INTRODUCTION


4 Documentation of the Iraq study are contained in the following journal articles: [Marsh, Arch. Neurol, 44 1017-1022, 1987], [Cox, Environ. Res. 31, 640-649, 1989], [Cox, Neurotoxicology 16(4) 727-730, 1995].


9 In a 1985 outbreak of salmonellosis in Chicago caused by contaminate pasteurized milk, more than 2 percent of the 170,000-200,000 people infected had reactive arthritis as a result.

10 WHO Global Strategy for Food Safety, at p. 5.

11 Food Safety – An Essential Public Health Issue for the New Millenium, at p. 6.

12 Food Safety – An Essential Public Health Issue for the New Millenium, at p. 2.


14 Food Safety – An Essential Public Health Issue for the New Millenium, at p. 7.


20 Food Safety – An Essential Public Health Issue for the New Millenium, at p. 7.


27 WHO Regional Office for Europe “ Food and Health in Europe: a new basis for action”, WHO Regional Publications, European Series, No 96, 2004 at p.141.


Food Safety – An Essential Public Health Issue for the New Millenium, at p. 7.


With the exception of Israel.

CHAPTER 1: WESTERN PACIFIC REGION


6 WHO Food Safety, p. 3.


8 WHO Food Safety, p. 3.


11 WHO Food Safety, p. 4.

12 WHO Food Safety, p. 2.


17 WHO Food Safety, p. 5-6.

18 For example, in Cambodia, Fiji, Kiribati, Lao PDR, and Vietnam, in collaboration with WHO, food laws and/or regulations have been reviewed and revisions initiated. Food hygiene and environmental health regulations were also reviewed by WHO and guidance provided to Cook Islands and Palau. Food law, hygiene regulations and food recall guidelines were drafted in Vanuatu. Codex Alimentarius Commission “Capacity Building for Food Quality and Food Safety Activities of the Food And Agriculture Organization and the World Health Organization”, June 2003, CAC/27/INF/5, p.31.


20 In many countries, fishery export standards must comply with standards set by Codex Alimentarius or higher importing country standards, while the standards for domestic production and imported seafood products are often lower. Report on FAO/SPC/WHO Pacific Islands Food Safety and Quality Consultation, WHO Regional Office for the Western Pacific, Nadi, Fiji, 11-15 November 2002, printed February 2003.

21 Mr Martyn Kirk (Australian Government Department of Health & Ageing) and Dr Scott Crerar (Food Standards Australia New Zealand) “Enhancing surveillance of foodborne diseases in Australia to control disease and improve food safety”, Second FAO/WHO Global Forum of Food Safety Regulators, Bangkok, Thailand, 12-14 October 2004, CRD 6.

22 *China Epidemi-o-Surveillance of Foodborne Diseases and Food Safety Rapid Alert Systems.*


25 WHO Food Safety, at p. 8-10.


27 Member countries of the ASEAN: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

CHAPTER 2: SOUTH EAST ASIAN REGION


5 Thailand has implemented a programme for prevention and control of diarrheal diseases in the country, focusing on prevention, investigation, monitoring, reporting, and treatment of the diarrheal cases. That program reported a decrease in the diarrheal disease incidence in 2003. In addition to the diarrheal diseases control program, the prevention of food borne diseases generated from contamination with other microbiological agents (e.g. worm diseases and hepatitis-A), toxins, and chemical agents (e.g. pesticides and toxic metals) is also a strategy included in the ’Food Safety Programme’ in Thailand. This program, emphasized and implemented by the Ministry of Public Health, aims to make all foods produced and consumed in Thailand safe and able to meet the international food standard.


7 These programs include:

- The "Clean Food Good Taste" program: This program started in the year 1999 and includes inspection of food services and street vendors all over the country on the basis of hygienic and sanitary standards. Since the program started, more than 30,000 food services, which is almost 30 percent of the food service businesses in the country, have been certified and awarded the "Clean Food Good Taste" mark.

- The certification of fresh markets program: This program entails the inspection of fresh markets for sanitary standards and analysis for the contamination of 6 chemical hazards including pesticide residues. The inspection involves the sampling of food collecting from fresh markets. Any fresh market that passes inspection will be certified and awarded the label of fresh market certification. Fresh markets may then use the label for advertisements. More than 700 fresh markets have applied to join this program thus far.

