the foundation for credible and sustainable legal and policy decisions. The increasing complexity of questions in food safety now requires more innovative approaches to better prioritize, take account of the overall knowledge base and allow for rapid integration of new scientific developments.

In the area of food safety, the core international standard-setting function is carried out through the Codex Alimentarius Commission, the principal organ of the Joint FAO/WHO Food Standards Programme, established in May 1963 in resolution WHA16.42. The elaboration of health-based international standards, based on the scientific advice provided by independent international expert groups, and their adoption by Member States will improve the safety of food in domestic markets and at the global level. This will also facilitate safe trade in food and contribute



economically to development and to improving standards of living in food-exporting countries. Effective participation by all countries in the development of international standards is essential to ensure that they meet the needs of all Member States.

National and international standards and policy decisions need to be based on transparent, objective and state-of-the-science risk assessments. WHO is the global health authority for the provision of independent, international food safety risk assessments. This work is undertaken in collaboration with FAO, through the organization of joint expert meetings. Continuous updates of general risk assessment principles and methods are important to take into account new scientific developments.



Access to reliable and current information on the incidence of foodborne disease and the occurrence of food contamination as well as a better understanding of the health burden of diseases related to foodborne risks—expressed in Disability Adjusted Life Years (DALYs)—are critical to enable policy-makers as well as other food safety stakeholders to appropriately prioritize and allocate resources to foodborne disease prevention and control efforts; to monitor and evaluate the effectiveness of measures taken; and to quantify the burden in monetary terms.

Modern food safety systems, in order to be efficient, rely increasingly on the global availability and use of data and other information on foodborne diseases and exposure to food contaminants—pathogens, natural toxins and other harmful chemicals—as well as data on the performance of controls throughout the food-chain. Therefore, it is essential that effective links are established between food control agencies and the public health system. In this way, information on food contamination through food monitoring can be linked with foodborne disease data and can lead to early warning and appropriate risk-based food control policies. Moreover, the credibility of a national food control system depends on the capabilities of those within the system to analyse and act upon those data. Thus, being able to make the most of limited data by performing trend analyses, modelling and forecasting has become equally important in reducing the burden of foodborne disease and facilitating and monitoring an increasingly global food trade.

a) Provide the scientific basis for decision-making in policy development and risk management

WHO, in collaboration with FAO, provides the scientific advice as the evidence base for Codex standards, as well as guidelines, recommendations and policy options. WHO has the authority, the reach and the convening power in the field of global public health to undertake this essential function. Scientific advice has been provided for decades through long-standing and well-established mechanisms—namely, the Joint FAO/WHO Expert Committee on Food Additives (JECFA), the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) and the Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA). Emerging and emergency issues as well as complex assessments need to be addressed through targeted ad hoc expert meetings. Building on the long-standing experience of the Organization in the conduct of such expert meetings, other important areas, such as antimicrobial resistance development, will also be addressed in a systematic manner. WHO, through its global networks, can ensure that this scientific advice is widely disseminated and made as accessible as possible so that it may be used as the basis for standard-setting, policy development and decision-making at national and international levels, as well as for recommendations developed by other WHO programmes. Private sector entities and nongovernmental organizations also make use of the independent scientific expert advice and the resulting recommendations provided by WHO.

Strategic actions

- i. Carry out independent international risk assessments for priority food hazards, including evaluation of the health impact of new technologies
- ii. Develop guidance for a systematic approach for the development of rapid risk assessment advice for emerging and emergency issues, including a tiered approach to risk assessment ("fit for purpose")
- iii. Develop an evaluation framework that allows—in addition to safety—the inclusion of other considerations, such as health benefits and socioeconomic consequences
- iv. Continue the development of internationally harmonized risk assessment methodology reflecting the state of the science
- v. Enhance awareness and understanding of the inter/linkages and relevance of food safety in the context of food security, and promote systematic integration of food safety into policies and interventions to improve nutrition and food availability

b) Establish international standards and recommendations and promote their implementation and importance in public health

The global distribution of food increases the possibility that contaminated food produced in one country could pose a risk in other parts of the world. The establishment of global food safety standards, developed with the full involvement of all countries, will help to protect people everywhere from the risks of foodborne disease. The adoption and enforcement of national standards consistent with Codex standards will help to ensure a safe food supply globally and will also facilitate entry into the global marketplace.

