



*executive committee of
the directing council*

PAN AMERICAN
HEALTH
ORGANIZATION

*working party of
the regional committee*

WORLD
HEALTH
ORGANIZATION



97th Meeting
Washington, D.C.
June 1986

Provisional Agenda Item 4.10

CE97/13 (Eng.)
18 April 1986
ORIGINAL: SPANISH

PAHO PLAN OF ACTION FOR FOOD SAFETY

The countries of the Region have accepted the commitment to Health for All by the Year 2000, but this goal will hardly be attainable without the provision in advance of an adequate supply of foods that are safe, wholesome, nutritive and palatable.

Food-related diseases are among the most widespread health problems in the Region. Foods tainted by microbes and their toxins, parasites, chemical and drug residues, hormones, pesticides, and naturally present toxic substances generate health problems with grave consequences. Considerable economic losses are incurred by the countries of the Region from food spoilage and losses and from rejection of their food exports, which do not always meet the quality requirements of importers.

The PAHO Program for Food Protection and Safety, placed under the Veterinary Public Health Program, has been designed and developed in compliance with Resolution XVI of the XXXI Meeting of the Directing Council of PAHO, held in 1985. The purpose of this Plan of Action is to promote country and international measures such that by 1990 more than half of the countries in the Region will have adopted policies, strategies, and technologies for improving food protection, thereby:

- Producing a supply of foods that are safe, wholesome, nutritive, palatable and inexpensive;
- Reducing human morbidity and mortality from food-borne diseases;
- Reducing losses and other injurious effects in the production and marketing of foods;
- Improving the conditions for competition on the international food market and reducing rejections by importing countries.

Activities under the Plan of Action would be for cooperation with the countries in the preparation and implementation of national protection programs. That cooperation would be provided particularly in the different aspects of these programs relating to food legislation, records and reporting systems, inspection and analysis services, epidemiological services, and evaluation machinery.

It will be endeavored to promote that cooperation, by mobilizing the resources of the countries and making use of the institutions already in being in the Region. Measures will include particularly the dissemination of information, manpower training, encouragement to research, and direct technical advisory services.

The Executive Committee is invited to review this Program and Plan of Action with a view to the approval of a resolution submitting it to the Pan American Sanitary Conference.

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PAHO PROGRAM AND PLAN OF ACTION FOR FOOD PROTECTION AND SAFETY

1. Food Protection Today

Food protection embraces all activities directed at the acquisition of an adequate supply of foods that are safe, wholesome, nutritive and palatable, and hence contributes significantly to the prevention of disease and promotion of health. The main object of food protection is to safeguard the health of consumers without neglecting the economic interests of countries, private enterprises and consumers.

1.1 Impact on Health

The impact on health is exerted basically by two factors: microbial contamination on the one hand, and chemical contamination on the other. The most important and alarming effects of microbial contamination are gastrointestinal diseases, and diarrhea in particular. There is growing recognition that contaminated foods cause a high proportion of the cases of diarrhea in small children. WHO has pointed out that in 1980 alone there were more than a 1,000 million cases of acute diarrhea in children under five years of age in the developing countries (excluding China), of whom five million died, which amounts to about 10 deaths from diarrhea per minute every day of the year. WHO also recalls that, even when the diarrhea is not fatal, it is known that it can severely aggravate the effects of the meager diet of the inhabitants of those countries because it causes the loss and malabsorption of nutrients, which leads to or aggravates malnutrition.

Other food-borne microbial diseases are also of great importance, ranging from botulism with its dramatic consequences to brucellosis and tuberculosis. The food-borne viral diseases are also a source of concern. In many parts of the world the food-borne parasitic diseases --trichinosis and cysticercosis, among others--are much more important than those caused by bacteria. Also not to be overlooked are the diseases produced by toxic substances naturally present in plant and animal foods. Yet another factor of particular significance is the mycotoxins.

Tourists and travelers are particularly exposed to all these diseases. The World Tourism Organization (WTO) estimates that of the 2,000 million persons who travel as tourists every year, about half may catch diarrhea or some other food- or water-borne disease.

A further problem that gives great cause for concern about the health of consumers is that of chemical contaminants and hazardous residues in foods. Residues of pesticides, heavy metals, polychlorinated biphenyls, prohibited additives and additives which, though approved, are

used in excess of recommended amounts, are all examples of substances that can impair the health of the consumer. The same can be said of the residues of drugs used in animals--antibiotics, anabolics, etc.--whose potentially injurious effects give cause for concern.