CHAPTER 3: EASTERN MEDITERRANEAN REGION


2 Impact of current food safety systems on human health, at p.2.


4 Impact of current food safety systems on human health, at pp.6,7.


11 National food safety systems in the Near East, p. 5.


13 National food safety systems in the Near East, p. 5.

14 Contribution of Abed Berro from “Consumers Lebanon.”

15 National food safety systems in the Near East, p. 2.
Technical Paper, Section 5.1 “Regional plan of action to address food safety in the 21st in the WHO Eastern Mediterranean Region.”

Technical Paper, Section 5.2 “Recommendations”.

Egypt, Jordan, Lebanon, Morocco, Oman, Pakistan, Sudan and United Arab Emirates.

National food safety systems in the Near East, p. 2.

TCP/MOR/0168 (A): Appui à la création de l’Agence de la qualité et de la répression des fraudes.

Annual Report 2003, Section 4.3.

Members are: The United Arab Emirates, Bahrain, Saudi Arabia, Oman, Qatar and Kuwait.

Annual Report 2003, Section 4.3.

Annual Report 2003, Section 4.3.

National food safety systems in the Near East, p. 5.


In Oman, Tunisia, UAE and Yemen, quality management regulations based on HACCP have been adopted for fish and fish products to regain access to importing markets (ex. EU market). In addition, Tunisia has introduced provisions for the application of HACCP by the fish industry in its food safety legislation. Some countries, such as Lebanon, Morocco, Oman, and UAE have or are developing legislation and guidelines on GMP and the HACCP system. The Islamic Republic of Iran has introduced legislation requiring HACCP certification for food exports and has strengthened its national capacity to monitor and control residues (pesticides, animal drugs and chemical residues) in foodstuffs with FAO assistance. Food safety and international trade, p.2.


CHAPTER 4: AFRICAN REGION

1 Data from the food safety department of the Regional office department for Africa of the World Health Organization. Available at: <http://www.afro.who.int/des/fos/index.html>.


3 WHO reports that 90 percent of the annual deaths from diarrhea are among children particularly in developing countries. World Health Organization, Regional Office for Africa, Division of Healthy Environments and Sustainable Development, Food Safety Unit, “Hand Washing and Food Safety”, Fact Sheet 2.
4 World Health Organization, Regional Office for Africa, Division of Healthy Environments and Sustainable Development, Food Safety Unit “Food Safety and High Risk Groups: Are you at greatest risk to contracting a foodborne illness?”, Fact Sheet 1 [hereafter “Fact Sheet 1 ”].


6 Fact Sheet 1.

7 Fact Sheet 1


9 Codex, p.9.

10 World Health Organization, Regional Office for Africa, Division of Healthy Environments and Sustainable Development, Food Safety Unit “Mycotoxins”, Fact Sheet 5.

11 World Health Organization, Regional Office for Africa, Division of Healthy Environments and Sustainable Development, Food Safety Unit “Food safety in emergencies”, Fact Sheet 4.

12 The major factor contributing to illness was consumption of cooked food bought at the market.

13 Developing and Maintaining Food Safety Control Systems for Africa.

14 Available at: <http://www.afro.who.int/des/fos/country_profiles/index.html>.

15 Developing and Maintaining Food Safety Control Systems for Africa.

16 Developing and Maintaining Food Safety Control Systems for Africa.


19 A regional strategy for foodborne disease surveillance is currently in preparation by WHO/FAO. Developing and Maintaining Food Safety Control Systems for Africa.

20 Developing and Maintaining Food Safety Control Systems for Africa.

21 Developing and Maintaining Food Safety Control Systems for Africa.


CHAPTER 5: EUROPEAN REGION


3 World Health Organization, Regional Office for Europe, “Food and Health in Europe: a new basis for action”, Part 2, pp. 94-95, ISBN 92 890 1363X.

4 Most of these outbreaks are due to the consumption of foods of animal origin, particularly insufficiently cooked eggs or foods containing raw eggs, such as mayonnaise, ice creams or cream-filled pastries. WHO “Several Foodborne Diseases are Increasing in Europe. ‘Five keys to safer food’ for winter holidays”, Press release EURO/16/03, Copenhagen, Rome, Berlin, 16 December 2003.

