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**EVALUATION OF THE STRATEGIC
AND PROGRAMMATIC ORIENTATIONS 1999-2002**

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1. Introduction

Resolution CSP25.R4 of the 25th Pan American Sanitary Conference adopted the Strategic and Programmatic Orientations (SPO) 1999-2002 and requested the Director of the Pan American Health Organization (PAHO) to apply them and evaluate the impact of technical cooperation, utilizing them as a frame of reference.

The Bureau conducted a mid-term evaluation in 2001 and, based on that experience, crafted an approach for the final evaluation. This approach was presented to the Subcommittee on Planning and Programming in March 2002, whose delegates made recommendations for its improvement. The results of this mid-term evaluation were also considered during the preparation of the proposal for the Strategic Plan 2003-2007. A new report was subsequently submitted to the 130th Session of the Executive Committee in June 2002. The comments and modifications suggested in that session have been taken in account in this new version.

Pursuant to the mandate of the Conference, the purpose of this document is to report to the 26th Pan American Sanitary Conference on the progress made in meeting the Regional Goals and applying the Programmatic Orientations, indicating to what extent the countries took the SPO into account when formulating their national health plans or policies for 1999-2002.

2. Strategic and Programmatic Orientations 1999-2002

Since 1986, the Organization has been adopting framework documents containing quadrennial policy orientations. In 1998, the 25th Pan American Sanitary Conference adopted the Strategic and Programmatic Orientations (SPO) 1999-2002 after an analysis of the situation and needs of the countries of the Region of the Americas. The SPO were not only the Pan American Sanitary Bureau's (PASB) response to the new global policy of Health for All in the 21st Century (HFA21) and the General Program of Work (GPW) of the World Health Organization (WHO), but a commitment to achieving the global goal of Health for All (HFA).

2.1 *Regional Goals*

The SPO identified 29 regional goals, which represent the joint commitment of the countries and the Bureau to improving the health of the Region's peoples.

These goals were divided into three groups. The first was devoted to health outcomes:

- Life expectancy at birth will increase by at least two years in all countries that in 1998 have a life expectancy of less than 70 years;
- In all the countries, the infant mortality rate will decrease by 10%;
- Perinatal mortality will decrease by 20%;
- Late neonatal mortality will decrease by 30%;
- Child mortality will decrease by 40% and will be under 50 per 1,000 live births;
- Maternal mortality will decrease by 25%;
- At least 60% of women aged 15 to 44 will have access to contraceptives;
- In all the countries, less than 20% of children under 5 years of age will suffer from growth retardation;
- Less than 10% of newborns will weigh under 2,500g at birth;
- Iodine deficiency disorders will have been eliminated;
- The prevalence of subclinical vitamin A deficiency in children under 5 years of age will be under 10%;
- The prevalence of iron deficiency in women aged 15 to 44 and pregnant women will have decreased by 30%;
- Elimination of wild poliovirus transmission will be maintained;
- Measles transmission will have been eliminated in all the countries;
- The incidence of neonatal tetanus will be under 1 per 1,000 live births at the local level (municipal, cantonal, etc);
- The prevalence of leprosy will be less than 1 per 10,000 population;
- The prevalence of endemic caries will be reduced by 50%;
- Human rabies transmitted by dogs will have been eliminated;

- Transmission of Chagas' disease by *Triatoma infestans* will have been eliminated in all the Southern Cone countries;
- Foot-and-mouth disease will have been eliminated in all the Southern Cone countries.

The second group refers to intersectoral actions centered on health determinants:

- In all the countries, at least 80% of the population will have adequate wastewater and excreta disposal services;
- At least 75% of the population will have access to drinking water, and in countries that in 1998 had more than 75% access, coverage will increase by 10%.

The third group deals with health policies and health systems:

- All the countries will have adopted policies to promote Health for All and equitable access to good quality health services;
- All blood for transfusion will be screened for hepatitis B and C, syphilis, *Trypanosoma cruzi*, and HIV;
- All blood banks will be participating in quality control programs;
- All the countries will have adopted policies to prevent tobacco use by children and adolescents;
- All the countries will have a health information system that furnishes basic health data that meet validity and reliability criteria;
- As a result of coordination with the pertinent entities, unregistered deaths will be under 20%;
- Less than 10% of registered deaths will be classified under "ill-defined causes."