1.2 Economic Impact

The severe economic consequences of inadequate food protection are difficult to calculate and, on the whole, have not been the object of any special attention by authorities charged with evaluating this situation.

Economic losses from food-borne diseases include productivity losses caused by absence from work and the costs of medical and hospital care, not to mention, of course, the incalculable value of the human lives lost. An FAO/WHO committee of experts notes that food-borne diseases can be catastrophic for the individual family in a subsistence economy. A debilitating infection caught at planting or harvest time can result in the almost total loss of crops and not only of produce sold on the market, but also that intended for consumption in the household.

Total losses attributed to salmonellosis in the Federal Republic of Germany came to 240 million marks in 1977. The cost of food-borne diseases in the United States of America is estimated at between 1 and 10 billion dollars a year.

Animal and plant production losses from lack of adequate protection are estimated at 25% to 40% a year, to which must be added the economic losses to countries when their food exports are rejected by purchasing countries.

Another important consideration is the drop in inflows of tourists, and the consequent loss of foreign exchange earnings, in countries that are unable to assure visitors of the safety of the foods they will be eating.

2. The Food Protection Situation in the Region

In the wake of the Technical Discussions of the XXVIII Meeting of the Directing Council of PAHO in 1981, the presentations and discussions during the Inter-American Conference on Food Protection, and PAHO evaluations, the food protection situation may be described as disquieting in most of the countries of the Region. Not all the governments give the food protection problem the attention it deserves, nor do they consider protecting the health of consumers in tandem with the economic interests of producers in the private sector and the country at large.

Other contributing factors are shortcomings in the system set up to carry out protection measures both in government agencies and the private firms concerned, and even the inertia or ignorance of consumers themselves.

Foremost among these shortcomings, most of which are closely interconnected, are the following:

2.1 An Insufficient National Commitment to Food Protection

The main result of this is the lack of a national food protection policy and, therefore, of sustained and coordinated effort on the part of responsible authorities at all levels.

2.2 Lack of Coordination Among Responsible Agencies

Responsibility for food protection is spread among different ministries and, within them, among different units, and is not properly coordinated.

2.3 Shortcomings in Laws and Regulations

While most of the countries have a legal framework for food protection, in many cases it is not sufficient for effective enforcement. This is generally because of overlapping of standards and failure to assign clearly defined areas of responsibility to the different government agencies involved in the same activity.

2.4 Infrastructural Problems in the Government Agencies Responsible for Food Protection

Important under this heading are inadequacies of physical infrastructure and lack of training for technical personnel.

The shortcomings of physical infrastructure are particularly apparent in analytical testing laboratories. Very few countries have networks of laboratories that can provide the services required everywhere within their borders. Even in countries that have these networks there is always the problem of availability of equipment. This situation is made worse when a lack of funds for the proper maintenance and adjustment of the equipment results in its remaining virtually unused. Inspection units are generally quartered in premises unsuited for proper organization. Inspectors are not provided with the most irreducible minimum of equipment, and vehicles are in wretched condition or completely nonexistent.

Under the heading of trained personnel the public sector is very short of inspectors, laboratory technicians, information technicians, community educators, and personnel in many other disciplines. This

situation is made worse by their low remuneration, which is inconsistent with the importance of their responsibilities and with the independence that is essential to the proper performance of their duties.

The budgets assigned to these activities leave much to be desired despite the importance of food protection to safeguard the health of consumers and as an aid to the country's development by favoring the earning of foreign exchange from food exports and tourism.

These infrastructural shortcomings are also seen in the chain of production from the private firm to the consumer.

2.5 Lack of Information

Not all the countries have the appropriate information systems--embracing records on producers, products, analytical findings, inspections, violations, epidemiological surveillance, etc.--required by the public sector for the effective performance of its control functions. There is in the countries no reporting machinery that will signal promptly and properly the occurrence of outbreaks of these diseases.

Nor do enterprises and consumers receive promptly all the information they need on all these matters.

2.6 Little Participation in Framing International Food Standards and Difficulty in Accepting and Applying Them

Most of the countries face problems regarding technical participation in the meetings to frame Codex Alimentarius standards, which are a set of standards for food adopted internationally. The secretariat is a joint FAO/WHO program. The problems are an outcome of conflicts between the development of the countries' own standards and those arrived at among other countries actuated by different interests. Also, in some countries there are difficulties in accepting and applying standards.