Since 1995, Codex standards and related texts have become international benchmarks for food safety standards under the WTO's SPS Agreement. WTO Members applying Codex standards are considered to be in compliance with their rights and obligations under the WTO. WTO Members applying measures stricter than Codex standards may be asked to justify them and demonstrate that they are based on sound risk assessment. WHO plays a major role in the scientific and public health work of Codex. The Organization provides leadership in ensuring that the standards set by Codex are scientifically sound and based on considerations of public health and in advocating for the wide implementation of these standards.

Strategic actions

- i.** Strengthen the public health leadership of international standard-setting bodies such as the Codex Alimentarius Commission and advocate for the wide implementation of international standards
- ii.** Continue WHO's involvement in and support of the Codex Alimentarius Commission
- iii.** Ensure that the independent scientific advice from FAO/WHO expert meetings forms the key evidence base for Codex standards
- iv.** Develop recommendations, guidelines and/or guidance to inform policy decisions for emerging and emergency issues
- v.** Support effective participation of developing and transition economy countries in the work of the Codex Alimentarius Commission

c) Establish new approaches to systematically collect, analyse and interpret data and other information to better guide risk analysis and underpin policy decisions



All Member States should have access to global data and information for decision-making. This can be very costly in terms of funding, infrastructure and expertise needed in interpreting the data. WHO, as the global public health authority, is soundly positioned to provide tools and guidance for data sharing and interpretation among Member States to strengthen the health risk analysis process and underpin policy decisions.

Building on the expertise and work already undertaken by WHO, such as the collection of data on monitoring the concentration of chemicals in food and antibiotic resistance in

pathogens, knowledge management tools can be developed enabling that information sources be accessed and utilized through a central point. This will not be limited to WHO databases and information sources, but will also allow trusted external sources to be integrated for a more complete and accurate knowledge base for informed decisions making.

Strategic actions

- i. Develop databases and tools to collect, improve access to and interpret relevant data and other information
- ii. Establish and map links between different data sources to facilitate the application and interpretation of combined data and increase efforts to share data among agencies and Member States
- iii. Strengthen links with national public health systems to integrate health surveillance and food monitoring data and improve understanding of their attribution to foodborne health risks

d) Provide a comprehensive framework for determining the burden of foodborne diseases

WHO provides internationally recognized methodologies to generate health-related baseline data and trend analysis. In the specific area of burden of disease estimation, WHO has a long history and considerable experience and is internationally recognized for (a) its public health leadership capacity to assemble globally accepted health information and (b) its convening power of bringing together both the knowledge and expertise of the individuals and organizations that have a stake in the estimation of burden of foodborne disease and food safety policy development.

To date no reliable data on the full magnitude and extent of foodborne diseases exist. Assessing the burden of foodborne diseases from all causes (microbial, parasitic, chemical and natural toxins) requires a multidisciplinary approach to arrive at meaningful results that integrate all relevant data.

Strategic actions

- i. Strengthen the capacity of countries in generating baseline and trend data on foodborne diseases
- ii. Encourage food safety stakeholders to utilize such estimates in analyses of the cost-effectiveness of interventions as well as the development of food safety standards and policies
- iii. Provide baseline and trend estimates on the global burden of foodborne diseases for a defined list of causative agents of microbial, parasitic and chemical origin



STRATEGIC DIRECTION

2

Cross-sectoral collaboration

Improve international and national cross-sectoral collaboration, enhance communication and advocacy



Promoting food safety and reducing risks at the human–animal interface, including threats from foodborne zoonoses, require an ongoing effort and cannot be approached from one direction only. The complexity of public health threats requires effective cross-sectoral collaboration to increase efficacy, efficiency and sustainability of interventions.

WHO focusses on facilitating and improving closer collaboration among the public health, animal health, agriculture and other relevant sectors, to guide risk assessment and management and to align communication. By promoting cross-sectoral activities and partnerships among WHO Member States, technical institutions, nongovernmental and intergovernmental organizations, as well as industries and other key stakeholders, WHO aims to increase efficiency and avoid duplication of efforts and confusion about the roles of the various sectors involved in food safety. WHO, in close collaboration with FAO and OIE, provides leadership in global efforts to reduce the risk at the human–animal interface in order to prevent and control public health risks from foodborne diseases.

a) Promote cross-sectoral collaboration and information sharing to optimize the response to foodborne health risks, including outbreaks

Many Member States still lack the necessary surveillance capacity for outbreak detection, assessment and response. In addition, foodborne disease outbreaks go undetected, in part due to lack of communication among the human, veterinary, agriculture and food sectors. WHO, with its partners, has a number of networks and tools in place to address these gaps.

