



PAN AMERICAN HEALTH ORGANIZATION  
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### **PROPOSED ACTION PLAN FOR THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER (PANAFTOSA), 2004-2005**

This document presents the action plan for technical cooperation of the Pan American Foot-and-mouth Disease Center (PANAFTOSA) for the biennium 2004-2005. Created in 1951, PANAFTOSA is an integral part of the Program on Veterinary Public Health of the Pan American Health Organization (PAHO) under the Division of Disease Prevention and Control.

Since May 1998, by mandate of the Governing Bodies of PAHO/WHO, PANAFTOSA has provided technical cooperation on zoonoses with an impact on human health and the economies of countries.

The Technical Cooperation Strategy is carried out within the framework of the Hemispheric Program for the Eradication of Foot-and-mouth Disease and programs for the prevention, elimination, and eradication of rabies, brucellosis, tuberculosis, and hydatidosis, with special emphasis placed on the coordination of actions between the health and agricultural sectors.

PANAFTOSA has proposed a technical cooperation plan for the biennium 2004-2005 organized around six projects: (1) Technical Management; (2) Administrative Management; (3) Foot-and-Mouth Disease; (4) Epidemiology; (5) Zoonoses; and (6) Reference Laboratories. The Zoonoses project includes three subprojects: Rabies, Brucellosis/Tuberculosis, and Hydatidosis. The objective and expected results are described in each case.

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## **Background**

### ***Institutional***

1. The Pan American Foot-and-Mouth Disease Center (PANAFTOSA) is an integral part of the Program on Veterinary Public Health of the Pan American Health Organization (PAHO) under the Division of Disease Prevention and Control (HCP). It was created in 1951 as a project of the Organization of American States (OAS) to assist countries in combating foot-and-mouth disease. In 1968 it became a regular component of the technical cooperation provided by the Program on Veterinary Public Health of the Pan American Health Organization/World Health Organization.
2. Since May 1998, by mandate of the Governing Bodies of PAHO/WHO, PANAFTOSA has provided technical cooperation on zoonoses with an impact on human health and the economies of the countries.
3. PANAFTOSA is recognized by the FAO and IOE as a reference center for the Americas on vesicular diseases.

### ***Organizational***

4. The structure of PANAFTOSA includes the Office of the Director, Administration, and four Technical Units: Vesicular Diseases, Epidemiology, Programs and Services, and Laboratories (Annex I), involving 108 staff members. The technical staff is made up of 15 international professionals, two assigned international professionals (one by APHIS/USDA and the other by FAO), and 8 national professionals (Annex II).

### **Cooperation Strategy**

5. The Technical Cooperation Strategy is carried out within the framework of the Hemispheric Program for the Eradication of Foot-and-mouth Disease (PHEFA), that regionalizes health actions around six subregional projects: North America, Central America, the Caribbean, the Andean Area, the Southern Cone and Amazon Basin, Non-Amazon Brazil and Guyanas, which in turn base their actions on the execution of programs at the international border level. Priority is given to promoting and supporting the various forms of social organization that can be incorporated into PHEFA's operations, resulting in joint venture participation by the public and private sectors in the implementation of projects for the eradication of foot-and-mouth disease in the countries of South America through Local Committees for the Eradication of Foot-and-mouth Disease.

6. Cooperation in the execution of programs for the prevention, elimination, and eradication of brucellosis, tuberculosis, and rabies places special emphasis on the coordination of actions between the health and agricultural sectors. Within this framework, cooperation promotes the strengthening of national and local zoonosis committees, that involve the different sectors and institutions responsible for local health and development.

### **Program Components**

7. PANAFTOSA has proposed a technical cooperation plan for the biennium 2004-2005 organized around six projects: (1) Technical Management; (2) Administrative Management; (3) Foot-and-mouth Disease; (4) Epidemiology; (5) Zoonoses; and (6) Reference Laboratories. The Zoonoses project includes three subprojects: Rabies, Brucellosis/Bovine Tuberculosis, and Hydatidosis.

#### ***Technical Management Project***

##### *Situation analysis*

8. This component is the articulating axis of PANAFTOSA cooperation policy and strategy, based on the strengthening and promotion of existing regional and subregional zoonosis and animal health programs and agreements. It relates closely to the search for and implementation of initiatives to strengthen the quality of health services in the countries by improving the technical quality of their human resources, in both the public and private sectors, in association with animal health and zoonosis policies.

9. The main emphasis of cooperation in this component relates to the promotion of social organization and participation, as well as the use of communication tools that facilitate access to and use of scientific-technical and technological knowledge, essential to improving the health and living conditions of the population.

