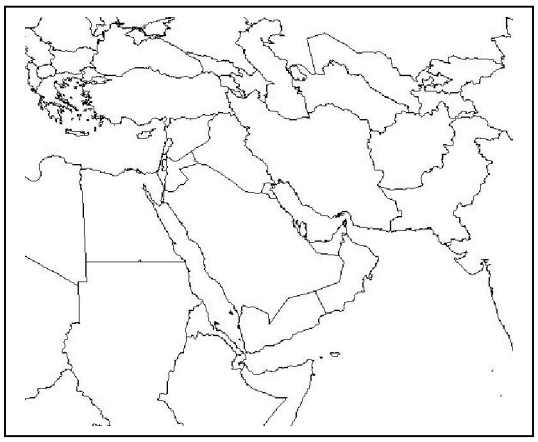
3. EASTERN MEDITERRANEAN REGION



Food safety is increasingly viewed as an essential public health issue in the Eastern Mediterranean Region. In collaboration with WHO, most countries of that region have undertaken extensive reviews of their food safety systems and some have updated their national legislation. Despite efforts to modernize food safety laws, there is limited information available to fully evaluate the food safety problems and issues

3.1 Foodborne diseases in the Eastern Mediterranean Region

Many countries have not established surveillance or reporting mechanisms adequate to identify and track foodborne diseases, so there are no estimates of the rates of human illness linked to foods in the Eastern Mediterranean Region.

The Eastern Mediterranean Region contains the following countries:

Afghanistan, Bahrain, Cyprus, Djibouti, Egypt, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, and Yemen.

According to studies from WHO and FAO, foodborne diseases are generally perceived as mild and self-limiting illnesses, and constitute a fact of daily life in this region. Medications, if used at all, are bought over-the-counter and disease episodes go unreported. Some diseases, like diarrhea and cholera, are frequently viewed as strictly waterborne -- rather than foodborne -- diseases. Medical attention often is sought too late, when the disease has become extremely debilitating and only drastic treatment might be effective.[1] Improvements are clearly needed in the identification and diagnosis of foodborne illness.

Certain regional or local habits, such as the consumption of raw and cooked salads, and certain specific food preparation techniques, such as the preparation of cheeses from raw milk, enhance the opportunity for microbiological contamination, and thus the spread of foodborne diseases.[2]

There is also a growing trend of eating outside the home and consuming ready-to-eat food, particularly among young people,[3] which has increased the risks of foodborne disease outbreaks.

Despite the difficulties of obtaining accurate foodborne disease surveillance data in the Eastern Mediterranean Region, it appears that there is a decline of foodborne disease incidence in Gulf countries, including Saudi Arabia and Oman. This was likely due to a number of interventions, such as increased sanitation, milk pasteurization, canning foods, herd vaccination, economic development, use of refrigerators, improved housing, safer water supply, food monitoring, and improved consumer information.[4]

Impact of food safety standards in the Eastern Mediterranean Region according to WHO

From January to June 2001, 27 percent of food exports from Egypt, Jordan, Lebanon, and Syria to the United States were rejected by the U.S. Food and Drug Administration due to non-compliance with the U.S. safety measures (filth, microbiological contamination, greater than permitted levels of pesticide residues or food additives) and 58 percent were rejected due to labeling problems.

Moreover, product bans have resulted in significant economic losses for the exporting countries of the Eastern Mediterranean Region. In September 1997, Iranian pistachios (the country's third most important foreign exchange earner after oil and carpets) were banned from entering the European Union because of a high content of aflatoxins. Japan imposed a similar ban on Iranian pistachios in October 1998. As a result, Iran lost its 80 percent share of Japan's pistachio market.

Bans on food exports from the Eastern Mediterranean Region have also resulted in considerable difficulties in re-entering and regaining market share in once-important developed country markets. For instance, in September 1998, exports of Egyptian potatoes to the European Union were halted because of contamination from brown rot following an European Union decision requiring imports to be derived from certified disease-free areas. Following this decision, the European Union considered all imports diseased unless proven to be disease-free. As a result, Egypt was obliged to submit dossiers to prove the disease-free status of its potato growing areas. However, the European Commission authorities rejected most dossiers submitted by Egypt due to inadequate documentation (illegible maps and insufficient translation from Arabic) and only five areas of 133 areas were granted pest-free status.

