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Report of the Technical Secretariat of the Commission on the Recommendations of COPAIA 4

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1. INTRODUCTION

1. As an essential public health function, food safety should have a central role in national development policies. However, food safety in the Americas includes the activities of multiple entities and institutions, often without clearly defined mandates. This has given rise to the fragmentation of the food protection system and to inefficient resource use. Cooperation and coordination are needed at the national, subregional, regional, and international levels to increase efficacy and, thus, the protection of consumer health, as well as opportunities for trade and tourism.
2. Food security and food safety are fundamental to ensuring each individual's right to have access to safe and nutritious foods, as enshrined in the Universal Declaration of Human Rights and ratified at the International Conference on Nutrition, held in Rome, in 1992. Food safety and food security are indivisible and, in conjunction with other initiatives, they contribute to the progress and scope of Millennium Development Goals, particularly reducing hunger, poverty, the morbidity impact, and infant mortality, and promoting education and sustainable development.
3. National food safety systems are essential for protecting the health of domestic consumers and are critical for guaranteeing the safety and quality of food for international trade and for ensuring that imported food meet the national requirements of the countries. However, the microbiological and chemical agents that cause foodborne diseases continue to directly harm public health and to indirectly undermine regional and international trade in food as well as tourism.
4. Although precise figures are not available, the direct and indirect economic impact of diseases associated with the consumption of contaminated foods is estimated to be high on the global, regional, and national levels, especially among more vulnerable populations. WHO estimates that each year 1.2 billion episodes of diarrheal diseases as well as 2.2 million deaths are attributable to contaminated food,

including 1.8 million in children under five. In the United States, the costs associated with the occurrence of foodborne diseases linked to seven foodborne pathogens is estimated at between US\$ 5.6 and US\$ 9.4 billion. In the Region of the Americas and the Caribbean, acute diarrheal diseases of bacterial and viral origin continue to be a leading cause of morbidity in all age groups, and of disease and death in the under-5 age group, with a greater impact on unprotected and poor communities. The incidence of diarrheal disease outbreaks has increased in countries stricken by natural disasters such as hurricanes and floods. For example, a recent study in Ecuador, for which the benchmark was the health indicators for 2004, estimated the economic cost associated solely with the medical care of 6,829 cases of typhoid fever at approximately US\$ 1.9 million. That same year 8,402 cases of salmonellosis, 7,095 cases of food poisoning, and 5 cases of cholera were recorded. These figures do not take into account the underreporting of these diseases.

5. The agriculture and livestock sector is a priority for the economies of many developed and developing countries in terms of food security, employment, trade, and the generation of foreign exchange. The World Bank recognizes the legitimate and important role played by governments in ensuring the competitive evolution of their industries, including the food industry. Since large, medium, and small companies in the food processing industry are an important source of added value, a basic food control system can and should provide essential tools for this sector's sustainable development. For example, in 2003, because of the correct application of their standards and inspection systems, Latin America and the Caribbean exported food worth about US\$ 63 billion. In the southern and Central American region, 40% and 48% of all exports are of agricultural and livestock origin. In agribusiness, in addition to losses caused by the rejection of food in national and international markets, there are growing concerns over emerging and re-emerging chemical and microbiological threats. For example: Outbreaks of emerging diseases caused by bacteria, viruses, and marine toxins associated with deficiencies in the food safety systems; the development of microbial resistance to antibiotics; the development of mycotoxins and the emergence of zoonotic diseases such as bovine spongiform encephalitis and avian influenza; the persistence of diseases such as brucellosis, cysticercosis, and tuberculosis in vulnerable and at-risk populations; the use of genetically modified organisms in agriculture and food production; indiscriminate pesticide use.