##### *Objective*

10. Strengthening of regional, subregional, and national sanitary programs based on coordinated articulation and action, mobilization of resources, human resources education, dissemination of information, and social participation.

##### *Expected results*

11. **Design, formulation, implementation, and evaluation of technical cooperation projects and agreements** coordinated by PANAFTOSA and carried out with other national and international organizations and cooperation agencies, through the strategic

management of regional programs based on the principles of regionalization, international cooperation, and social participation.

12. **Strengthening of national services** through processes to improve the organization and quality management of veterinary care services, based on international standards and regulations.

13. **Contribution to the training of human resources** in Veterinary Public Health at the regional and subregional level.

14. **Maintenance and strengthening of the integration and strategic partnership** of PANAFTOSA with national and international organizations and cooperation agencies.

15. **Technology resources:** Consideration is given to the supply and transfer of information technology resources to the countries that enhance and modernize the processes of technical and administrative management of their official animal health and zoonosis programs, through the development and promotion of communication and information systems adhering to modern technical standards, and the supply of services derived from the development and implementation of the Virtual Library on Animal Health and Zoonoses for the Region.

### ***Administrative Management Project***

#### *Situation analysis*

16. This project is conceived as a fundamental axis of support for an efficient cooperation process, that bases its execution on the continuous modernization of the administrative and financial management systems of PANAFTOSA. This includes the ongoing and continuous training and updating of knowledge of the Center's technical and administrative personnel in the aforementioned areas.

#### *Objective*

17. Maintenance of a modern and efficient model of administrative and financial management that facilitates the execution of PANAFTOSA's technical cooperation process.

#### *Expected results*

18. Employment and allocation of human, budgetary, and logistical resources as indicated in the work strategies defined in cooperation projects.

19. Strengthening and/or implementation of modern systems of administrative-financial control necessary for the adequate management of technical cooperation.

20. Administration of the staff development and training process at PANAFTOSA to ensure a functional organization that will permit full attainment of the objectives and goals of cooperation projects.

21. Coordination of administrative-financing actions for the maintenance and remodeling of PANAFTOSA facilities and the construction of the biosafety laboratory.

### ***Foot-and-mouth Disease Project***

#### *Situation analysis*

22. The favorable epidemiological situation of the 1990s began to change in the second semester of 2000, with the emergence of outbreaks in Argentina, Brazil, and Uruguay.

23. As an illustration of the damage caused, the economic losses for Argentina and Uruguay alone are estimated at more than one billion dollars, not even including the indirect losses involved. This economic and social impact has forced the health services to reexamine their action strategies to ensure that they maintain the status of disease-free with or without vaccination achieved by the National Eradication Programs.

24. Determining factors in the reintroduction of Foot-and-mouth Disease in the subregion of the Southern Cone are the institutional and financial weakening of Public Sanitary Programs; the weakening of bi- or multinational border sanitary programs; and the dynamic of the international trade of animals and animal products, that increased the risk of introduction and dissemination of the disease.

25. To overcome this situation and strengthen the subregional program, the ministers of agriculture of the Southern Cone have conferred on PANAFTOSA a very active supporting role in international coordination, including auditing of the health situation, the quality of national programs, and the health policies implemented to enhance prevention and control.

#### *Objective*

26. That the member countries maintain and expand their disease-free areas and strengthen their systems to prevent the introduction of foot-and-mouth disease by implementing the following fundamental axes of action, particularly to achieve the

eradication of foot-and-mouth disease in South America by the year 2009 and prevent the reintroduction of the disease in North America, Central America, and the Caribbean.

*Expected results*

27. **Formulation of projects:** Cooperation with the national programs of South American countries free of foot-and-mouth disease in the formulation and implementation of prevention components and in the evaluation of bi- or multinational border projects.
28. **Development of surveillance and epidemiological emergency systems,** through support for countries with a clinical absence of foot-and-mouth disease in the conducting of seroepidemiological studies that demonstrate the absence of viral activity; and strengthening of the Hemispheric Surveillance System, expanding its coverage and international connections with other systems and the capacity to respond to emergencies with regional impact in the context of the River Plate Basin Project.
29. **Regional harmonization** through the development and implementation of processes for the auditing of veterinary care facilities and processes of eradication and prevention; promotion and establishment of a new regional approach to the coordination of PHEFA's multinational activities.
30. **Training:** particularly with regard to foci of foot-and-mouth disease, sanitary emergencies, and management of national programs.
31. **Biosafety:** Promote compliance with the recommendations made by auditing delegations to improve biosafety conditions at the public and private laboratories that handle the foot-and-mouth disease virus in South America.