5 The countries included in the Balkan region are: Slovenia, Croatia, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Serbia and Montenegro (formerly the Federal Republic of Yugoslavia), Albania, Greece, Romania, Bulgaria, and European Turkey.


7 International Society for Infectious Diseases, “CJD (New Var.) Update 2005 (05),” ProMED-mail Archive Number 20050505.1243, Published May 5, 2005.

8 In particular, on 22 May 2001, the European Parliament and Council adopted Regulation (EC) 999/2001 laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies, which is known as the “TSE Regulation”. This Regulation is applicable as of 1 July 2001. Official Journal of the European Union L 147, 31/05/2001 P. 0001 – 0040.

9 This was introduced in light of scientific consensus that the spread of BSE in cattle was caused by the consumption of feed contaminated by ruminant protein in the form of meat and bone meat (MBM). The European Commission, “Questions and Answers on BSE,” 8 January 2002, Memo/03/3 [hereafter Q&A on BSE].

10 Q&A on BSE.

11 Sweden is allowed to test only a random sample.

12 In the UK, where the vast majority of bovine animals over 30 months of age are destroyed under the Over Thirty Months Scheme (OTMS), BSE testing must be carried out on the following animals slaughtered under that scheme: all bovine animals subject to casualty slaughter, all animals over 42 months of age born after 1 August 1996 and subject to normal slaughter and a random sample of bovine animals born before 1 August 1996 and subject to normal slaughter.


Regulation (EC) No1829/2003 on genetically engineered food and feed regulates the placing on the market of food and feed products containing or consisting of genetically engineered organisms and
also provides for the labelling of such products to the final consumer. *Official Journal of the European Communities L 268*, 18 October 2003, pp. 0001-0023.

β Regulation (EC) No 1830/2003 on traceability and labelling of genetically engineered organisms (GMO) and the traceability of food and feed products from GMOs introduces a harmonised EU system to trace and label GMOs and to trace food and feed products produced from GMOs. *Official Journal of the European Communities L 268*, 18 October 2003, pp. 0024-0028.


β Directive 90/219/EEC, as amended by Directive 98/81/EC, on the contained use of genetically engineered micro-organisms (GEMs), regulates research and industrial work activities involving GEMs under conditions of containment. This includes work activities in laboratories. *Official Journal of the European Communities L 117*, 08 May 1990, pp. 0001-0014.


17 According to a study of the European Federation of Animal Health (FEDESA), in 1999, farm animals consumed 4,700 tons (35 percent) of all the antibiotics administered in the European Union, and humans consumed 8,500 tons (65 percent). Of the antibiotics that were given to animals, 3,900 tons (or 29 percent of the total usage) were administered to help sick animals recover from disease, and 786 tons (or 6 percent of the total usage) were given to farm animals in their feed as growth promoters. The survey estimates that the amount of antibiotics used as growth promoters fell by 50 percent from the levels used in 1997, when animals consumed around 1,600 tons as feed additives. More information is available at: <http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/02/466|0|RAPID&lg=EN>.


21 Examples for these kind of growth promoters are oestradiol 17β, testosterone, progesterone, zeranol, trenbolone acetate, and melengestrol acetate (MGA).


23 Only three uses remain permissible on a transitional basis and under strict veterinary control: treatment of foetus maceration/ mummification, pyometra in cattle (for animal welfare reasons), and oestrus induction in cattle, horses, sheep and goats. The latter use has to be phased out by September 2006. Products to be used for these remaining permissible purposes have to comply with the general marketing authorization requirements for veterinary medicinal products established in Directive (2001/82/EC). By October 2005 the Commission will present a report on the availability of alternative veterinary medicinal products to those containing oestradiol 17β or its ester-like derivatives for the treatment of foetus maceration/mummification in cattle and for the treatment of pyometra in cattle.