The Global Foodborne Infections Network (GFN) was established to strengthen national and regional integrated surveillance, investigation, prevention and control of foodborne and other enteric infections. The network promotes integrated, laboratory-based surveillance and fosters intersectoral collaboration and communication among microbiologists and epidemiologists in human health, veterinary and food-related disciplines. Strengthening this network through targeted, needs-based capacity building efforts is key in further developing fast-reacting and interconnected response systems.

Another important aspect of addressing health threats is early warning based on robust assessment to inform action and encourage timely communication. In response to threats such as the avian influenza



virus H5N1 and severe acute respiratory syndrome (SARS), the Global Early Warning System for Transboundary Animal Diseases, including Zoonoses (GLEWS), was jointly established by WHO, FAO and OIE. GLEWS builds on existing internal systems of the three participating organizations to confidentially track and verify events in order to improve harmonization and decrease duplication. It embodies a unique cross-sectoral and multidisciplinary partnership for early identification and assessment of health risks at the human–animal–ecosystem interface.



To ensure a comprehensive approach, GLEWS links with INFOSAN to ensure and promote seamless action throughout the food value chain within the human–animal–ecosystem interface. INFOSAN is a voluntary global network of food safety authorities and provides an important platform for the rapid exchange of information in the case of food safety crises and for sharing data on both routine and emerging food safety issues.

GLEWS and INFOSAN rely on functional and sensitive indicator- and event-based integrated surveillance systems geared towards early and reliable detection of health events in countries. This monitoring is done in close collaboration with the WHO Alert and Response Operations program as part of WHO's event detection activities, and working under the umbrella of the International Health Regulations (2005). This also enhances the provision of a wider range of expertise and ensures that public health, food safety and veterinary networks are engaged in early warning, information exchange and risk assessment.

The tripartite collaboration among WHO, FAO and OIE recognizes that countries may require support in establishing effective strategies for improving preparedness for and response to a variety of zoonotic health threats, including foodborne diseases. Work within the tripartite framework aims at supporting the strengthening of national strategies and systems to improve governance, infrastructure and national legislation to enable veterinary and public health authorities to carry out key functions. Further aspects are the development of processes to address gaps and strengthen collaboration of human and animal surveillance systems to allow sharing of epidemiological and pathogen-related data in order to facilitate timely analysis and response.

Strategic actions

- i. Facilitate rapid exchange of food safety information among INFOSAN members and provide technical support to improve response to international foodborne outbreaks and food safety emergencies
- ii. Share technical information on foodborne health threats to allow identification of data gaps and for integrated risk assessment, prevention and control
- iii. Establish cross-sectoral linkages among human and animal surveillance systems to minimize duplication of monitoring, reporting and delivery systems and facilitate integrated risk assessments
- iv. Develop an efficient capacity building mechanism to better integrate disease and epidemiological data with laboratory surveillance data
- v. Establish and foster global frameworks and mechanisms to ensure strategic alignment and collaboration with other sectors, particularly the agriculture and animal health sectors

b) Ensure risk communication and health promotion/education in support of foodborne disease prevention

Effective communication of information on risks associated with hazards in food is an essential and integrated component of the risk analysis process.

WHO supports foodborne disease prevention through the development of messages and materials aimed at assisting Member States in promoting food safety throughout the production chain and across sectors.

There is a need to provide targeted and accurate information and health messages in clear and understandable terms, to promote awareness and understanding of a specific food safety issue. WHO develops tools to assist countries in developing sustainable, preventive educational programmes. As an example of a global health message rooted in scientific evidence, WHO has developed the Five Keys to Safer Food message, which explains the basic food hygiene principles that individuals all over the world should know to ensure safe food handling practices to prevent foodborne diseases.

There is also recognition that women play a key role in food production and preparation and are

an efficient target for food safety education to promote change that improve health. Education of women in food hygiene goes beyond foodborne disease prevention. The adoption of safe food production and handling practices will have a positive impact on the overall hygienic behaviour of members of families and society, which will contribute to improved community health and to the achievement of the Millennium Development Goals that aim to reduce poverty, empower women, reduce child mortality and improve access to basic sanitation.