2.2 Programmatic Orientations

In order to meet these targets, the 25th Pan American Sanitary Conference requested the Director to program technical cooperation that would adhere to the SPO and asked the countries to take them into account when formulating their national health policies.

Five Strategic Orientations were established to guide the programming of the Bureau's technical cooperation: Health in Human Development, Health Promotion and Protection, Environmental Protection and Development, Health Systems and Services Development, and Disease Prevention and Control. In addition to the Strategic Orientations, Programmatic Orientations were defined in which the Bureau assumed responsibility for providing particular technical cooperation.

At the same time, the Director was asked to assess the impact of cooperation, using the SPO as the basic frame of reference, and to report his findings to the Governing Bodies.

3. Mid-term Evaluation of the Strategic and Programmatic Orientations 1999-2002

In order to comply with this request by the Conference, provide input for the planning process, and contribute to the development of the Strategic Plan 2003-2007, the Bureau conducted a mid-term evaluation of the SPO from April to June 2001. The procedure employed and the main findings were submitted to the Subcommittee on Planning and Programming so that they could be used in analyzing the methodology proposed for the final evaluation of the SPO.

The mid-term evaluation of the SPO revealed that, in the technical sphere, 87% of the professionals surveyed were familiar with the SPO, all of them utilized them in their work, and 85% considered them guidelines for technical cooperation. However, only half of these professionals were knowledgeable about the process involved in their definition. Furthermore, it was found that about 90% of technical cooperation projects adhered to the Programmatic Orientations of the SPO.

The methodological possibilities of evaluating fulfillment of the Regional Goals of the SPO were reviewed, and it was found that several of them had already been met by June 2001. It also became evident that for the evaluation of some goals, alternatives to the Basic Indicators published by the Bureau would be needed and that in some cases, it would not be feasible to obtain the data required to determine the degree to which they had been met.

With the results of this mid-term evaluation and the suggestions of the delegates to the 36th Session of the SPP, the approach for the final evaluation of the SPO was developed. A new report was presented to the Executive Committee, whose delegates offered suggestions for its improvement. These were incorporated in the present version.

4. Evaluation of the Strategic and Programmatic Orientations 1999-2002

The 25th Pan American Sanitary Conference requested the Director not only to apply the SPO but to assess the impact of technical cooperation, using them as a frame of reference. What follows is the most accurate appraisal possible of the achievement of the Regional Goals, adherence to the Programmatic Orientations, and the degree to which the SPO influenced national health plans and policies.

This exercise is an opportunity for the Bureau to learn about the process involved in defining policy and planning orientations, as well as the programming and management of technical cooperation. Thus, the section that follows outlines a series of lessons for the Bureau, derived from the mid-term evaluation and the evaluation here presented.

4.1 *Progress in Achieving the Regional Goals*

For each regional goal and country in the Region, except the territories, the available data from the Bureau's regional system of Core Health Data were reviewed to contrast the situation of the respective goal in 1998 with that of the most recent year available, as close as possible to 2002. This would permit the identification of progress or delays in meeting the goals. In cases where the Core Data did not include the required data or where the necessary information was not in the database, a serious effort was made to find an alternative source.

Of the 29 regional goals adopted, five were fully met, 13 were partially met, and two showed little or no progress. Moreover, the information for nine of the goals is insufficient, unavailable, not up-to-date, or else the values obtained for the countries are not comparable because they correspond to different periods. Hence, their achievement cannot be evaluated.

4.1.1 *Life Expectancy at Birth*

Goal: *Life expectancy at birth will increase by at least two years in all the countries that in 1998 have a life expectancy of less than 70 years;*

Based on life expectancy estimates, all but one country in the Region (Grenada) with a life expectancy of less than 70 years increased its life expectancy over the evaluation period 1998-2002. The average increase in life expectancy over the period was 0.91 years for all countries. Saint Kitts and Nevis surpassed the goal of increasing life expectancy by two years, with an increase of 2.8 years from 1998 to 2002.

4.1.2 *Infant Mortality*

Goal: *In all the countries, the infant mortality rate will decrease by 10%.*

According to the rates estimated, all countries in the Region reduced infant mortality by 9% on average. Seven countries surpassed the goal by reducing it by 10% or more (Bolivia, Colombia, El Salvador, Panama, Peru, Trinidad and Tobago, and Uruguay). Meanwhile, three countries (Canada, Cuba, and the United States of America) had infant mortality rates in single digits in 1998, a situation that continues to the present day. This means that, in addition to representing a significant achievement for the population, any reduction, however small, implies a greater effort than for countries with higher rates. However, the rate also fell in these countries.