3.2 Policies and plans of action in the Eastern Mediterranean Region

In the Eastern Mediterranean Region, for some countries, land suitable for growing food is scarce. Meeting food needs and ensuring food security depend to a large extent on food imports. Therefore, systems to control their safety and quality are vital for public health. Food exports, on the other hand, provide an important means for other countries in the Eastern Mediterranean Region (non-oil economies in particular) to generate foreign exchange. Effective food safety systems, therefore, are also critical to expanding market shares in food and agricultural exports.[5] (See Box.[6])

Animal diseases have been the driving force for food safety reforms in the Eastern Mediterranean Region as it struggles to contain outbreaks of brucellosis, rabies, and animal-related salmonellosis. Many countries have begun developing

programs to ensure the timely exchange of information on disease occurrence, and have established technical cooperation agreements, control strategies, and legislation.[7] However, prevention of zoonoses (infectious diseases transmitted from animals to humans) and interruption of transmission are inevitably challenged by weak or non-existent cooperation between the public health, veterinary, food safety, and animal trade sectors.[8]

Where food control systems do exist in countries of the Eastern Mediterranean Region, most systems are unable to cope with new challenges. Legislation is out-of-date, inflexible or very fragmented; standards are not consistent with international and national needs; and training in proper food handling is minimal.[9] Often, food inspection models are antiquated and inspectors lack knowledge of modern risk-based approaches to food control.[10] Laboratories have limited scientific and technical expertise, financial resources, and equipment; have difficulty in obtaining necessary reagents and reference materials; and lack internationally recognized accreditation.[11] Governments also have to face resistance to change in their local administrations.[12]

Most countries of the Eastern Mediterranean Region lack reporting systems for foodborne diseases that can effectively communicate with national food control authorities. Even in countries with reporting systems in place, underreporting is common. As a result, the incidence of foodborne diseases is often not used to help define national food safety strategies, and chemical and microbiological contaminants are not given the priority they deserve.[13]

In most countries, food safety is shared among several agencies. In Lebanon, for example, food safety responsibility is shared among six different government agencies. Yet, it has no comprehensive food safety law, and the existing laws are not fully implemented. Extensive use of pesticides, hormones, chemical fertilizers, and antibiotics has led the European Union to ban some exports from that country.[14]

Issues directly related to public health, such as food hygiene and sanitation and foodborne disease surveillance, are usually dealt with by the health authorities at central and local/municipal levels. Matters related to food production, processing, and distribution, including the control of the quality and safety of foods of animal origin, often fall under the authority of the ministries of agriculture. In the Gulf States, because of the relatively limited importance of the agricultural sector in the overall economies of these

countries and the concentration of food-related operations in urban areas, the main responsibility over food control lies with the municipal authorities.[15]

Despite these problems, the importance of food safety has attracted increased attention in the Eastern Mediterranean Region, and a regional plan of action to address food safety in the 21st century was adopted in 1999.[16] In response to that important resolution, most countries have developed food safety country profiles, and have also planned extensive reviews and improvements of their food safety systems. (See Box.[17]) Some examples include:

- Morocco and Tunisia have developed a national strategy for food control and several countries have drafted new food legislation in line with international requirements.[18] Morocco developed a 5-year "Road Map" for the integration of the food control system, calling for the creation of an agency that serves as the central regulatory authority regarding food. In addition, the plan urged the formation of a scientific committee attached to this agency to serve as the country's focal point for food safety risk assessment.[19, 20]

Food safety country profiles

According to the recommendations of the Regional Committee for the Eastern Mediterranean of WHO, member states need to identify and evaluate their current food safety infrastructure and problems at the national level to prepare a country profile.

The country profile should:

- *identify major food safety problems*
- *systematically assess factors relevant to food safety at each stage of the food chain*
- *review health and socioeconomic issues*
- *identify functions of all sectors involved in food safety*
- *clearly identify strengths and weaknesses*
- *establish mechanisms for continuing review*

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- The Islamic Republic of Iran, Sudan, and the Syrian Arab Republic have reviewed and updated their food standards and regulations.
- Yemen has finalized its food safety country profile.
- Egypt, Jordan, Morocco, and Tunisia have harmonized their food-safety standards with the Codex Alimentarius and are moving towards an approach based on risk management.
- Jordan has established a Food and Drug Administration where all stakeholders in food safety coordinate their efforts.
- The United Arab Emirates has adopted the use of customized software for food inspection to monitor and control the safety of food - whether domestically produced or imported.[21]