6. Impact on tourism: Outbreaks of foodborne disease in several tourist destinations in countries in the Region and cruise ships. Tourism is one of the fastest growing industries in the Region. The number of tourists coming to the Region rose from 92.9 million in 1990 to 128.4 million in 2000, for a cumulative growth of 5%. Tourism represents up to 25% of the gross domestic product (GDP) of some countries in the Region and one of the main sectors of job creation and foreign exchange earnings. According to data from the World Travel & Tourism Council, in the Caribbean, this industry provided 2.4 million jobs (15.5% of total employment) and generated US\$ 40.3 billion in economic activity in 2004—for a considerable (tenfold) increase over the US\$ 3.8 billion generated in 1980. In addition, it is estimated that by 2014 the sector will contribute 16.5% of GDP and generate US\$ 81.9 billion in economic activity.

The Role of PAHO

7. PAHO serves as a clearinghouse, disseminating pertinent, up-to-date information and providing support to effectively boost institutional problem-solving capabilities. It facilitates bilateral and multilateral cooperation to permit agreements, joint projects, and missions, through the mobilization of trained human resources from the countries; when strictly necessary, experts in specific areas should be considered after an evaluation of in the strategic plan.

8. The PAHO's support for Member States in the field of food safety centers on the following approaches:

- Collaborating in developing food safety programs at various political and administrative levels in the countries;
- Collaborating with national governments to develop studies on the “burden of disease” and food contaminants. This evaluation facilitates the allocation of the resources toward the appropriate foodborne disease control efforts;
- Enhancing institutional and human capacity, developing leadership in public health surveillance for common foodborne diseases, and adopting systematic approaches decision-making based on scientific evidence such as systematic revisions, meta-analysis, and risk assessments;
- Fostering partnerships, alliances, and interactions with entities of the United Nations system and Organization of American States, as well as with national public health organizations, to successfully implement sustainable food safety policies and provide effective technical support;
- Strengthening linkages between the health and agriculture sectors (public and private) to ensure that food safety interventions are planned and implemented in an integrated manner;
- Participating actively in the healthy municipios strategy, by taking into account health determinants established in the countries.

9. Managing knowledge by strengthening the Information and Documentation Center in the food safety area through the Virtual Food Safety Library as well as in distance training courses to help decision-makers meet the goals outlined in food safety programs and projects through evidence-based decisions.

2. FOLLOW-UP THE RECOMMENDATIONS OF COPAIA 4 AND RIMSA 14 FOR PAHO

RIMSA 14.R2

- a. **Establishing, under the leadership of PAHO, a self-evaluation system for food safety programs at the country level that can be shown to be effective in practice.** PAHO/WHO approached the Inter-American Institute for Cooperation on Agriculture (IICA) to join efforts and prepare the Performance, Vision and Strategy (PVS) instrument. The PVS instrument can help the countries to determine their performance level, share a vision with the private sector, set priorities, and facilitate strategic planning to fulfill their obligations and seize new opportunities. The PVS complements the initiatives of set out in the directives of FAO/WHO for strengthening national food protection services (publication 76 of the FAO in food and nutrition, 2003) and replaces the PAHO/WHO instrument for the self-evaluation of food safety systems ¹. In this manner, the two organizations of the Inter-American System create synergies and avoid duplication. The PVS also makes it possible to determine the current level of performance, attain a shared vision, set priorities, and facilitate strategic planning. To this end a series of variables (from five to eight) have been developed for each of the four essential components: (1) the technical capability to address current and new topics based on scientific principles; (2) the financial and human capital to attract resources and retain professionals with technical and leadership capabilities; (3) the active interaction of the private sector in order to stay the course and carry out relevant programs and joint services; and (4) market access through compliance with existing regulations and the implementation of new disciplines such as the harmonization of standards and agreements on equivalence and regionalization. Joint exercises have been carried out in Ecuador, Peru, Bolivia, and Paraguay during the 2006-2007 biennium. Furthermore, at the FAO/WHO Regional Meeting