Strategic actions

- i. Develop specific messages and information for policy-makers, risk managers and end users to promote food safety along the farm-to-table continuum, including integration of food safety in nutrition and food security programs
- ii. Advocate and ensure that the results of scientific assessments are communicated in an easily understandable form to permit dialogue among stakeholders, including consumers
- iii. Empower women through food safety education

STRATEGIC DIRECTION

3

25

**Leadership
and technical
assistance**

Provide leadership and assist in the development and strengthening of risk-based, integrated national systems for food safety

In order to detect, prevent and manage the public health risks associated with contaminated food or diseased animals entering the food-chain, countries need comprehensive systems covering activities in many sectors, from primary production to the consumer. Effective and resilient national food safety systems are crucial for all other relevant work, as they form the basis for activities to reduce food-related public health threats and therefore also enable Member States to meet their obligations under the IHR. Coordinating health systems across various sectors —particularly the agricultural, animal and human health sectors— facilitates sustainability and will allow gaps and overlaps along the entire food-chain to be identified and managed.



While the detailed components and priorities of a food safety system will vary from country to country, systems need to comprise the following **key components**:

The foundation is a set of modern ***food safety laws and regulations*** with a focus on human health protection, which identify mandates and areas of responsibility. The development of relevant and enforceable food safety laws and regulations is essential to support a credible system and build the confidence of consumers and trading partners. It is important that food safety laws and regulations define a clear mandate to food safety and other relevant agencies to prevent and manage food safety issues. To the extent possible, modern food safety laws should not only embed the necessary legal powers and prescriptions to ensure food safety, but also allow the food safety authority and relevant agencies to build preventive approaches into the national food safety system.

In addition to legislation, national governments need ***modern and updated food standards*** —in particular, horizontal standards that address the issues involved in achieving food safety objectives. Enforcing such standards requires a food-chain that is highly controlled and supplied with appropriate data on contaminants, hazards and risk management strategies. In developing or adopting standards, countries should adopt Codex standards to the extent possible.

Standards must be based on solid scientific advice, and building risk assessment competence in the country or region is an important element. This will ensure that standards are adapted to the existing conditions and are capable of delivering the level of public health protection expected when implemented appropriately. The development of international norms and standards to assist Member States is covered under Strategic Direction 2.



Effective food inspection and enforcement services to administer and implement food regulations are required, with clear structures and accountability. Well-trained and highly qualified food inspectors are critical.

As support to the inspection services and for the collection of epidemiological data, **laboratory services** have a key function. These will supply the entire system with data and information about the hazards and risks associated with food and with data on foodborne diseases collected by the national disease surveillance system. Information on foodborne diseases may be linked with food monitoring data and will lead to appropriate risk-based food control strategies and the development of early warning systems for outbreaks and product contamination. Improving efficiency and preparedness should also include use of modern information technology for improved data collection, evaluation and sharing.

Education and provision of timely information and communications to food producers, consumers, food inspectors and workers along the food-chain are becoming an increasingly important part of food safety systems and require cross-sectoral collaboration. The provision of guidance and tools for this aspect to assist Member States is covered under Strategic Direction 3.

Although regulatory and institutional frameworks vary among countries, the international obligations under which they operate are the same globally, such as the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement), which uses Codex standards as international benchmark, and the IHR. Assisting Member States in understanding and implementing international obligations and facilitating cross-sectoral collaborations to align their governance and frameworks can be effectively accomplished by WHO.



a) Assist countries in building and strengthening risk-based regulatory and institutional frameworks

Strategic actions

- i. Assist countries in analysing and improving their systems and legal frameworks, including infrastructure for food safety; the cross-linkages and gaps in or constraints to communication; and collaboration between administrative levels and among sectors
- ii. Develop and provide practical tools to ministries for strengthening cross-sectoral collaboration to address foodborne health threats at the national level
- iii. Work with the animal health sector and other relevant partners in regions and countries to assess and strengthen food safety systems and legal structures between organizations and institutions

b) Increase countries' capacity to manage food safety risks in emergency and non-emergency situations

Strategic actions

- i. Assist countries in implementing Codex and other adequate standards at the national level
- ii. Assist countries in the establishment and refinement of systems to monitor, assess and manage food safety incidents and emergencies

c) Assist countries in the development and strengthening of enforcement structures

Strategic actions

- i. Implementation of food inspection and control services with qualified personnel
- ii. Development of laboratory capacity at national and regional levels
- iii. Introduction of modern information management systems and information sharing