28 Constraints in CEEC countries to Achieving International Laboratory Accreditation.


30 Food safety strategies in Europe.

31 The EFSA was formally established by the Regulation (EC) No 178/2002 (Articles 22 to 49).

32 The “Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH” in Austria, the “Štátna veterinárná a potravinová správa” in Slovakia, the “Agence française de sécurité sanitaire des aliments” in France, the “Agencia Española de Seguridad Alimentaria” in Spain, the “Agência para a Qualidade e Segurança Alimentar” in Portugal, the “Bundesamt für Verbraucherschutz und Lebensmittelsicherheit (BVL)” in Germany, the “ΕΦΕΤ” in Greece, the “Elintarvikevirasto” in Finland, the “Fødevaredirektoratet” in Denmark, the “FAVV/AFSCA” in Belgium, the “Food Safety Authority of Ireland” in the Republic of Ireland, the “Livsmedelsverket” in Sweden, the “Mattilsynet” in Norway, the “Parikàs un Veterinàrais Dienests” in Latvia, the “Státní zemìdìlské a potravináøské inspekce” in the Czech Republic, the “Valstybineë maisto ir veterinarijos tarnyba” in Lithuania, the “Veterinára-já Toiduamet” in Estonia, the “Veterinarska uprava Republike Slovenije” in Slovenia, the “Voedsel en Waren Autoriteit” in The Netherlands, the Food Standards Agency in the United Kingdom, the “National Sanitary Veterinary and Food Safety Authority (ANSVSA)” in Romania. Available at <http://www.food.gov.uk/aboutus/agencyineurope/eufsanations>.


34 Regulation EC/178/2002 - Article 6.


In particular, Regulation EC/178/2002 - Article 18.


Regulation EC/178/2002 - Articles 19, 20.

In general, these certificates must be signed by an official veterinarian of the competent authority of the exporting third country guaranteeing that the conditions for import into the EU have been met. Source: European Commission, DG Health and Consumer Protection, Animal Health and Welfare Internet Site “Trade and Imports of Live Animals – Introduction”. Available at <http://europa.eu.int/comm/food/animal/liveanimals/index_en.htm>.


Regulation EC/178/2002 - Article 17.

Regulation EC/178/2002 - Article 22.

Regulation EC/178/2002 - Article 34.

Information and data reported: number of ill persons, causative agent, type of food, place where food was consumed, place where food was acquired, place where food was contaminated, factors contributing to outbreak. National sources of data include: statutory notifications (cases reporting); reporting of investigated outbreaks; laboratory reports; special surveys. Source: WHO/Regional Office for Europe “WHO surveillance program for control of foodborne infections and intoxications in Europe”; 8th report 1999-2000, Introduction. Available at <http://www.bfr.bund.de/internet/8threport/8threp_fr.htm>.

The program for surveillance of foodborne diseases in Europe was launched by WHO/Europe in 1980, with the participation of 8 countries. The number of participating countries has steadily increased, reaching

51 The CRLs have been designated in different Community Decisions, Directives and Regulations. Within the framework of Council Decision N° 90/424/EEC on expenditure in the veterinary field of 26 June 1990, these laboratories may receive a Community financial aid for fulfilling tasks and functions specified in legislation. Source: European Commission Internet site “Community Reference Laboratories in the field of Veterinary Public Health (Biological Risks)”. More information available at <http://europa.eu.int/comm/food/fs/sfp/crl_risk_en.html>.


54 RASFF is a system which has been in place since 1979 but which has been revised by the Regulation EC/178/2002 - Articles 50, 51 and 52. More information available at <http://europa.eu.int/comm/food/food/rapidalert/index_en.htm>.


On 26 of April 2004, the Council adopted the Regulation of the European Parliament and of the Council laying down requirements for feed hygiene: “Regulation of the European Parliament and of the Council laying down requirement for feed hygiene”. The proposal will replace Council Directives 95/69/EC and 98/51/EC laying down the conditions and arrangements for approving and registering certain establishments and intermediaries operating in the animal feed sector. The new regulation introduces the following main elements:

- compulsory registration of all feed business operators by the competent authority;
- approval system for feed businesses that deal with higher-risk substances;
- mandatory hygiene requirements for all feed manufactures;
- mandatory good hygiene practice at all levels of agriculture production and use of feed;
- Hazard Analysis Critical Control Point (HACCP) principles for the feed business operators other than at the level of primary production;
- compulsory requirements for feed production at farm level;
- a EU framework for guides to good practice in feed production.

Moreover, it endorses the principle that feed business operators must provide a financial guarantee in order to cover the risks related to their businesses.