on Food Safety, in San Jose, Costa Rica, in December 2005, a joint document was presented by PAHO-FAO-OIRSA-IICA on activities in evidence-based technical cooperation from international food safety organizations. The document analyzed the situation, needs, and progress of food safety programs in Latin America and the Caribbean and formulated recommendations for improvement. Before this meeting a FAO/OP-WHO workshop on training in the Codex Alimentarius was held. Moreover, FAO and WHO headquarters have collaborated to coordinate the participation of countries of the Region of the Americas in the International Food Safety Authorities Network (INFOSAN). INFOSAN's objectives are to support the Member States in dealing with international food safety emergencies and promote and facilitate communication and information exchange among all participants in the food chain. As of March 2008, 166 WHO Member States, and all the countries in the Region of the Americas, had designated focal points for INFOSAN and INFOSAN Emergency. Argentina is actively participating in evaluating and validating the International Health Regulations, as are the MERCOSUR countries. With regard to emergency response regarding disasters that have affected the region, in coordination with the Regional Program (PED), support was given to the countries through the mobilization of resources specialized in veterinary public health in order to join efforts in rapid response measures for the mitigation and recovery of affected social sectors and areas.

- b. **Establishing intervention projects throughout the food chain that are effective for producing safe food, by using scientific evidence-based analysis.** In the Region of the Americas, PAHO-FOS has updated the educational materials for good manufacturing practices-hazard analysis critical control point system (GMP-HACCP) and auditing materials in Portuguese and Spanish. The purpose of these measures is to strengthen capabilities in this area and to encourage safe food production with direct and indirect benefits for health, the economy, and the social systems of Central American countries. In conjunction with the Inter-American Institute for Cooperation on Agriculture (IICA) and through an IICA-ILRI/CFC project, PAHO and the International Regional Organization for Plant Protection and Animal Health (OIRSA) conducted a series of training activities in HACCP, GMP, and GMP and HACCP audits. These activities were aimed at professionals in different areas of the public and private sectors related to the production, manufacture, and marketing of foodstuffs for animal and human consumption, with emphasis on beef production. The training was conducted in 2006 and 2007 in Guatemala, Honduras, Nicaragua, and Costa Rica, the countries of influence in the IICA-ILRI/CFC project. Representatives from the Central American countries, Mexico, Panama, and the Dominican Republic participated in the workshops, and 124 professionals received training. In Argentina, 157 facilitators, from the Ministries of Health and Agriculture as well as the National Animal Health Service have been trained. Likewise, in collaboration with OIRSA, PAHO/HDM/VP/FOS has been working with the Central American countries since early 2006 in creating a uniform food safety code for the subregion. A seminar was held in Panama from 23 to 25 November 2006 to validate the Central American dietary code. The final document is being discussed in each participating country. This action strengthens the work done with the Regional Information System on Food Regulations (LEGALIM), which works in 20 countries of the region and has supported the modification of policies, action plans, or laws for food safety. The LEGALIM/PAHO system has data from Antigua and Barbuda, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela. Finally, the Codex Trust Fund supported the participation of Latin American and Caribbean countries at the meetings of the different Codex Alimentarius Committees. At 11 meetings held in 2006, the attendance of 32 participants from 27 countries was sponsored (Nicaragua, Colombia, Mexico, El Salvador, Brazil, Grenada, Haiti,

Panama, Antigua and Barbuda, Costa Rica, Cuba, Honduras, Paraguay, Suriname, Uruguay, Ecuador, Argentina, Bolivia, the Dominican Republic, Dominica, Guyana, Belize, Jamaica, Saint Lucia, Trinidad and Tobago, Guatemala, and Peru). In 2007, 37 participants from 24 countries were sponsored to attend 10 meetings (Chile, Barbados, Nicaragua, Colombia, Mexico, El Salvador, Brazil, Grenada, Haiti, Antigua and Barbuda, Cuba, El Salvador, Honduras, Paraguay, Saint Kitts and Nevis, Uruguay, Ecuador, Argentina, Bolivia, the Dominican Republic, Dominica, Guyana, Jamaica, Guatemala, Peru).