ANNEX 1

BACKGROUND DOCUMENTS

Primary documents

- WHO Global Strategy for Food Safety: Safer Food for Better Health (2002)
- WHA63.3: Advancing Food Safety Initiatives (2010)
- Western Pacific Regional Food Safety Strategy (2011; 2011–2015)
- Food Safety and Health: A Strategy for the WHO African Region (2007)
- Summary Report of the High Level Technical Meeting to Address Health Risks at the Human–Animal–Ecosystems Interfaces, 15–17 November 2011, Mexico City, Mexico
- South-East Asia Region “10 Point Regional Strategy for Food Safety” (1998)
- Technical Papers for Asia-Pacific Strategy for Emerging Diseases (2010)
- Regional Strategic Framework for Prevention and Control of Zoonoses in the South-East Asia Region (2007)
- Zoonotic Diseases: A Guide to Establishing Collaboration between Animal and Human Health Sectors at the Country Level (joint publication between WHO Regional Office for the Western Pacific, WHO Regional Office for South-East Asia, FAO and OIE, 2008)
- FAO/OIE/WHO Tripartite Concept Note (2010)
- WHO Regional Office for Europe: Tackling Antibiotic Resistance from a Food Safety Perspective in Europe (2011)

Other sources

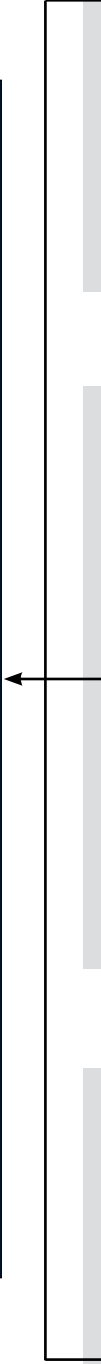
- Minutes from regional adviser meetings (2010; 2011)
- Minutes from the Department of Food Safety and Zoonoses retreat (2011)
- Advocacy materials/web pages

ANNEX 2

OBJECTIVE TREE DIAGRAM

Strategic Plan for Food Safety Including Foodborne Zoonoses 2013–2022

The burden of foodborne disease reduced, thereby strengthening the health security and sustainable development of Member States



1 Provision of scientific advice and development and implementation of food safety standards, guidelines and recommendations increased

- 1.1. Scientific basis provided for decision-making in policy development and risk management
- 1.2. International standards and recommendations established and their implementation and importance in public health promoted
- 1.3. New approaches to systematically collect, analyse and interpret data and other information to better guide risk analysis and underpin policy decisions established
- 1.4. A comprehensive framework provided for determining the burden of foodborne diseases

Strategic Direction 1

Provide the science base for measures along the entire food-chain to decrease foodborne health risks

2 Participation in cross-sectoral networks for reduction in foodborne health risks, including those arising from the animal-human interface, increased

- 2.1. Cross-sectoral collaboration and information sharing promoted to optimize the response to foodborne health risks, including outbreaks
- 2.2. Risk communication and health promotion ensured in support of foodborne disease prevention

Strategic Direction 2

Improve international and national cross-sectoral collaboration, enhance communication and advocacy

3 The number of Member States with a risk-based food safety system and enforcement structures in place increased

- 3.1 Countries assisted in building and strengthening risk-based regulatory and institutional frameworks
- 3.2 The countries' capacity to manage food safety risks in emergency and non-emergency situations increased
- 3.3 Countries assisted in the development and strengthening of enforcement structures

Strategic Direction 3

Provide leadership and assist in the development and strengthening of risk-based, integrated national systems for food safety

Actions

- 1.1.1. Carrying out independent international risk assessments for priority food hazards, including evaluation of the health impact of new technologies
- 1.1.2. Developing guidance for a systematic approach for the development of rapid risk assessment advice for emerging and emergency issues, including a tiered approach to risk assessment ("fit for purpose")
- 1.1.3. Developing an evaluation framework that allows—in addition to safety—the inclusion of other considerations, such as health benefits and socioeconomic consequences
- 1.1.4. Continuing the development of internationally harmonized risk assessment methodology reflecting the state of the science
- 1.1.5. Enhancing awareness and understanding of the interlinkages and relevance of food safety in the context of food security and promoting systematic integration of food safety into policies and interventions to improve nutrition and food availability
- 1.2.1. Strengthening the public health leadership of international standard-setting bodies such as the Codex Alimentarius Commission and advocating for the wide implementation of international standards
- 1.2.2. Continuing WHO's support of the Codex Alimentarius Commission
- 1.2.3. Ensuring that the independent scientific advice from FAO/WHO expert meetings forms the key evidence base for Codex standards
- 1.2.4. Developing recommendations, guidelines and/or guidance to inform policy decisions for emerging and emergency issues
- 1.2.5. Supporting effective participation of developing and transition economy countries in the work of the Codex Alimentarius Commission