4.1.3 *Perinatal Mortality*

Goal: *Perinatal mortality will decrease by 20%.*

There is insufficient data on perinatal mortality rates in the Region to determine the degree to which the goal has been met. Underreporting of mid-gestational and late fetal mortality is high in the Region, and these data are essential for constructing the indicator. Thus, in practice, very few countries actually manage to estimate this rate. The latest available data for this goal are from 1997 for most countries, one year before the SPO were adopted, and there are no data for later periods that would allow for comparisons and detect changes in the majority of the countries.

4.1.4 *Late Neonatal Mortality*

Goal: *Late neonatal mortality will decrease by 30%.*

In most of the countries in the Region, there is substantial underreporting of mortality in the very early ages. For this reason, mortality rates are not routinely estimated, especially for population groups such as neonates (infants under 28 days), the group in which late neonatal mortality (infants 7 to 28 days of age) is found. The records compiled through the database of the Latin American Center for Perinatology and Human Development (CLAP) are from health facilities and do not provide a complete picture of the national situation. Records are available for only five countries, but even here, not for the same years. Thus, there is insufficient data on late neonatal mortality rates in the Region to determine the degree to which the goal has been met.

4.1.5 *Mortality in Children Under 5 Years of Age*

Goal: *Child mortality will decrease by 40% and will be under 50 per 1,000 live births.*

Only seven countries had rates of higher than 50 per 1,000 live births at the beginning of the period. According to estimates, all countries in the Region reduced child mortality by an average of 3.7 per 1,000 live births, or approximately 9.5% on average. With respect to the established goal of reducing the rate by 40% during the period, 18 countries reduced it between 2.9% and 10%, nine countries between 10% and 15%, and only one, Uruguay, came close to meeting half of the figure set for the goal, with a 19.5% reduction. Of the seven countries with child mortality rates in excess of 50 per 1,000 live births in 1998, none met the goal of reducing this rate to 50 per 1,000 live births.

4.1.6 *Maternal Mortality*

Goal: *Maternal mortality will decrease by 25%.*

The data on maternal mortality in the Region are incomplete, there are enormous disparities in the years of the data or the estimates of the rates, and in many countries the data cannot be used for comparison purposes. Sixteen countries have maternal mortality data for 1998 and nine have figures predating that year. The data for later years only go as far as 2000 in seven countries and 1999 in 10. Only four countries have data for both 1998 and 2000. Although the available data indicate a general downward trend in maternal mortality rates for some countries, with an overall regional rate of 190 maternal deaths per 100,000 live births, progress in this area has generally been minimal. Some countries still present high maternal mortality rates, and major disparities continue to exist both among and within countries in the Region.

4.1.7 *Access to Contraceptives*

Goal: *At least 60% of women aged 15 to 44 will have access to contraceptives.*

There is insufficient data to determine whether this goal has been met. Although a complete series is available for 1994, most recent data for this goal are from 1998 in six countries. In cases where data are available for 2000 (two countries), the prevalence rate for contraceptive use corresponds to women between the ages of 15 and 49 in a couple's relationship and are not necessarily comparable with the earlier data covering all women.

4.1.8 *Growth Retardation*

Goal: *In all the countries, less than 20% of children under 5 will suffer from growth retardation.*

The available data is insufficient to evaluate the achievement of this goal. Data from studies of children 3 years of age in 10 countries indicate a general decline in stunting in this age group. However, these data are insufficient to determine whether the goal has been met, since in addition to representing very few countries, the time periods covered by the studies vary, beginning as early as 1978 in some cases and extending as far as 1999 in others. One country (El Salvador) reported a slight increase in stunting. The United Nations Children's Fund (UNICEF) provides data for the last available year ending between 1994 and 2000. Only two countries (Cuba and the Dominican Republic) have data for 2000.

4.1.9 *Low Birthweight*

Goal: *Less than 10% of newborns will weigh less than 2,500g at birth.*

There is insufficient information to evaluate the achievement of the regional goal, as there is no data to compare with the most recent data available. Thirteen countries have data between 1998 and previous years (1994). However, the 10 countries that have later data corresponding to 1998 or 2000 have no earlier data with which to make comparisons. All cases have only a single observation datum.