- c. **Supporting food safety programs at the local level, through the healthy and productive municipalities initiatives.** Contributions have been made for improving national capabilities through the adaptation, validation, and adoption of the manual for the application of the Five Keys to Safer Food in schools, municipal markets, and communities, especially in the priority countries². Moreover, implementation of extra-budgetary projects began in the area of food safety in the initiatives for healthy markets (Bolivia, the Dominican Republic, Guyana, Haiti, Paraguay, and Suriname) and healthy schools in some countries in the Region (Guatemala, Honduras, and Venezuela). In addition, activities have been designed and conducted to provide education on good food handling practices for food handlers in the community of the Rocinha *favela* as well as GMP and HACCP training in conjunction with the Prefecture of Duque de Caxias, Brazil. Finally, there has been annual collaboration with the Government of Uruguay in organizing a municipality-wide Healthy Food Day every 19 May³ and in Argentina there has been collaboration on the healthy municipio strategy.
- d. **Strengthening food monitoring programs and epidemiological surveillance of foodborne diseases, with the effective involvement of laboratories.** One-week, in-person courses were offered to strengthen the comprehensive food safety surveillance systems through the PulseNet networks for Latin America and the WHO Global System for Surveillance of Salmonella and other Enteric Pathogens (WHO-GSS) for ten countries in South America, for eight countries in Central America and the Spanish-speaking Caribbean, and, in coordination with the Caribbean Epidemiology Center (CAREC), for the eight English-speaking Caribbean countries. A total of 78 professionals were trained, including staff from the food reference laboratories, clinicians, and epidemiologists working on foodborne diseases. Technical cooperation among countries (TCC) was carried out between Argentina and Paraguay on conducting integrated surveillance of hemolytic uremic syndrome as well as on detecting *E. coli* and its toxin. Eighty-two persons were trained in epidemiological surveillance and food protection and in techniques used by laboratories that conduct food and clinical testing. In the framework of PAHO technical cooperation with the Inter-American Network of Food Analysis Laboratories (INFAL)⁴—in which 60 laboratories of 29 countries participate—seven courses have been organized through the Internet distance-learning modality (via webcasting). The courses have been attended by 2,234 participants, with between 17 and 23 of the countries being represented at each event. Distance learning courses have helped to build capacity in laboratory quality management and risk assessment of chemical hazards, with a positive cost-benefit compared with in-person training (Argentina, Aruba, Barbados, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, the Dominican Republic, the United States, Uruguay, and Venezuela). Moreover, the INFAL 3rd Assembly (www.panalimentos.org/rilaa/flash/rilaa.asp) was held in Guatemala in August 2005, with support from PAHO and FAO, which serve as the Secretariat ex officio. The action plan for the 2006-2007 biennium was prepared, with a primary focus on strengthening the accreditation activities of member laboratories as well as training activities in priority areas. In collaboration with the Centers for Disease Control and Prevention (CDC) and Argentina's Carlos Malbrán National Institute of Infectious Diseases, a regional database of

electrophoretic patterns of bacterial pathogens that cause foodborne diseases was created through the PulseNet Latin America and Caribbean Network⁵. Fourteen countries actively participate in the network and in CAREC, as a regional reference laboratory for the Caribbean. Five training courses on laboratory protocols and the use of molecular information in epidemiology have been conducted, and the network has held six annual meetings. Food analysis capacity has been strengthened through the creation of national networks of food analysis laboratories, which in turn are linked to INFAL in the Dominican Republic (2006), Cuba (2007), and Peru (2007). Eleven national networks with links to INFAL are currently in operation. In 2007, food safety systems in the Dominican Republic, Peru, and Uruguay were strengthened with the design and holding of three pilot workshops to determine the degree of coordination between laboratories and food inspection services of the ministries of health and agriculture. The execution of an agreement for a TCC between Bolivia and Mexico has helped strengthen food safety systems in terms of monitoring of chemical and biological contaminants in food.