Adopted on 29th September 2003:


Within those approved programs, the eradication of some Salmonella serotypes (*Salmonella enteritidis* and *Salmonella Typhimurium*) from fowl breeding flocks (*Gallus gallus*) has been co-financed by the European Community.


**CHAPTER 6: CENTRAL AND SOUTH AMERICAN REGION**

1 World Health Organization, Pan American Health Association, 13th Inter American meeting, at the ministerial level, on health and agriculture “Proposed Plan of Action of the Pan American Institute for Food Protection and Zoonoses (INPPAZ), 2004-2005”, RIMSA 13/5, 17 March 2003, p. 1 [hereafter “Proposed Plan of Action of INPPAZ”].


3 *Proposed Plan of Action of INPPAZ*, p. 3.


5 Data from 21 countries - SIRVETA, Outbreak Data for Latin America and the Caribbean, PAHO- From years 1993 – 2002.

6 *International cooperation on food contamination monitoring and foodborne disease surveillance in the AMRO region.*

7 *International cooperation on food contamination monitoring and foodborne disease surveillance in the AMRO region.*

8 During the mid-1990s, the available epidemiology data showed that *Ciguatera* (a form of human poisoning caused by the consumption of marine fish that has accumulated naturally occurring toxins) was one of the main causes of disease from fish products in Cuba. Between 1993 and 1998, 1086 outbreaks of *Ciguatera* were recorded in Cuba, representing 3116 individual cases. Mortality attributed to *Ciguatera* during this period reached 6 percent of all recorded deaths resulting from food hazards. *Ciguatera* peaked in 1996 with 279 recorded outbreaks. Source: Based on data from the Cuban Ministry of Public Health and Ministry of Fishery Industries (FAO/MIP Workshop on Quantitative Risk Assessment in the Fishery Industry, Havana, March 2000). Available at <http://www.fao.org/docrep/003/x8002e/x8002e05.htm>.


10 Which of the following circumstances have been influential in the appearance of outbreaks of foodborne illness in the Andean countries?

<table>
<thead>
<tr>
<th></th>
<th>Bolivia</th>
<th>Colombia</th>
<th>Peru</th>
<th>Venezuela</th>
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</thead>
<tbody>
<tr>
<td>Population growth</td>
<td>1</td>
<td>1</td>
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<td>P</td>
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<tr>
<td>Growth of vulnerable population groups</td>
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<td>Aspect</td>
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<tr>
<td>Increased urban living</td>
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<td>Increased tourism</td>
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<tr>
<td>Intense international trade</td>
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<tr>
<td>Use of new production techniques</td>
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<tr>
<td>Need for long distance transportation of food</td>
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<tr>
<td>Preference for processed foods</td>
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<tr>
<td>Increased food consumption in institutionalized cafeterias</td>
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<tr>
<td>Lack of food safety training for food handlers</td>
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<tr>
<td>Consumption of food on the street</td>
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<tr>
<td>Personal hygiene throughout the food chain</td>
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<tr>
<td>Minimal attention to hygiene in home kitchens</td>
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<tr>
<td>Excessive retention times (between preparation and consumption)</td>
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<tr>
<td>Inadequate refrigeration temperatures</td>
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<tr>
<td>Insufficient cooking times</td>
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</tr>
<tr>
<td>Cross contamination</td>
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<td></td>
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<tr>
<td>Presence of sick food handlers</td>
<td></td>
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<td></td>
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<tr>
<td>Use of raw materials from uncertain sources</td>
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</tbody>
</table>

* Contraband
** Lack of potable water
*** Others

V = Very influential
I = Influential
P = Poorly influential


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11 Brazilian beef is popularly known as "green beef" to indicate the fact that cattle feed in open pastures or in confined conditions but always with vegetable products.