2.7 Research

Countries cannot always afford and are not always interested in studies to improve analytical and inspection techniques and to determine the importance of chemical and biological contaminants.

No attention is given to epidemiological research into outbreaks of food-borne diseases or to studies of physical losses and the socioeconomic consequences of inadequate food protection.

2.8 Inadequate Health Education

In most of the countries in the Region the bulk of the population has had no proper education in the hygienic handling of foods. This lack is all the more serious in homemakers and persons who process, prepare, sell and serve foods.

For example, no provision has been made in grade school for the health education that children need on this subject.

The shortcomings we have cited have economic and health consequences that are detrimental to the countries of the Region. This can be shown by a few examples.

The enteritides and other diarrheal diseases are among the five leading causes of death at all ages in 17 countries of the Region, and are the first-ranking cause of death in 5 countries and the second in 4.

Moreover, in the United States of America alone, episodes of diarrheal disease are estimated at an average of 0.29 to 1.1 cases per person per year.

On the score of economic consequences, it can be mentioned that in one country of the Region, for example, physical losses during transportation, processing and storage total about US\$600 million in a single year, and this calculation was based only on official public figures for certain groups of foods.

Seizures by the Food and Drug Administration (FDA) of foods exported to the United States of America by countries in Latin America and the Caribbean, exclusive of meats and poultry, exceeded US\$55 million in 1984, and the situation became worse in 1985, when the figure climbed beyond \$93 million. The losses to those countries from the seizure and turning away of food shipments in importing countries on other continents run to similar or even higher figures.

No figures are available on the losses of income from tourism or the costs to countries in Latin America and the Caribbean from food-borne diseases. As previously mentioned, in the United States of America these diseases have been estimated to cost the country billions of dollars every year.

3. Mandates and Resolutions

In the XXVIII Meeting of the Directing Council of PAHO in 1981, the Technical Discussions, held on the subject of "Sanitary Control of Food" resulted in the approval of a resolution recommending, among other things, that the Member Governments develop and maintain coherent national food protection policies with corresponding legislation.

Resolution XVII of the XXXI Meeting of the Directing Council of PAHO, held in 1985, recommended to the Pan American Sanitary Bureau that it draw up as soon as possible a regional plan of action for the protection of foods.

The present document, with its annexes, has been prepared in compliance with that mandate.

It should also be mentioned that several resolutions on food hygiene have been approved by the Region's Ministers of Agriculture in their biennial meetings (formerly known as RICAZ and now as RIMSA) in which they have requested the cooperation of PAHO in implementing them.

4. The Food Protection and Safety Program of the Veterinary Public Health Program

4.1 Goals

To promote national and international measures to the end that by 1990 more than half of the countries in the Region shall have adopted policies, strategies and technologies for improving the food protection situation, and thereby to:

- Achieve a supply of foods that are safe, wholesome, nutritive, palatable and inexpensive to the population.
- Reduce human morbidity and mortality from food-borne diseases.
- Reduce losses and other negative effects on the production and marketing of foods.
- Improve the conditions for competition on the international food market and reduce rejections in importing countries.

4.2 General Strategies

To accomplish the purposes enumerated in the Plan of Action, PAHO will apply the following general strategies:

- It will promote the formulation of national food protection policies entailing positive action by the authorities and the community.
- It will promote the performance of situational studies that include an analysis of the administrative, technical and operational needs of food protection agencies.
- It will promote the execution of national food protection programs that include all the factors needed to bring about the desired changes.
- It will promote regional and subregional training activities in which better use is made of existing resources in the Region itself.
- It will promote the application of appropriate technologies throughout the chain of food production and consumption.

- It will promote the application of rapid, simple and economical food control techniques.
- It will promote the participation of food producers, marketers and consumers in protection work.
- It will promote linkages among country, regional and international agencies interested in food protection.
- It will promote the framing and acceptance of international food control standards and greater coordination among countries.

Annex I presents a review of the principal activities and of the arrangements that have been initiated for collaboration with national and international agencies to facilitate the framing of the strategies. Annex II presents the specific objectives and the strategies and activities of the Plan of Action for attaining them.