*Epidemiology Project*

*Situation analysis*

32. The progress achieved in eradicating the disease poses new challenges that necessitate the strengthening of systems of surveillance, information, and analysis to permit the incorporation of elements that make it possible to evaluate the vulnerability and receptivity of livestock space and report in a timely manner on the tasks of primary and secondary prevention of foot-and-mouth disease.
33. Within this framework, emphasis is placed on methodological formulation and implementation in the evaluation of risks derived from the aforementioned situations, implementation of active surveillance procedures, and strengthening of passive

mechanisms, as well as adaptation to the new diagnostic techniques available and needs in terms of differential diagnosis.

34. On the other hand, the incorporation of zoonoses into the technical mission of PANAFTOSA implies the incorporation, adaptation, or generation of data collection and epidemiological analysis, based on the characteristics that will allow the necessary knowledge concerning the patterns of each of them to be able to establish or evaluate intervention strategies.

#### *Objective*

35. Strengthening of the national systems of surveillance, epidemiological analysis, and risk assessment.

#### *Expected results*

36. Implementation of the Internet versions of Information and Surveillance Systems for Vesicular Diseases, Nervous Diseases, and Red Diseases of Pigs.

37. Implementation of the information and surveillance system for zoonoses.

38. Enhancement of the capacity of the countries for epidemiological and risk analysis.

39. Development of active epidemiological surveillance models.

#### ***Zoonoses Project***

40. This programming component seeks, in coordination with the Program on Veterinary Public Health, to promote the definition and execution of intersectoral and interinstitutional policies geared to the elimination and/or eradication of zoonotic diseases, including emerging and reemerging diseases with an impact on health and the local, national, or regional economy. To this end, the following cooperation subprojects have been defined:

##### Rabies Subproject

#### *Situation analysis*

41. The Program for the Elimination of Human Rabies Transmitted by Dogs in the Americas has achieved significant progress since its inception in 1983, making it possible to presume the elimination of cases of human rabies transmitted by dogs, the principal



source of infection, by the year 2005. In 2001, the countries reported 60 cases of human rabies to SIRVERA, representing a reduction of 7.7% with respect to the previous year and of 59.7% compared with the average over the last 10 years.

42. The reduction of human rabies shows a close correlation to the reduction of canine rabies. The 1,652 rabies-positive dogs registered in 2001 represent a reduction of 21.2% with respect to the previous year and of 68.3% with respect to the average number of cases reported in the decade 1991-2000.

43. From 7 to 9 October 2002, the IX Meeting of Directors of National Rabies Control Programs of the Americas (REDIPRA) was held in Santa Cruz de la Sierra, Bolivia, to analyze the progress of the strategic plan for the elimination of human rabies transmitted by dogs in Latin America, assess the current status of the various components of the regional plan of action, and define the technical cooperation strategies and activities to formulate the plan of operations for the biennium 2003-2004.

#### *Objective*

44. Strengthening of National Programs for the elimination of human rabies transmitted by dogs in the Americas and for the epidemiological monitoring and control of sylvatic rabies.

#### *Expected results*

45. **Harmonization of national programs:** Through standardization of the use of immunobiologicals for pre- and post-exposure treatment and quality control of the vaccines utilized; and use of evaluations external to the national programs and the laboratories that produce rabies vaccines.

46. **Strengthening of surveillance:** Through review and adjustment of the Regional Epidemiological Surveillance System for Rabies in the Americas–SIRVERA and support for the countries in the establishment of databases, through the production and distribution of the software “System of management and data analysis applied to rabies,” and expansion and strengthening of the surveillance systems for rabies, particularly sylvatic rabies.

47. **Promotion of training:** Through the promotion of human resources training and community participation in association with the Program for the Elimination of Rabies in the Americas.

48. **Strengthening of laboratory services:** Through the establishment and implementation of the Regional Reference Laboratory System for Rabies.

Brucellosis/Bovine Tuberculosis Subproject

*Situation analysis: Brucellosis*

49. The epidemiological situation has not changed substantively with respect to previous periods. Progress has been achieved in the strategies of control/elimination, particularly in the subregion of Central America and the Dominican Republic, where subregional coordination was strengthened during the meeting of animal health directors convened by PAHO/ PANAFTOSA and OIRSA in El Salvador in June 2001, and in South America, where the countries of the Southern Cone held workshops and made significant progress in the selection of common strategies for the struggle against the disease and to standardize procedures for a subregional program; Chile is in the final phase of eradication and Brazil and Bolivia launched their national programs in 2001 and 2002, respectively. In Ecuador, the SESA agreed to structure the national project around zonal subprojects.

