

WHO events addressing public health priorities

Food safety: from farm to plate

Importance of food safety

Food safety is one of the most critical issues for public health and ensuring food safety impacts the entire food production and consumption chain. Unsafe food is known to be involved in more than 200 different diseases, from communicable diseases, such as cholera and other diarrhoea causing diseases, to noncommunicable diseases, including various forms of cancer. Food safety is not only an issue of people's health; foodborne diseases can have significant economic impact on individuals, communities, businesses and countries. It is therefore a shared responsibility of many: government ministries, organizations, industries, trades and the consumer.

In 2010, following on resolution WHA53.15¹ on food safety in 2000 and in view of the global developments in food production and distribution in the intervening period, the World Health Assembly again highlighted the importance of food safety with resolution WHA63.3² on advancing food safety initiatives. To build on this resolution and to provide a framework for action on the priority issues of food safety, WHO published its strategic plan for food safety including foodborne zoonoses for the period 2013–2022³. The Plan covers all aspects of food safety across the entire food chain, including foodborne diseases of zoonotic origin. Its mission is to “lower the burden of foodborne disease, thereby strengthening the health security and ensuring sustainable development of Member States”.

In recognition of its importance, food safety is the theme for World Health Day 2015, celebrated on 7 April, with the slogan: “From farm to plate, make food safe.”

Where are we with food safety in the Region?

While progress on food safety has been made in some countries in the EMR, many continue to face challenges in responding to existing and emerging food safety problems; they lack robust surveillance systems of foodborne diseases, capacity for disease risk assessments and strong intersectoral

collaboration. Implementation of core capacities under the International Health Regulations in the area of food safety is still incomplete and only 5 Member States in the Region report 100% implementation with a regional reported average of 75% implementation. Given the need for the active support of all those involved in the food production and consumption chain, the lack of a holistic approach is one of the greatest current challenges to food safety in the Region.

In light of the need to move food safety forward in the Region, the Regional Office for the Eastern Mediterranean, Centre for Environmental Health Action held a regional meeting for food safety officers from the Ministries of Health and Ministries of Agriculture in Amman, Jordan on 5–7 April 2015. The Meeting included representatives from 19 Member States as well as international experts and several UN Agencies.

The objectives of the meeting were to:

- Update participants on the state of food safety in the Region and Member States (status, gaps and challenges)
- Present emerging food safety issues and priorities at the global level
- Identify areas to be strengthened and the way forward
- Celebrate World Health Day 2015 on Food Safety in the Eastern Mediterranean Region.

Summary points

All participating Member States presented an overview of their national food safety system, the achievements, challenges, gaps, plans to overcome challenges and gaps as well as any identified needs for external assistance. A number of discussions on individual food safety system components arose from these presentations.

In addition, presentations were made on regional challenges, recent developments in global food safety, the food industry's view on food safety, the importance of knowledge, attitudes and practices among food handlers, the “One Health” concept for inter-sectoral collaboration on food safety, the need for updating food laws and regulations and, finally, the use of total diet studies in risk assessment.

The following points were noted in presentations during the meeting.

1. There has been an overall shift in global food safety thinking away from end-product testing to more emphasis on preventing food safety issues from developing in the first place.

¹ Food safety http://apps.who.int/gb/archive/pdf_files/WHA53/ResWHA15/53.pdf

² Advancing food safety initiatives http://apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R-3en.pdf

³ Advancing food safety initiatives: strategic plan for food safety including foodborne zoonoses 2022-2013 http://apps.who.int/iris/bitstream/9789241506281/1/101542/10665_eng.pdf?ua=1

Box 1 Recommendations on food safety for governments and WHO

To Governments: Although the Member States of the Region have many different challenges, it was agreed that common challenges in the Region could be grouped under the following four headings:

Food chain approach

1. Cross-sectoral collaboration needs to be strengthened through application of the food chain approach. This can be done by:
 - Promoting the “One Health” Approach
 - ministries of health/ ministries of agriculture/food safety authorities need to develop and reach primary producers with food safety messages, knowledge and technology – GAP/GVP (Good Agricultural Practices/Good Veterinary Practices)
 - Strengthening information sharing between involved agencies
 - Laboratory-based surveillance data (animal and human) and food monitoring data exchange is required to be able to act across the food chain
 - Meeting the minimal requirements of the IHR 2005 core capacities to effectively deal with food safety events and crises.