4.3 Resources

The activities under this Plan of Action, enumerated in Annex II, will be carried out with the human and budgetary resources already allocated for the purpose to the Veterinary Public Health Program (HPV), as discussed and approved by the Directing Council in its XXX Meeting, and actually available to PAHO during the 1986-1987 biennium. An effort will be made to obtain extrabudgetary funds to strengthen national food protection programs through a Regional Plan of Action to be carried out by FAO and PAHO, in accordance with the Plan of Action approved by the Inter-American Conference on Food Protection in August 1985. The Food and Drug Administration of the United States is working with FAO and PAHO on the design of the Plan and the associated financial proposals for obtaining those funds.

Annexes

COLLABORATIVE ACTIVITIES AND ARRANGEMENTS

Noteworthy among the leading collaborative activities and arrangements are the following outstanding accomplishments of the Veterinary Public Health Program for the promotion and realization of food production activities in the Americas:

Sponsorship of and collaboration in the organization and conduct of the Inter-American Conference on Food Protection (1985)

This Conference was arranged by the Commission on Life Sciences of the National Academy of Science of the United States of America under the sponsorship of the United States, Canada, the Food and Agriculture Organization of the United Nations (FAO) and PAHO. The delegates of 38 countries who attended the Conference agreed to ask PAHO and FAO to carry out a five-year Regional Plan of Action to strengthen the national food protection programs of the countries in the Region. The documentation for this Regional Plan of Action and the financial proposals for its funding are in joint preparation with FAO with the cooperation of the United States Food and Drug Administration (FDA).

Collaboration with the Food and Agriculture Organization of the United Nations (FAO)

To avoid duplications of effort, which would hamper optimal use of the human and financial resources of the two specialized United Nations agencies, talks have been initiated and some agreements reached for the conduct of joint activities. The first of these activities was the successful "FAO/PAHO Latin American Workshop on Foods Marketed by Street Vendors," held in Lima in October 1985 and attended by delegates from 17 countries.

Working arrangement with the United States Food and Drug Administration (FDA)

To coordinate and optimize the Organization's cooperation with countries and make the most of the FDA's technical resources, an arrangement has been made for the joint conduct of some technical cooperation activities. Costa Rica and Jamaica have been chosen as model countries for this joint project. It is expected that something along the same lines will be done with USDA in the area of meats and poultry.

PAHO PLAN OF ACTION FOR TECHNICAL COOPERATION
IN FOOD PROTECTION AND SAFETY

Specific Objectives, Components of the Strategies, and Activities

The PAHO Plan of Action for technical cooperation in food protection and safety will be executed by the Veterinary Public Health Program, as coordinating and executing unit, in articulation with the other programs of PAHO/WHO.

Following is a detailed description of the specific objectives, whose attainment will make it possible to accomplish the purpose, and the strategies to be employed and activities toward each objective, and also the linkages of each activity with other PAHO/WHO programs and other national and international organizations.

PAHO PLAN OF ACTION FOR TECHNICAL COOPERATION
IN FOOD PROTECTION AND SAFETY

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
Establishment by countries of national food protection programs or improvement of existing programs.	Promotion of formulation of national policies and guidelines.	. Cooperating in formulation of food protection policies.		
		. Cooperating in mobilization of national resources usable for food protection.		
	Promotion of formulation of food protection programs.	. Cooperating in formulation, monitoring and evaluation of food protection programs.	HPE	
	Dissemination of information.	. Keeping authorities and professionals in the specialty informed on advances in analysis techniques, food legislation, food-borne diseases (FBD), and food technology, by means of publications.	HBI	
	Promoting and facilitating greater training.	. Organizing and conducting courses in the planning and administration of food protection programs.		
Framing, enactment and enforcement by countries of a basic food law, or improvement of present laws, and issuance of proper implementing standards and regulations.	Promotion of the framing, enactment and enforcement of laws and regulations.	. Cooperating in the drafting of a model basic law.	DLA	FAO
		. Cooperating in ongoing review and revision of current legislation in each country.	DLA	FAO

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
		. Cooperating in work of the Codex Coordinating Committee for Latin America and the Caribbean.	WHO/FOS	FAO
	Promoting and facilitating more training.	. Organizing and conducting regional seminars on food legislation.	DLA WHO/FOS	FAO
	Promotion of research.	. Cooperating in studies for coordination of national standards with those of the Codex Alimentarius.	WHO/FSO	FAO
		. Conducting of comparative studies of national legislations.	DLA	FAO
		. Studies and collection of information on chemical composition, microbiological content and amounts of additives and other residues to facilitate framing of food specifications and standards.		
Strengthening by the countries of their national and provincial agencies.	Institutional organization.	. Cooperating in improvement of organization, apportionment of personnel and physical requirements of the executing agencies of the program.		
		. Cooperating in coordination between national and provincial agencies in food protection activities.		