*Situation analysis: Bovine tuberculosis*

50. The epidemiological situation of bovine tuberculosis also has not changed substantively. With regard to program status, it should be noted that in Central America, activities are being conducted only in modernized areas and cattle farms. In the Dominican Republic, strategies have been carried out to accelerate the process of eliminating brucellosis in a period of four years. In South America in 2001 and 2002, Brazil, Bolivia, Colombia, Ecuador, and Venezuela prepared or reformulated their projects with PANAFTOSA cooperation, increasing to 10 the number of countries conducting projects for disease-free certification. In 2001 and 2002, the national program coordinators of the Southern Cone proposed the creation of a regional strategy to transform the affected zones into areas that can be designated officially disease-free.

51. In November 2002, PANAFTOSA initiated the production of a bovine P.P.D. standard to enable the national official control laboratories to test the potency of their outputs. The bovine P.P.D. standard will be available in April 2003. In addition, during 2003 the service of external control of the national lots will be restored in a laboratory of the associated network.

*Objective*

52. Promotion and support for the countries of the Americas in the formulation of brucellosis/tuberculosis projects and the process of monitoring and evaluation.

*Expected results*

53. Implementation of the Integrated Hemispheric Information System on Brucellosis and Tuberculosis.
54. Dissemination to the countries of periodic information on the situation of brucellosis in the Region.
55. Incorporation of the standard for antigen production and diagnosis of brucellosis and tuberculosis into the regional reference laboratory system on zoonoses.
56. Review and formulation of standards and guidelines on brucellosis and bovine tuberculosis for the countries of the Region.
57. Training of human resources in the management and diagnostic methods of brucellosis/bovine tuberculosis programs.

Hydatidosis

*Situation analysis*

58. The greatest efforts in the prevention, control, and elimination of hydatidosis by *Echinococcus granulosus* are being made in the countries of the Southern Cone, where the largest ovine population, intermediary host of hydatidosis, is concentrated.
59. In 2001, PANAFTOSA convened a working meeting of representatives from the hydatidosis programs of the Southern Cone, and as follow-up to the resolutions adopted, is coordinating the formulation and implementation of an Action Plan for the Elimination of Hydatidosis Transmitted by Dogs in the countries of South America.

*Objective*

60. Promotion in the countries of the formulation and execution of subregional, national, and/or local plans for the prevention and control of parasitic zoonoses, that impact on the most vulnerable groups of the population.

*Expected results*

61. Review and update of the Action Plan for the Elimination of Cystic Hydatidosis in the countries of the Southern Cone.

62. Improvement of the information and epidemiological surveillance systems for hydatidosis in South America.

63. Integration of the reference laboratory for this zoonosis with the regional laboratory system in operation for other zoonoses.

### ***Laboratory Project***

#### *Situation analysis*

64. The epidemiological context of foot-and-mouth disease described above, particularly with reference to emergencies in disease-free areas or countries, makes clear the need for strengthening the methods of detection and characterization of the foot-and-mouth disease virus (VFA), with its differentiation from other easily-confused diseases, as well as the diagnostic approaches to monitoring viral activity.

65. In this area, the intention is to continue with the development, implementation, and transfer to the countries of new methodological approaches that have greater diagnostic precision, including tools for characterizing epidemiological situation, risk, and endemicity, as detailed below.

#### *Objective*

66. Strengthening of the national functions of diagnosis and control of biologicals for vesicular diseases, diseases easily confused with them, zoonoses, and emerging or re-emerging diseases that impact on public health and/or the national economy.

#### *Expected results*

67. Definition of processes for guaranteeing quality in the diagnosis of vesicular diseases and diseases easily confused with them and other zoonoses.

68. Development, international validation, and transfer to the countries of diagnostic tools for characterizing the epidemiological situation, risk, and endemicity of foot-and-mouth disease.

69. Serological and immunological characterization of the strains present in the field and development of methods, models, and technologies to enhance the primary diagnostic procedures for vesicular diseases.

70. Development and transfer to the countries of technologies to enhance the quality, effectiveness, and efficiency of diagnostic procedures and their corresponding interpretations for diseases easily confused with vesicular and zoonotic diseases.