- 1.3.1. Developing databases and tools to collect, improve access to and interpret relevant data and other information
- 1.3.2. Establishing and mapping links between different data sources to facilitate the application and interpretation of combined data and increase efforts to share data among agencies and Member States
- 1.3.3. Strengthening links with national public health systems to integrate health surveillance and food monitoring data and improve understanding of their attribution to foodborne health risks

- 1.4.1. Strengthening the capacity of countries in generating baseline and trend data on foodborne diseases
- 1.4.2. Encouraging food safety stakeholders to utilize such estimates in analyses of the cost-effectiveness of interventions as well as the development of food safety standards and policies
- 1.4.3. Providing baseline and trend estimates on the global burden of foodborne diseases for a defined list of causative agents of microbial, parasitic and chemical origin

Actions

- 2.1.1. Facilitating rapid exchange of food safety information among INFOSAN members and providing technical support to improve response to international foodborne outbreaks and food safety emergencies
- 2.1.2. Sharing technical information on foodborne health threats to allow identification of data gaps and for integrated risk assessment, prevention and control
- 2.1.3. Establishing cross-sectoral linkages among human and animal surveillance systems to minimize duplication of monitoring, reporting and delivery systems and facilitate integrated risk assessments
- 2.1.4. Developing an efficient capacity building mechanism to better integrate disease and epidemiological data with laboratory surveillance data
- 2.1.5. Establishing and fostering global frameworks and mechanisms to ensure strategic alignment and collaboration with other sectors, particularly the agriculture and animal health sectors
- 2.2.1. Developing specific messages and information for policy-makers, risk managers and end users to promote food safety along the farm-to-table continuum, including integration of food safety in nutrition and food security programs
- 2.2.2. Advocating and ensuring that the results of scientific assessments are communicated in an easily understandable form to permit dialogue among stakeholders, including consumers
- 2.2.3. Empowering women through food safety education

Actions

- 3.1.1. Assisting countries in analysing and improving their systems and legal frameworks, including infrastructure for food safety; the cross-linkages and gaps in or constraints to communication; and collaboration between administrative levels and among sectors
- 3.1.2. Developing and providing practical tools to ministries for strengthening cross-sectoral collaboration to address foodborne health threats at the national level
- 3.1.3. Working with the animal health sector and other relevant partners in regions and countries to assess and strengthen food safety systems and legal structures between organizations and institutions
- 3.2.1. Assisting countries in implementing Codex and other adequate standards at the national level
- 3.2.2. Assisting countries in the establishment and refinement of systems to monitor, assess and manage food safety incidents and emergencies
- 3.3.1. Implementation of food inspection and control services with qualified personnel
- 3.3.2. Development of laboratory capacity at national and regional levels
- 3.3.3. Introduction of modern information management systems and information sharing

Annex 2 represents the strategic plan in an objective tree diagram, illustrating how the proposed actions contribute to the objectives so the three outcomes can be reached. This diagram will facilitate the implementation of the strategic plan and the monitoring of its achievements.

This Strategic Plan builds on World Health Assembly resolution WHA63.3 (May 2010) and provides a coherent framework for taking action on priority issues in the area of food safety and foodborne zoonoses for the period 2013–2022, and forms the basis of the WHO Twelfth General Programme of Work (2014–2019) for the program area food safety in Category 5.

The scope of the Plan covers food safety in all ramifications, encompassing the farm-to-table approach and including foodborne diseases of zoonotic origin. Therefore, all references to “food safety” or “foodborne diseases” comprise aspects or diseases of non-communicable and communicable origin, including foodborne zoonoses.

The Plan sets out three global strategic directions together with objectives and more detailed activities needed to achieve the overall mission:

To lower the burden of foodborne disease, thereby strengthening the health security and ensuring sustainable development of Member States

The three strategic directions are as follows:

1. Provide the science base for measures along the entire food-chain to decrease food-borne health risks
2. Improve international and national cross-sectoral collaboration, enhance communication and advocacy
3. Provide leadership and assist in the development and strengthening of risk-based, integrated national systems for food safety