RIMS14.R7

Resources for the food safety action plan: Urging the Member States to present document RIMS14/6 as a frame of reference to regional and international cooperation agencies, subregional common markets, multilateral agencies and other donor agencies for the implementation of the aforementioned plan; to include universities and research and academic training centers in the design and execution of projects; and to present to the World Health Assembly, in May 2005, the concerns of the countries of the Region of the Americas about financing for the activities included in the RIMS14 mandates on food safety. The Resolution requests the Director to facilitate internal coordination of PAHO resources for cooperation in food safety; to promote, together with other regional and international cooperation agencies, the mobilization of external resources through support for the preparation of specific priority projects; and to submit these projects, in coordination with the countries, for the consideration of the regional and subregional economic forums, such as the North American Free Trade Agreement (NAFTA), the Caribbean Community (CARICOM), the General Secretariat of the Central American Integration System (SICA), the Southern Common Market (MERCOSUR), and others:

- a. The RIMS14/6 document, together with the RIMS14 Report, was submitted to the Executive Committee of PAHO. Regular resources and voluntary cooperation funds were redistributed to strengthen this priority area of technical cooperation. These changes were reflected in the Technical Cooperation Program Report from PAHO/WHO of the 2006-2007 and 2008-2009 bienniums.
- b. On 31 August 2005, a meeting of the university consortium was held to support the launch of the PAHO/WHO Master's Degree Program in Food Safety Management. The first cycle of this program began in January 2006 and ended in June 2006, with cooperation from OIRSA. The second cycle was scheduled to end in May 2008. A new group for the English-speaking Caribbean countries is being planned under the direction of the University of the West Indies and financed with external funds from the International Development Research Center (IDRC) of Canada
- c. At the request of the members of the 136th Session of the Executive Committee —held in June 2005— a proposal was prepared for the reformulation of technical cooperation in food safety. This proposal was submitted and approved at the 46th Directing Council, in Washington, D.C.
- d. In coordination with IICA and OIRSA, preparations began on a proposal for a joint project to prepare modules for in-person training on good agricultural and manufacturing practices and HACCP systems, in addition to the auditing of GMP and HACCP systems. With CDC-Atlanta, the

Public Health Agency of Canada (PHAC), and the Danish Food Institute a workshop on integrated systems for antimicrobial resistance was held in Central America in February 2006. A pilot project on the chicken production chain was launched in Colombia, in coordination with the same agencies.

- e. A project financed by IDRC was initiated in cooperation with Canada's Laval University, the University of the West Indies, the University of Saint George, PHAC, the Caribbean Environmental Health Institute, and CAREC to work on food safety and zoonoses in the Caribbean.
- f. The work has been carried out with funds and cooperation from the CDC, the WHO Department of Food Safety, Zoonoses and Foodborne Diseases, Argentina's Carlos G. Malbrán Institute of Infectious Diseases, the PulseNet networks for Latin America, and the WHO program for surveillance of salmonella and other enteric pathogens.
- g. With support from the Public Health Agency of Canada and the University of Prince Edward Island (Canada), two regional courses were offered in knowledge synthesis techniques to support evidence-based decision-making, i.e., systematic revisions in public health, meta-analysis, and quantitative risk assessment.
- h. With extra-budgetary funds from the Arab Gulf Program for United Nations Development Organizations (AGFUND), PAHO/WHO executed a project on food safety in municipal markets in Bolivia, the Dominican Republic, Guyana, and Paraguay. The specific results of the project included a methodology for evaluating basic hygiene and sanitation and the knowledge, attitudes, and practices (KAP) of food handlers, together with training/education modules for food vendors and consumers.
- i. With Brazil's Sanitary Surveillance Agency (ANVISA), a project was created to provide training in risk analysis for all agency staff members who work on food safety.

3. CONCLUSIONS AND RECOMMENDATIONS

- Food Safety continues to be a technical cooperation priority both at both the global and the regional levels.
- Although significant advances in attaining the expected results have been made in the 2006-2007 biennium, the countries must continue to support cooperation activities, and the PAHO/WHO Representative Offices must allocate appropriate financial resources in this area during the 2008-2009 biennium.

4. REFERENCIAS

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