14 Contribution of Mariso Caipo from Asociación Peruana de Consumidores y Usuarios (ASPEC).


16 Contribution of Mariso Caipo from Asociación Peruana de Consumidores y Usuarios (ASPEC).

17 Total population and population that consulted a doctor in Peru in the year 2000:

<table>
<thead>
<tr>
<th>Total</th>
<th>Ill</th>
<th>Consultation</th>
<th>No consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,655,031</td>
<td>6,448,382</td>
<td>3,603,471</td>
<td>2,884,911</td>
</tr>
<tr>
<td>Healthy</td>
<td>19,176,649</td>
<td>526,205</td>
<td>18,650,444</td>
</tr>
</tbody>
</table>

Registered cases of acute diarrheal disease in children younger than 5 years of age. 1997 – 2002. Peru:

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<tr>
<td>Total</td>
<td>607,871</td>
<td>606,544</td>
<td>515,424</td>
<td>553,854</td>
<td>538,245</td>
<td>665,624</td>
</tr>
</tbody>
</table>

Source: Peruvian Ministry of Health.

Source: Instituto Cuanto: “Encuesta Nacional sobre Medicion de Niveles de Vida (ENNIV) 2000”.

Main causes for hospitalization at the Institute de Salud del Niño (Children’s Health Institute) 1992 – 2001. Lima, Peru:

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</tr>
</thead>
<tbody>
<tr>
<td>Total number hospitalized</td>
<td>6748</td>
<td>6627</td>
<td>6207</td>
<td>7042</td>
<td>7408</td>
<td>7504</td>
<td>11,160</td>
<td>11,543</td>
<td>12,093</td>
<td>11,619</td>
</tr>
</tbody>
</table>

Diseases of the digestive system
|       | 851    | 754    | 820    | 839    | 816    | 886    | 911    | 941    | 900    | 823    |

Other infectious and parasitic diseases
|       | 869    | 634    | 547    | 743    | 749    | 693    | 467    | 388    | 342    | 257    |

DYSENTERY AND GASTROENTERITIS
|       | -      | -      | -      | -      | -      | 519    | 525    | 577    | 677    | 727    |

Source: Instituto de Salud del Niño – Oficina de Estadistica e Informatica.


As of October 2004, INFAL was integrated by 54 laboratories from 28 countries. It was established in December 1997. International cooperation on food contamination monitoring and foodborne disease surveillance in the AMRO region. More information available at <http://www.panalimentos.org/rlaa/ingles/index.asp>.

It was established by PAHO/WHO, in alliance with the U.S. Centers for Disease Control and Prevention - CDC and the National Institute of Infectious Diseases of Argentina. International cooperation on food contamination monitoring and foodborne disease surveillance in the AMRO region.


Epi-ETA is an initiative of the WHO Collaborating Center for Foodborne Disease Surveillance at the Centers for Disease Control and Prevention (Foodborne and Diarrheal Diseases Branch and the Food Safety Office) in the USA and the Pan American Health Organization (PAHO) specialized center, INPPAZ (Pan American Institute for Food Safety) in Argentina. More information available at <http://www.epi-eta.org>/.

SIRVETA has a web-based database where users enter queries about Foodborne diseases. PAHO Member Countries have agreed to report, at least once a month, the information related to cases/outbreaks, with information of patients in terms of place, time and person, the implicated food and the etiological agent. International cooperation on food contamination on food contamination monitoring and foodborne disease surveillance in the AMRO region. More information available at: <http://www.panalimentos.org/sirveta/e/index.htm>.

28 Contribution of the Brazilian consumer organization, PRO TESTE.

29 Law no. 8078 as of September 11, 1990.


31 PRO TESTE, a Brazilian consumer organization, is currently conducting comparative tests in organic vegetables in order to verify such claims in large urban centers.

CHAPTER 7: NORTH AMERICAN REGION


2 Pan American Health Organization, “Core Health Data Selected Indicators. Data Updated to 2002; and the Health Situation Analysis and Trends Summary.” Available at <http://www.paho.org/English/DD/AIS/cp_484.htm>.


• CSPI tracked a total of 3,500 outbreaks, representing 115,700 individual cases of foodborne illness that occurred between 1990-2003. The top five single-food vehicles of outbreaks were:
  • Seafood and seafood dishes, with 720 outbreaks and 8,044 cases of illness.
  • Produce and produce dishes, with 428 outbreaks and 23,857 cases.
  • Poultry and poultry dishes, with 355 outbreaks and 11,898 cases of illness.
  • Beef and beef dishes, with 338 outbreaks and 10,795 cases of food poisoning.
  • Eggs and Egg dishes, with 306 outbreaks and 10,449 cases.
• Multi-ingredient foods (such as salads, pizza, and sandwiches) where the contaminated ingredient was not identified were linked to a total of 591 outbreaks and 17,728 cases of food poisoning.
• Foods regulated by the Food and Drug Administration (FDA) were the vehicles in two-thirds of the outbreaks in CSPI’s database, while foods (meat, poultry) regulated by the U.S. Department of Agriculture (USDA) were the vehicles in one-fourth of the outbreaks.