Food laws and regulations

2. Member States should review food laws and regulations and update them where such needs are identified. While this is an on-going process in some Member States there is a significant number of Member States where the process is stalled or missing and here it needs to be (re)-activated.

Human resources development

3. Knowledge and skills among food handlers of safe food handling are prerequisites for compliance with systems such as GAP/GMP/GHP/HACCP, etc. (Good Agricultural, Manufacturing, Hygienic Practices and Hazard Analysis and Critical Control Points) and governments need to determine minimum requirements of food safety knowledge among food handlers and initiate required training programmes.
4. Governments need to reach primary producers with the necessary food safety messages and establish delivery mechanisms to raise awareness of relevant food safety issues among these groups.
5. Food safety authorities should work towards developing “a food safety culture” among food business owners and food handlers.
6. Governments need to develop human resources in food control systems through systematic on-the-job training and by promoting formal qualifying technical degree courses in food safety and related disciplines in the educational sector.

Food safety systems

7. To improve their national food safety systems, governments should:
 - Shift focus from end-product testing to prevention
 - Promote risk-based food control and an integrated approach
 - Strengthen national laboratory accreditation bodies and link to international systems
 - Strengthen national and regional risk assessment capacity
 - More regional Total Diet Studies are required to provide scientifically sound exposure assessment in EMR
 - Develop traceability and recall systems
 - Develop and strengthen the voice of consumers on food safety issues
 - Restructure food safety systems where complexity is hampering outcome and establish clear roles for agencies and stakeholders along the food chain
 - Develop a food safety framework to cover the entire food chain – from farm to plate.

To WHO

8. WHO should support Member States technically in the above-mentioned endeavours, starting with the regional assessment of food safety.

This shift has underpinned the risk analysis paradigm and highlighted the need for risk assessment capacity to be developed in national food safety systems.

2. Creating consensus in the Codex Alimentarius Commission on The Codex Principles and Guidelines for National Food Control Systems, which form the basic requirements for an efficient, sustainable and forward looking national food control system, has been a major achievement.
3. There are enormous economic risks involved in the international trade with food when the safety of food is compromised. Member States in the Region have lost business opportunities due to repeated lack of food safety compliance in food exports. Food safety may be addressed in a public-private partnership which could fill some needs that can be managed only with difficulty by Governments alone.
4. Good knowledge, attitudes and practices among food handlers is needed. Dissemination of food safety messages needs to be done with great care as factors such as personal background, education and the daily work context and environment all influence the way knowledge, attitudes and practices are formed and developed in food handlers.
5. The One Health approach represents local, national and global collaborative efforts of multiple disciplines to achieve optimal health of people, animals and plants. It is based on the understanding that a majority of human pathogens are zoonotic by nature, meaning that they have a reservoir in one or more species of animals and that nearly all new human diseases originate from such

animal reservoirs. This highlights the inter-dependence between farming systems and food safety and that preventive action for zoonotic foodborne diseases must involve the relevant sectors of primary production.

6. There is an urgent need to update food laws and regulations given that a large proportion of the food legislation in EMR Member States dates back 40 or more years at a time when many of the current concepts and issues regarding food safety did not exist or were not considered. While some Member States are reviewing and updating food legislation, a significant number still have an inadequate legal basis for their food safety initiatives.
7. Food safety risk assessment capacity needs to be developed in national food safety systems in the Region. Total Diet Studies are useful for exposure risk assessment and are needed in the Region. In the absence of data on actual food consumption in a Member State, any risk assessment undertaken will be inaccurate since estimates of dietary exposure to a certain hazard will not be based on local consumption data but on data collected elsewhere in the world, where dietary patterns are known to be quite different.

The WHO Strategic Plan for Food Safety 2013–2022 was presented and meeting participants were encouraged to identify areas of collaboration and technical assistance needs in line with the strategic plan.

The way forward

Based on the discussions, the meeting concluded with recommendations and actions for governments and WHO (Box 1).