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
		. Cooperating in coordination of activities in the public sector with private institutions operating in the chain of food production and consumption.		Ind. Assoc.
Strengthening by the countries of their record-keeping services and strengthening or establishment of national reporting systems on food protection.	Promoting the organization and development of those systems.	. Cooperating in improving the organization of records of producers and products, and with the system for the reporting of activities and results.	DIC	
	Promoting and facilitating more training.	. Organizing courses on reporting systems and favoring individual training in this area.	DIC	
Strengthening by the countries of their food inspection services.	Promoting a better organization of inspection services.	. Cooperating in improving the organization of inspection services.		FDA
		. Encouraging application of the risk analysis concept. Critical control points (RACCP).	WHO/FOS	ICMSF
		. Collaborating in dissemination of sound food processing, marketing and preparation practices.		
		. Cooperating in advisory services on hygienic practices for intermediate and small-scale food processors.		

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
	Promoting and facilitating more training.	<ul style="list-style-type: none"> . Preparing, publishing and distributing manuals on rules of procedure for inspections. . Programming inspection operations. . Organizing and conducting training courses for inspectors, including: <ul style="list-style-type: none"> - Hygienic-sanitary inspection of cold-storage plants and slaughterhouses. - Inspection of meat and meat products. - Hygienic-sanitary inspection of fish, shellfish and their products. - Inspection of dairy plants. - Inspection of food distribution and dispensing services. - Inspection of restaurants, food service kitchens, cafeterias, etc. 	CAREC	FDA USDA FNISP (COL)
	Promoting and facilitating research.	<ul style="list-style-type: none"> . Cooperating in studies for adaptation to local conditions of simple and appropriate food preparation and preservation technologies. . Cooperating in research on standards of procedure for inspection services. 	CFNI	FAO

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
		. Cooperating in re- search on application of RACCP.	WHO/FOS	
Establishment in the countries of requi- site numbers of well-organized food analysis laboratories with sufficient and appropriate human and physical resources, organized into a national network. Establishment of a Latin American and a Caribbean network of food analysis laboratories.	Promoting better organization of analysis services.	. Performance of inven- tory of the number of food analysis laboratories and their evaluation.	HSD	
		. Cooperating in improv- ing the infrastructure of laboratories, includ- ing cooperation in selec- tion of equipment appro- priate to the assigned functions.	HSD	
		. Cooperating in organi- zation of national net- works of public food analysis laboratories, including determination of the levels and roles of the different units.	HSD	
		. Cooperating in design of mechanism for integration of private laboratories into the network.		
		. Cooperating in organi- zation of a Latin American and a Caribbean network of food analysis laboratories.	HSD	
		. Cooperating in the estab- lishment of standards for self-policing in food production and processing establishments.		

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
		. Cooperating in establishment of quality assurance and control programs in food analysis laboratories.	HSD	FDA USDA
		. Organizing a system for the accreditation of food analysis laboratories.	HSD	FDA USDA
		. Preparation and provision of some special reagents and reference strains.		
		. Performing reference control tests on food samples in special cases and on microbial strains isolated from them.		
		. Cooperating in the development, adaptation and refinement of analytical techniques for the detection and quantification of residues.		FDA USDA
	Promoting and facilitating more training.	. Preparing, publishing and distributing manuals on techniques of analysis (chemical, microbiological, parasitological, etc.) for food control.	HSD	
		. Organizing and conducting regional and country courses in aspects of: - Food chemistry - Food microbiology - Food parasitology - Food virology - Food toxicology	HSD ECO	USEPA USFDA USDA LNR (MEX) LUCAM INTA (ARG) LANARA(BRA) CLEIBA(PER)