4.1.10 *Iodine Deficiency*

Goal: *Iodine deficiency disorders will have been eliminated.*

There is insufficient data for the Region to report on the achievement of the Regional Goal. The available data on iodine deficiency are for years prior to 1998 and correspond to nine countries. There are no subsequent data for these same countries.

However, information on the iodization of salt can be indicative of potential changes in iodine deficiency in the countries. Twenty-six countries have salt fortification programs, nine of which require some improvement; however, some countries still have areas in which iodized salt remains unavailable, and others in which the salt iodization is inadequate. Furthermore, countries report on iodine deficiency in areas where it has been historically present in the form of endemic goiter and, hence, do not provide a representative sample of the Region¹.

¹ PAHO/WHO, *Health in the Americas, 1998 Edition*, Volume 1, p. 156, Washington, D.C.

4.1.11 *Vitamin A Deficiency*

Goal: *The prevalence of subclinical vitamin A deficiency in children under 5 will be under 10%.*

There is insufficient data to determine the degree to which the Regional Goal for the evaluation period has been met. The most recent data include: levels of Vitamin A supplementation for selected countries in the Region; the impact of fortification programs for periods between 1965 and 1996; and serum retinol surveys between 1991 and 2000. Hence, the data is not comparable over the evaluation period.

4.1.12 *Iron Deficiency in Women of Reproductive Age and Pregnant Women*

Goal: *The prevalence of iron deficiency in women aged 15 to 44 and pregnant women will have decreased by 30%.*

The latest available data for 19 countries correspond to 1998, and there are no subsequent data to determine whether the Regional goal has been met. The greatest difficulty in obtaining this information stems from the fact that the common sources of these data are research studies, which do not always have the same coverage or are based on estimates from local studies.

4.1.13 *Poliomyelitis*

Goal: *Elimination of wild poliovirus transmission will be maintained.*

In 1994, the International Commission for the Certification of Poliomyelitis (ICCPE) declared that transmission of wild poliovirus had been interrupted in the Americas. Between 2000-2001, there was a total of 13 and 8 cases attributable to a vaccine-derived poliovirus type 1 in the Dominican Republic and Haiti, respectively, in areas with very low coverage. Following intense vaccination efforts with oral polio vaccine, the last reported cases of poliomyelitis from vaccine-derived poliovirus were on 29 January 2001 in the Dominican Republic, and on 12 July 2001 in Haiti. Since then, no cases attributable to wild poliovirus have been reported.

4.1.14 *Measles*

Goal: *Measles transmission will have been eliminated in all the countries.*

As of April 2002, only Venezuela has indigenous measles transmission in the Americas. Significant efforts to control this outbreak are expected to interrupt transmission of the measles virus by the second semester of 2002.

4.1.15 *Neonatal Tetanus*

Goal: *The incidence of neonatal tetanus will be below 1 per 1,000 live births at the district level (municipal, cantonal, etc.).*

Since the intensification of vaccination efforts in 1988 among women of childbearing age in the Americas, there has been a 92% decline in reported cases of neonatal tetanus. A comparison of neonatal tetanus cases reported in 1998 and 2000 indicates that there has been a 25% decline—from 199 cases in 1998 to 149 in 2000. The number of cases dropped further in 2001, to 53².

According to country reports, the reported number of districts with more than 1 case per 1,000 live births has fallen from 30 in 1998 to 23 in 2000.

4.1.16 *Leprosy*

Goal: *The prevalence of leprosy will be less than 1 per 10,000 population.*

Based on data from the year 2000, the subregional prevalence of leprosy in South America is still 1.4/10,000 inhabitants, due essentially to the data from Brazil (3.53/10,000) and Paraguay (1.24/10,000). These are the two countries of the Region that have not achieved the target prevalence. According to the available information, 12 countries in which leprosy was a public health problem in 1992 have managed to eliminate this disease.

4.1.17 *Caries*

Goal: *The prevalence of endemic caries will be reduced by 50%.*

Data on the prevalence of dental caries is estimated over approximately 10-year periods and cannot be measured over the evaluation period. However, for the period from

² As of week 26, Division of Vaccines and Immunization, PAHO.

1977 to 2000, eight countries have reduced dental caries by 50% or more.³ The average reduction over this period for all countries was approximately 48.25%.

