

### **3. Background**

#### **3.1. Introduction and Summary of Previous Recommendations**

The scenery of emerging infectious diseases has become a story of the fragile balance in the Americas. In spite of some progress, our current reality shows that some historic pre-visions and triumphalistic outlooks have exceeded themselves, views that talked about the ending of the transmissible disease chapter", of the "epidemiological transition", or of an exaggerated trust in the "magic bullets" that contributed to the control or eradication of some disease entities. This sends us to the complexity and dynamics of the biological, ecological, social and cultural phenomena of the genesis of the problematic of the emerging of infectious diseases and to the need to shared efforts to develop national, sub-regional and regional prevention and control programs.

In 1995, the PAHO's Regional Plan of Action was approved by the Directing Council of PAHO for combating new, emerging and re-emerging infectious diseases in the Americas. Two of the four goals addressed the need to 1) strengthen the regional surveillance networks for infectious diseases and 2) establish national and regional infrastructure for early warning of and rapid response to infectious disease threats through laboratory enhancement and multidisciplinary training programs.

Under the goal of strengthening regional surveillance, the objectives were to 1) enhance and integrate existing infectious disease surveillance networks in the Americas, 2) establish a regional steering committee for emerging infectious surveillance, and 3) develop uniform guidelines that link surveillance and reference diagnostic services.

The PAHO's Task Force on Surveillance of Emerging and Reemerging Diseases is comprised of experts from PAHO/WHO and member countries. At the second meeting of the Task Force during 1997 in Rio de Janeiro, a recommendation was made "to support an initiative on surveillance for emerging infectious disease in the Amazon Basin and to extend it to other subregions.

As specified in the goals of the Regional Plan and based on the recommendations of the Task Force, PAHO has supported 1) the preparation and publication of technical documents and guidelines, 2) training on diagnosis, prevention and control, 3) sub-regional meetings to prepare proposals for establishing surveillance systems, based on notification of specific and symptomatic diseases, 4) preparation of manuals to respond to outbreaks, 5) pilot tests for syndromic surveillance (in the context of the Meeting for International Health Regulations), and 6) configuration of Sub-Regional Networks of Public Health Laboratories (Southern Cone, Amazon Region). The strengthening of the public health laboratory networks is a very important step toward the nourishment of all three outlooks detailed above. In this context, the plans prepared to establish a Southern Cone surveillance network at the Buenos Aires meeting in April 1998 were utilized to produce the 1999-2000 plan of action. The specific aim of this plan is to establish a laboratory network for the surveillance of emerging infectious diseases in the greater Southern Cone Region. The key word for the execution of this plan is cooperation, or the capacity to work together, to consolidate strategic alliances, and to become closer partners for achieving the health goals.

### 3.2. Summary description of the participating institutions

#### ARGENTINA

The National Administration of Institutes and Health Laboratories (ANLIS) “Dr. Carlos G. Malbrán” was organized in 1996 to integrate public health laboratories existing in different parts of the country. The ANLIS Malbrán is made up by six National Institutes which are:

- -Acute Infectious Diseases, in the city of Buenos Aires (INEI)
- -Production of Biologicals, in the city of Buenos Aires (INPRO)
- “Dr. Juan H. Jara” Epidemiology, in Mar del Plata (INE)
- “Dr. Emilio Coni” Respiratory Diseases, in the city of Santa Fe (INER)
- “Dr. Mario Fatała Chabén” Parasitology, in the city of Buenos Aires (INP Fatała)
- “Dr. Julio Maiztegui” Human Viral Diseases, in Pergamino (INEVH)

and the National Centers of:

- Nutritional Research, in the city of Salta (ININ)
- Medical Genetics, in the city of Buenos Aires (INGEM)
- Quality Control of Biologicals, in the city of Buenos Aires (CENCAL)
- Diagnosis and Research of Endemoepidemics, in the city of Buenos Aires (CEDIE)
- Argentine Network of Health Laboratories, in the city of Buenos Aires (RELAS)

#### *Mission of the Malbrán ANLIS*

- To understand the scientific, technical, and implementation policy regarding the allocation of funds, and the promotion, approval, and evaluation of projects of the institutes and centers under its jurisdiction, in cooperation with units of the Ministry or the provinces and with other national or international organizations;
- To supervise the work of the National Health Reference Laboratory for the National Laboratory Network for the prevention, diagnosis, and treatment of nutritional, genetic, and microbial diseases, guaranteeing the quality of diagnosis in the country;
- To supervise the preparation and quality control of biologicals, research, and action taken with a view to improving these products or generating new ones; and
- To coordinate research on etiological agents, on genetic or nutritionally-based diseases, and their social and environmental consequences.