Harmonization of food policies, regulations, and standards also has received attention in member countries of the Gulf Cooperation Council (GCC).[22] This coalition has drafted common food export procedures that allow for shared inspection policies and standards, and for food produced in or imported into any of the member countries to enjoy circulation throughout the GCC countries.[23]

Moreover, in the Eastern Mediterranean Region, a manual on the development of food legislation was developed and finalized in collaboration with the Pan American Institute for Food Protection and Zoonoses. The manual will assist authorities in the development of legislation that incorporates the health aspect of food safety and is in accordance with accepted international regulations.[24]

There is also growing acceptance and increasing use of good manufacturing practices (GMP), good agricultural practices (GAP), and Hazard Analysis Critical Control Point (HACCP) throughout the Eastern Mediterranean Region, and efforts have been made to improve the education of farmers and other producers. In Sudan, for example, programs have been developed to promote the application of GAP - especially those in connection with the safe use of insecticides and fertilizers. Tunisia has introduced provisions for the application of HACCP by the fish industry in its food safety legislation.[25]

There also has been an increasing tendency to adopt organic production to avoid the excessive and unsafe use of chemicals. The major obstacle of this approach is becoming certified and accredited.[26]

Food safety country profiles (cont.)

Information should be collected in the following areas:

- Government organization: *All agencies involved in food safety—responsibilities and functions as well as the existing mechanisms for coordination*
- Food production and consumption: *Estimates of agricultural production, processing, food consumption, nutrient intakes, and existing food quality and safety programs in the food industry, and surveys of food processing industries present in the country, their type, size, and risk category*
- Food imports and exports: *Import/export trade statistics by volume and value*
- Food legislation: *Reviews of current food legislation, regulations, and standards; implementing legislature and enforcement procedures, systems of coordination among agencies, hygiene, additives, packaging, licensing, inspection, analysis of foods, and any consultation with industry and consumer organizations*
- Epidemiological information: *Prevalence and incidence of foodborne diseases, prevalence of micronutrient deficiencies, quality of data collection, coverage estimates, and coordination between agencies*
- Human resources and training requirements: *Number of staff in each category and agency as well as their qualifications and evaluation of current staff training programs*
- Extension and advisory services: *Current government extension and advisory services to the food sector, non-governmental organization involvement (if any), trade associations, education, and research institutions*
- Public education and participation: *Mechanisms for disseminating of information on food safety and prevention of foodborne diseases, participation of consumer groups, consumer complaint systems, and incorporation of food safety into school curricula*

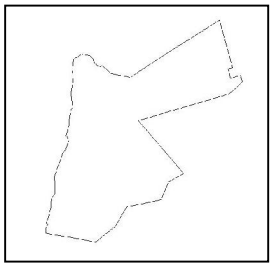
Moreover, many industries of the Eastern Mediterranean Region have decided to apply HACCP on a voluntary basis in order to improve food safety domestically as well as increase their share of export markets.[27]

3.3 Consumer organizations in the Eastern Mediterranean Region

Consumer organizations in the Eastern Mediterranean Region have identified as principal concerns the quality of manufactured food, pesticides, and food safety education and awareness.

JORDAN[28]

The food safety control system for imported food



Following Jordan's accession to the World Trade Organization (WTO) in April 2000, fundamental restructuring was undertaken in the food safety control system of that country, namely issuing the first Food Act and adopting risk management approach within Jordan's strategic framework.

The traditional food control system imposed a system of 100 percent sample collection and laboratory analysis for all food imports to Jordan regardless of their health hazard, with no systematic product traceability nor recorded history on importers' performance. The system was completely manual, time consuming, and lacked measurable tools to track the official staff evaluation and trader's complaints and violations. Minimal information was collected on handwritten sheets. That prevented data from being stored electronically for further statistical analysis by risk managers and policymakers.

Recognizing that the domestic food market depends heavily on imports, a risk management approach was adopted. Criteria based on the public health risk associated with various foods and other factors were utilized to select food entries for monitoring based on three risk categories.

Following implementation of this approach, Jordan was able to:

- Decrease sampling and test analysis by about 50 percent
- Reduce timeframes required for clearance of imported food consignments
- Direct resources towards enhancing inspection methodologies, proper field cargo examination, portion sampling, and more thorough laboratory tests to assess the safety and quality of imported foods
- Establish the first electronic national database information system in the Eastern Mediterranean Region to build strong data collection tracking record, better analyze trends, and enhance reporting and notification
- Build a model for the Eastern Mediterranean Region that can assist many developing countries in reaching a risk management control approach with better resource allocation