4.1.18 *Human Rabies*

Goal: *Human rabies transmitted by dogs will have been eliminated.*

Between 1998 and 2000, there was a 28% reduction in cases of human rabies, down from 89 cases in 1998 to 64 cases in 2000. Meanwhile, by 2001 the number of cases had dropped 45% since 1998, to 49 cases in nine countries of the Region⁴. In these last two years, 50% and 56%, respectively, have been attributed to transmission by dogs, and the remaining cases to other animals. By the year 2000, human rabies had been eliminated in 19 of the 21 capital cities of Latin America.

4.1.19 *Chagas' Disease*

Goal: *Transmission of Chagas' disease by *Triatoma infestans* will have been eliminated in all the Southern Cone countries.*

Out of the five Southern Cone countries, the South of Brazil, Chile and Uruguay, have achieved the level of vectorial transmission interruption in the Region. Argentina and Paraguay have not yet achieved interruption⁵.

4.1.20 *Foot-and-Mouth Disease*

Goal: *Foot-and-mouth disease will have been eliminated from all the Southern Cone countries.*

All Southern Cone countries achieved internationally recognized disease-free status between 1997 and 2000. However, in the second half of 2000, outbreaks occurred in Brazil and Uruguay, where the cases have been effectively controlled, and in Argentina, where the cases are in the process of being controlled.

³ The dates of the data vary from country to country during this period.

⁴ PAHO. Report of the Program on Veterinary Public Health on Compliance with the Strategic and Programmatic Orientations (SPO), 1999-2002. Document (RIMSA12/13, p.13) presented to the 12th Inter-American Meeting, at the Ministerial Level, on Health and Agriculture, São Paulo, Brazil 2-4 May 2001. This data is preliminary and is pending confirmation.

⁵ PAHO, Program on Communicable Diseases, Division of Disease Prevention and Control.

4.1.21 *Basic Sanitation*

Goal: *In all the countries, at least 80% of the total population will have adequate wastewater and excreta disposal services.*

The latest available data collected in the Region is from 1998. However, based on the Regional trends of the past 40 years, estimates show that by 2000, approximately 79% of the population of the Americas had adequate access to sanitation services, and coverage most likely surpassed the 80% mark at the close of 2002⁶.

While this is a major achievement for the Region, the urban-rural disparities remain significant. The percentage of the rural population without adequate access to sanitation (50.4%) is about five times higher than for the urban population (10.2%) in Latin America and the Caribbean⁷.

4.1.22 *Drinking Water*

Goal: *At least 75% of the total population will have access to drinking water.*

Goal: *In countries that in 1998 had more than 75% access, coverage will increase by 10%.*

The latest available data collected for the Region is from 1998. However, based on the regional trends over the past 40 years, estimates indicate that since the year 2000, approximately 85% of the population of the Americas has had adequate access to drinking water services. While this is a significant achievement for the Region, it must be noted that the percentage of the rural population without adequate access to safe drinking water (38.8%) is more than five times higher than for the urban population (7%) in Latin America and the Caribbean. It is estimated that countries with 75% access by 1998 did not increase coverage by 10%. However, they did increase coverage by a more realistic biennial goal of 2 to 3%⁸.

⁶ PAHO, Division of Health and the Environment, Regional Report on the Evaluation 2000 in the Region of the Americas: Water Supply and Sanitation Current Status and Prospects.

⁷ PAHO, document CD43/10, Health, Drinking Water, and Sanitation in Sustainable Human Development, 2001.

⁸ PAHO, Division of Health and Environment, BPB 2000-2001 Evaluation. The goal was adjusted in the 2000-2001 biennium to an increase of approximately 2% per biennium, or 3% to 4% for the four-year period, as 10% was considered an unrealistic estimate.

4.1.23 *Health for All and Equitable Access to Quality Health Services*

Goal: *All the countries will have adopted policies to promote Health for All and equitable access to good quality health services.*

By the year 2001, 22 countries had adopted specific policies or laws promoting Health for All and/or universal access to health, and 24 had adopted policies or laws promoting equitable access to quality services. Two countries that did not have explicit policies or laws promoting Health for All made a commitment, outlined objectives, or implemented programs related to extending health to the entire population. Six countries that did not adopt policies for equitable access made a commitment, outlined objectives, or implemented programs to increase equity in access to health services.