7 Campylobacter (all serotypes), Salmonella (nontyphoidal), Escherichia coli O157, Escherichia coli non-O157 STEC, and Listeria monocytogenes.

ERS Data, “Foodborne Illness Cost Calculator: Salmonella.” Available at <http://www.ers.usda.gov/Data/FoodBorneIllness/salmIntro.asp?pathogen=Salmonella>. This estimate is for all cases of salmonellosis, not just foodborne cases. The estimate includes medical costs due to illness, the cost (value) of time lost from work due to nonfatal illness, and the cost (value) of premature death. It excludes a number of other potential costs, such as those associated with chronic complications, disutility for nonfatal illness, pain and suffering, travel, childcare, etc.


Center for Science in the Public Interest, Antibiotic Resistance Project, “Human-use antibiotics are used to treat animal disease”. Available at <http://www.cspinet.org/ar/ar_animaldisease.html>.

GAO Report, “Antibiotic resistance: federal agencies need to better focus efforts to address risk to humans from antibiotic use in animals.” April 2004. GAO-04-490.


26 Emergencies plans such as the CFIA Emergency Book and the Functional Food Safety Emergency Plan.


36 Joint Statement.


38 A Living Modified Organism (LMO) is defined in the Cartagena Protocol on Biosafety as any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology. In everyday usage LMOs are usually considered to be the same as GEOs (Genetically Engineered Organisms).

These programs include:

i) the “National Food Safety Education Month” taking place in September whose goals are to reinforce food safety education and training among restaurant and foodservice workers and to educate the public to handle and prepare food properly at home;

ii) the USDA-FDA “Foodborne Illness Education Information Center” which provides information about foodborne illness prevention to educators, trainers, and organizations developing education and training materials for food workers and consumers;

iii) the “Food Safety Training and Education Alliance for Retail, Food Service, Vending, Institutions, and Regulators (FSTEA)” which coordinate efforts of government, industry, and academia in order to change behaviours at the retail level and to remove barriers to communication by facilitating information exchange, strengthening communications networks and alliances, and coordinating/supporting collaborative projects;

iv) the “Primer”, developed by FDA, in collaboration with the American Medical Association (AMA), the CDC, and the USDA, and which is intended to provide physicians with current guidelines for the diagnosis, treatment, reporting, and prevention of foodborne illness; it also provides physicians with information for patients on prevention of foodborne illness;

v) the “Lose a Million (Bacteria)” game, developed by the FDA and the “National Science Teachers Association (NSTA)” which is a fun, interactive game based on the popular TV game show, “Who wants to be a Millionaire.”; the game begins with a million bacteria and the object of the game is to lose bacteria;

vi) the “Science and Our Food Supply” program, developed by the FDA, the NSTA and the “Center for Food Safety and Applied Nutrition (CFSAN)” which is a public education program developed to teach middle and high school students about food safety and food science careers;

vii) the “Senior and Food Safety” campaign developed by FDA and USDA, which informs senior citizens about foodborne illness and contain information on eating in and outside the home and
address, among other topics, why some people are at greater risk for foodborne illness and how to recognize it.


47 For example:

- “EdNet”, the National Food Safety Educator's Network, which is an electronic network for food safety educators intended as a one-way direct mail food safety education update from the FDA, USDA, and CDC; and

- “Foodsafe” which is an interactive electronic discussion group intended as a communication tool to link professionals interested in food safety issues.


56 This estimate is based on the new resources the FDA received in the FY2002 bioterrorism supplemental appropriations. “Hearing on FY 2003 Food and Drug Administration Appropriations Before the Subcommittee on Agriculture, Rural Development, FDA and Related Agencies of the House Committee on Appropriations” (written responses of Lester M. Crawford, Deputy Commissioner).

57 GAO Food Safety Expenditures, at p. 12, 16.