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
		<ul style="list-style-type: none"> - Administration of food analysis laboratories. - Quality assurance and control in food analysis laboratories. - Analytical techniques for detection and quantification of residues. - Preventive maintenance of equipment. 		INH (VEN) INS (CHI) LEA (PAN)
	Dissemination of information.	<ul style="list-style-type: none"> . Cooperating in development of information system on analytical determinations and results, including protocol standardization, codification of standards, tests, and grounds for rejection. 	DIC	
		<ul style="list-style-type: none"> . Compiling, publishing and distributing technical information on the problem of residues in foods. 	HBI HPE	FDA USDA
	Promoting and facilitating research.	<ul style="list-style-type: none"> . Cooperating in development of new chemical and microbiological analytical techniques for food control, particularly techniques that are quick, simple and inexpensive. 	HSD	FDA USDA CLEIBA
		<ul style="list-style-type: none"> . Cooperating in performance of studies for development of quick and inexpensive analytical techniques for the detection of residues. 	HSD	FDA EPA USDA LUCAM LANARA

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
Better integration and coordination of activities and personnel of inspection and analysis services.	Promoting greater integration.	. Cooperating in development of mechanisms for integration of inspection and analysis services.		
		. Cooperating through joint FAO/WHO/UNEP Program for implementation of a national food contaminant monitoring system in countries where it is lacking.	WHO/FOS HPE	FAO UNEP
	Promoting and facilitating better training.	. Organizing and conducting country seminars on integration of professional and technical staffs of inspection and analysis services.		
		. Organizing and conducting courses on the approach of risk analysis. Critical control points.	WHO/FOS	
		. Organizing and conducting courses in sampling for food control.		
		. Preparing, publishing and distributing manuals on food sampling.		
	Promoting and facilitating research.	. Conducting studies for the development of new nondestructive sampling techniques for the analysis of foods.		

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
Greater and better community participation in food hygiene.	Promoting community participation.	. Cooperating in conduct of surveys on levels of food contamination with undesirable residues.	HPE ECO CEPIS	FDA USDA LUCAM IALUTZ LANARA
		. Cooperating in preparation and conduct of education subprograms in hygienic food handling.	HED HPN CFNI HPM PWD	JUNAC HIP.UNANUE
		. Cooperating in preparation and conduct of subprograms of advertising and information aimed at producers, dealers and consumers to encourage their interest in the application of hygienic principles and practices in food handling.	DPI	
A reduction by the countries of the incidence of food-borne diseases (FBD).	Promoting the organization of units specializing in the epidemiology of FBDs.	. Cooperating in promotion of better understanding of food-borne diseases.	WHO/FOS HST CAREC	
		. Cooperating in organization of national FBD research, epidemiological surveillance, control and prevention systems.	WHO/FOS HST CAREC	
	Promoting and facilitating more training.	. Organizing and conducting seminars on the epidemiology and prevention of FBDs.	HST HSM CAREC	

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
		. Organizing and conducting short courses on food hygiene for food handlers, teachers, students and the community at large.	HST HED PWD	JUNAC
	Dissemination of information.	. Publishing information on FBDs.	HST DPL	
		. Cooperating in publication of booklets on FBD prevention for tourists.	HST HBI WHO/FOS	WTO IATA ASTA
		. Encouragement to national public information subprograms on FBD prevention.	DPI HST WHO/FOS	WTO
	Promoting and facilitating research.	. Cooperating in research on FBDs and the nutritional situation.	HST HPN	
		. Cooperating in epidemiological research on outbreaks of FBDs to determine etiological agents, the foods that carried them and the causative factors.	HST	
		. Cooperating in surveys to determine frequency of contamination of staple foods with emergent pathogens and microbial toxins.	HST	
Reduction by countries of adverse socioeconomic consequences of inadequate food protection.	Promoting interest of authorities in the problem.	. Cooperating in work to build awareness of the importance of socioeconomic consequences of inadequate food protection.	DAP	FAO

Specific Objective	Strategy Component	Activity	Linkage with other PAHO/WHO Programs	Linkages w/other Int. & Nat. Orgs.
	Dissemination of information.	. Preparation, publishing and distribution of information on socioeconomic effects of food protection.		
	Promoting and facilitating research.	. Cooperating in research to determine and select indicators for evaluating the economic impact of inadequate food protection, including a decline of tourism.	DAP DRC WHO/FOS	WTO
		. Cooperating in research on material losses in the chain of food production and consumption, rejections of and restrictions on exports, and on the cost of FBDs.	DAP DRC	
Establishment of proper evaluation systems in the countries.	Promoting organization of the system.	. Cooperating in establishment of an efficient system for evaluating the activities scheduled under national programs, the results achieved, and the impact produced.	WHO/FOS	FAO FDA