4.1.24 *Blood Transfusion*

Goal: *All blood for transfusion will be screened for hepatitis B and C, syphilis, Trypanosoma cruzi, and HIV.*

As of the year 2000, five countries in Latin America reported 100% screening for HIV, hepatitis B and C, syphilis, and *Trypanosoma cruzi*, versus three countries in 1998. Six of the Caribbean Member States and nine of all Caribbean countries reported 100% screening for HIV, hepatitis B and C, and syphilis in 2000⁹, as did Canada and the United States. Twelve other countries in the Region screen for all applicable infections, but have not yet reached the 100% mark¹⁰.

Goal: *All blood banks will be participating in quality control programs.*

As of 2001, 17 countries in the Region were participating in quality control programs for both transfusion-transmitted diseases and immunohematology. Four countries in the Region participated in one of the two quality control programs (Brazil, Costa Rica, Cuba, and Mexico)¹¹.

⁹ Screening for *Trypanosoma cruzi* is not required for this region.

¹⁰ Argentina, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, and Paraguay

¹¹ PAHO, Laboratory and Blood Services: Quality control programs for the Caribbean countries were started in 2002, and reliable data is not yet available.

4.1.25 Tobacco Use

Goal: *All the countries will have adopted policies to prevent tobacco use by children and adolescents.*

Many countries in the Region have adopted broad tobacco control policies. By the year 2001, three countries in the Region (Brazil, Canada, and the United States) had adopted policies that effectively prevent tobacco use by children and adolescents¹².

Available data for price changes in tobacco show that 8 of 12 countries in the Region have raised tobacco prices for Marlboro cigarettes from what they were in 1990-2000, and 7 of 12 raised prices for local brands.

4.1.26 Health Information Systems

Goal: *All the countries will have a health information system that provides basic health data that meet validity and reliability criteria.*

PAHO's Special Program for Health Analysis has not yet developed a standardized set of indicators to monitor the validity or reliability of the core health data provided by national health information systems. However, the number of countries that have published at least two national core health data brochures increased annually from four in 1998 to 20 as of March 2002¹³.

4.1.27 Registry of Deaths

Goal: *As a result of coordination with the pertinent entities, unregistered deaths will be below 20%.*

According to the available data, in 1998-2000, in seven countries the unregistered deaths remained at over 20%¹⁴.

¹² The criteria used for effective tobacco control policies for young people were: higher real prices for tobacco products through increases in tobacco taxes; the elimination of tobacco advertising; and the establishment of smoke-free environments. These policies are based on Resolution CD43.R12, entitled Framework Convention on Tobacco Control, adopted by the 43th Directing Council.

¹³ Indicator developed and reported by the Special Program for Health Analysis, PAHO.

¹⁴ The data for 2000 and 1998 are the same, as a composite estimate was used over the period to obtain more robust and reliable estimates. Therefore, the data cannot be compared over the evaluation period.

Goal: *Less than 10% of registered deaths will be classified under "ill-defined causes"*

By 1998, six countries continued to report that more than 10% of deaths were due to ill-defined causes. Data for this indicator is insufficient to compare 1998 with 2000-2001¹⁵.

4.2 Adherence to the Programmatic Orientations

For the five Strategic Orientations (Health in Human Development, Health Promotion and Protection, Environmental Protection and Development, Health Systems and Services Development, and Disease Prevention and Control) Programmatic Orientations (PO) were defined in which the Bureau assumed responsibility for particular technical cooperation efforts. For the Programmatic Orientations, cooperation objectives were defined for the Bureau and are used to evaluate adherence to the PO.

Methodological difficulties are inherent in impact assessment. This is especially true when assessing the impact of technical cooperation, since fulfilling the purpose of cooperation projects does not always mean simply achieving the expected results. Furthermore, it does not depend exclusively on the action of the Bureau but can be attributable to external factors. For example, the simultaneous or synergistic action of other institutions was a determinant in opting for the development of specific high-level objectives to evaluate the progress made in fulfilling the PO, as suggested by the External Auditor in his American Region Planning, Programming, Monitoring, and Evaluation System (AMPES) evaluation report in 2000. As a result, technical cooperation objectives were established for the PO, and the corresponding information on the fulfillment of these objectives is presented below.