#### BOLIVIA

The Instituto Nacional de Laboratorios de Salud (INLASA) is the main institution for health laboratories in the country.. Founded in 1908, it is located in La Paz City. At present, the INLASA is the central unit of the Laboratory Network with emphasis on clinical diagnosis and the food, drug and beverage quality control. The Institute produces products such as anti-rabies vaccine for human and animal use, antigens for immunologic tests and cultures, and supplies reagents to all laboratories of the networks. It also supports all activities related to epidemiological surveillance, teaching, supervision, evaluation and counseling on technical and administrative organization for different health services departments. One of the important issues is the applied research, which leads to a better knowledge of the relevant pathogens in

Bolivia. The laboratory system under INLASA is organized in Laboratories Networks for cholera, TB, HIV, and food and beverages.

## BRAZIL

The Coordination of Public Health Laboratories (COLAB) was given responsibility for defining and coordinating the Laboratory networks by disease and health problems, carrying out existing activities within a new framework based on modern management concepts, strengthening the information network, and modernizing the laboratory infrastructure by instituting the appropriate biosafety measures. This public health laboratory network system is made up of National Reference Centers (CRN) which deals with specific diseases; state (LACEN) public health laboratories, municipal (local) laboratories (LM), and other components of the system.

### *Adolfo Lutz Institute*

The Adolfo Lutz Institute (IAL) is the public health laboratory of the State of São Paulo and a component of the National System. Today, it has 900 staff members and is maintained by the state government. Its mission is to work jointly in epidemiological and health surveillance for disease prevention and health promotion. It also conducts technological scientific research activities. The IAL performs the diagnosis of the following emerging and re-emerging: dengue, yellow fever, hantavirus, arbovirus in general, influenza, reickettsiosis, leishmaniasis, measles, hepatitis, typhoid fever, parvovirus and arenaviruses.

### *Oswaldo Cruz (FIOCRUZ) Foundation*

This is a public foundation directly linked to the Ministry of Health of Brazil. Located in Rio de Janeiro, it is comprised of 11 Technical Units that carry out different activities. It also has three Regional Research Centers in Recife/Pernambuco, Belo Horizonte/Minas Gerais, and Salvador/Bahía. Its mission centers on three principal areas: a) biomedical research and education in public health; b) technology development and production in the area of immunobiologicals, drugs and medications, in addition to national quality control work, and; c) two research and services hospitals specializing in maternal and child health and infectious diseases. It has 3,500 full-time employees, more than 500 of whom have doctorates, in addition to 3,500 other part-time employees and graduate students. In the 11 Technical Units, there are more than 20 reference centers and/or PAHO/WHO Collaborating Centers.

## CHILE

The Institute of Public Health (ISP) is directly under the Ministry of Health, is autonomous and financially independent, having its own budget. The mission of the ISP is to contribute to an improvement in the health of population as a whole, guaranteeing the quality of the public health products under its purview, becoming a National Reference and Certification Center,

and producing products and services with transparency, responsibility, an attitude of service to the user, quality management, technical expertise, and vision in terms of the future. The functions of the Department of Health Laboratories include: 1. Central Coordination of the National Network of Laboratories; 2. Laboratory surveillance of infectious diseases (it has a laboratory with BSL-3 biosafety); 3. Research and development of diagnostic techniques and their technological transfer to the country's laboratories; 4. Program for External Evaluation of the Quality of Clinical Laboratories; 5. To conduct examinations relating to: Clinical Bacteriology, Serology of Syphilis, Mycobacteria, Virology, Immunology, Histocompatibility, Hematology, Parasitology, and Clinical Chemistry; 6. To produce guidelines and standards to guide the practice of clinical laboratories in Chile.

#### PARAGUAY

The mission of the Research Institute in Health Sciences (IICS), National University of Asunción is to generate, carry out, and promote scientific research in the Health Sciences, with the contribution of knowledge and solutions to the relevant problems of the country, with the human resource training and development of specialized services to improve the community health. The IICS was established to identify factors in the country that affect health and to apply technology suited to the national situation.

#### URUGUAY

The Public Hygiene Laboratory began in 1977, and its mission was to perform the centralized diagnosis of syphilis. From there, gradual decentralization of diagnosis began, together with the development of a national reference center with functions related to standardization, supervision of network laboratories, and diagnostic referencing.

In recent years, applied research responsibilities have emerged in priority health areas, such as respiratory viruses, hepatitis, AIDS, resistance to antibiotics, Chagas' disease and others, with the National Reference Centers operating in conjunction with the Service.