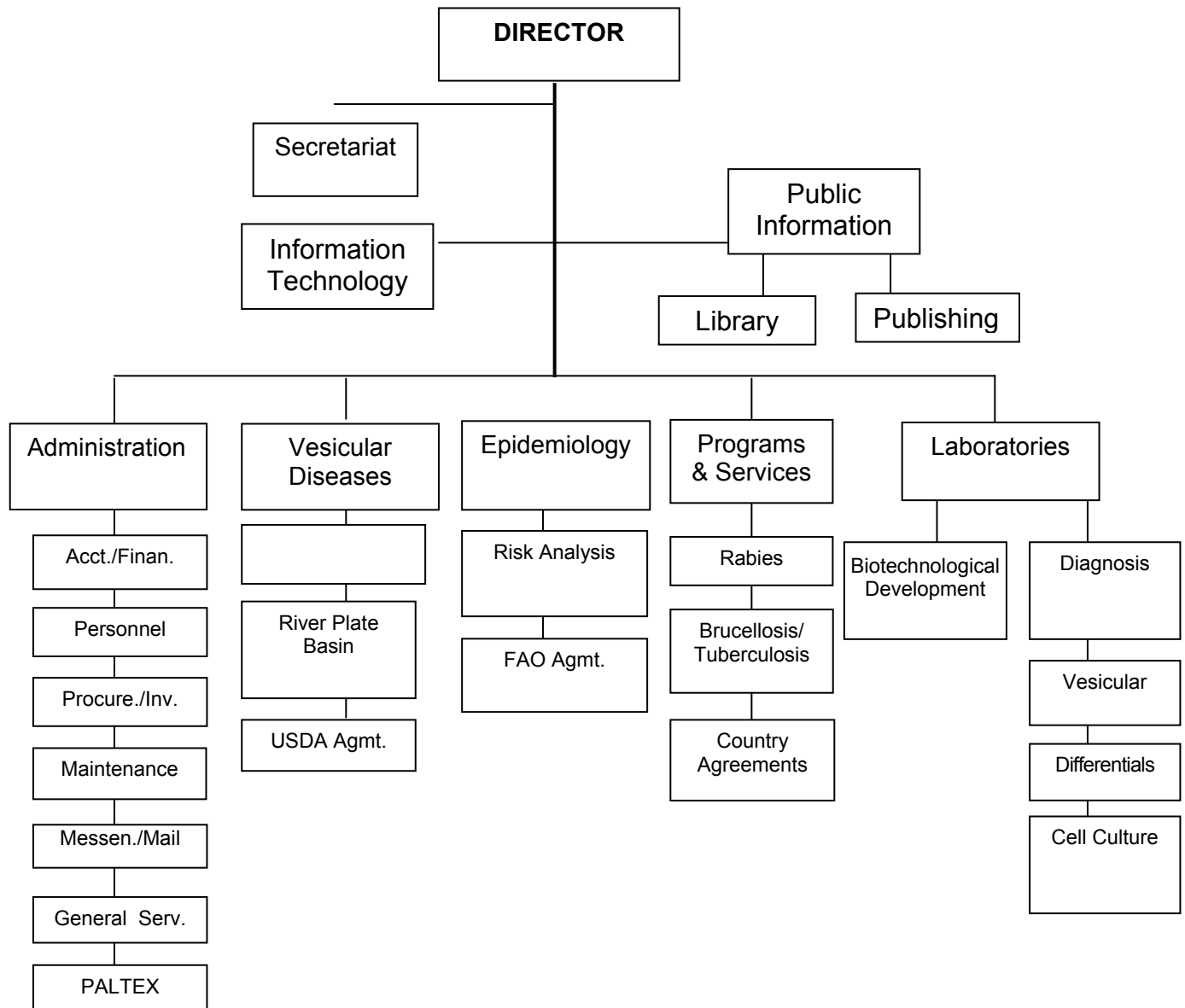
71. Development and implementation of biomolecular tools for the detection and characterization of vesicular diseases and diseases easily confused with them.

72. Support for national and regional programs for the control and eradication of foot-and-mouth disease and programs for the control of vesicular disease and other zoonoses, through the production, standardization, and supply of reagents and complete kits for diagnosis.

73. Development of methods for estimating the quality and potency of immunogens for foot-and-mouth disease.

Annexes

**ORGANIZATIONAL CHART OF PANAF-TOSA/PAHO**



**PANAFTOSA Personnel, according to type of contract - 2003**

<b>TYPE AND NUMBER OF PERSONNEL</b>	
<b>United Nations Contract</b>	
International staff: local headquarters	14
International staff stationed in Panama	1
National officer	1
USDA/APHIS Project	1
FAO Project	1
General Services	22
<i>Subtotal</i>	<i>40</i>
<b>Local Contract</b>	
National staff	7
National staff: PALTEX	1
Local personnel (CLT)	60
<i>Subtotal</i>	<i>68</i>
<b>TOTAL</b>	<b>108</b>

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