4.2.1 Health in Human Development

Objective: *Develop and strengthen national and regional capacity to analyze and monitor the health situation and the reciprocal relationship between health, economic growth, and equity in the context of globalization.*

Sufficient information was gathered and disseminated to all Member States on the links between investment in health, economic growth and equity, within the context of globalization. Based on that, the Bureau was able to provide solid conceptual and empirical foundations to support the inclusion of health development as a key component of regional and national development strategy forums, including summit processes, social sector conferences, subregional conferences, and national development programs,

¹⁵ The latest available data is incomplete and was estimated using different methodologies from the 1998 data. Special Program for Health Analysis, PAHO.

including the areas of poverty reduction, economic growth, and human development with equity.

During the period, the Bureau produced and/or translated various original concept papers and publications on the issue of the determinants of health equity, including the following: "Quality of Growth", with the World Bank; "Challenges of Equity: from Ethics to Action", with the Rockefeller Foundation; and a special issue on equity of the *Pan American Public Health Journal*, and developed the EQUIDAD list on the Internet with 5,910 subscribers and 14 equity networks.

Health Inequality Data sheets were published, based on household surveys in 10 countries. The database on national household surveys focusing on health-related topics was updated; it now includes surveys and is disseminated through PAHO's web page <http://www.paho.org/spanish/hdp/asp/Results.Asp?L=E>). As part of this objective, PAHO was accepted as a member of the Program for the Improvement of Surveys and the Measurement of Living Conditions in Latin America and the Caribbean Initiative (MECOVI) involving the World Bank, the Inter-American Development Bank (IDB), and the Economic Commission for Latin American and the Caribbean (ECLAC).

All the subregions in the Americas are now part of the National Health Accounts (NHA) processes, thanks to the collaboration of the World Bank, IDB, USAID, and WHO, within the context of the Initiative. NHA data and related information are disseminated through PAHO's Core Data and the Shared Agenda's NHA web page (<http://www.lachealthaccounts.org>).

A book based on the results of the study on equity in health as seen from an ethnic perspective was published. A meeting of experts analyzed the issue of ethnicity and health equity, and the report was published. Conceptual and methodological tools for defining gender equity in health were developed and disseminated, indicators to document its existence were formulated, and methods to evaluate public policies from a gender equity perspective were developed.

A multicenter research project on Health Equity has concluded in five countries, yielding first-hand information about inequities in the health situation and health care.

The Bureau coordinated a research project in six countries on the topic of gender equity in access to health services. Its results have been presented in several forums. The Bureau conducted a research project in 10 countries on the critical path followed by women that experience violence, which provided inputs to establish local networks, advocate for policies and legislation, and develop instruments to address the problem. It also produced and tested a series of indicators for the development of gender-sensitive health profiles.

A global database of gender and women's health training courses was established, and a strategy to measure the contribution of unpaid domestic work to the production of health was implemented. A group of experts from the fields of economics, public health, and social sciences was convened for this purpose.

The formation of intersectoral networks was fostered at the local, sector, and national levels in 10 countries (Belize, Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Peru) to address gender-based violence and promote nonviolent relations. One hundred networks are currently in place. Support was also provided for the formation of intersectoral networks in government and public society to advocate for gender equity in health sector reform policies in Chile and Peru. Parliamentary, ethnic, and other regional networks were supported.

Several processes documenting inequities in health were carried out during the period. Fact Sheets for 10 countries (online and hardcopy) were produced; inequalities in access to water reports in 11 countries (online and hardcopy); publications on equity in health: from an ethnic perspective, investment in health; social and economic returns; and a study on gender and access and a financing of health services.

A database was created on all centers and people working in the field of bioethics in Latin America and the Caribbean, and a contact network was established for graduates of the courses offered by the Regional Program on Bioethics who are working in their respective countries.

Objective: *To generate, disseminate, and utilize public health knowledge and practice in health promotion, health care, and health recovery to promote sustainable human development and facilitate the participation of the principal social and political actors in society and the sector in the definition of health policies.*

During the period, a project for a Virtual Health Library (VHL) was developed and implemented, using Internet technology; 650 Locators of Information (LIS) are currently online. The VHL provides information on different topics related to public health, which include gender and the health of specific age groups. The Region's VHL is now operational, with universal access to a dynamic network of linked information sources that provide a continuum of updated scientific information on health development generated locally and internationally, to support continuing education programs and activities and decision-making in health.

In relation to health legislation, a *Legislation Review in Latin America and the Caribbean* was published with the IDB, and a virtual online course on health legislation was developed.

Poverty and economic development proposals were prepared for NHA, Norwegian Agency for Development Cooperation (NORAD), Swedish International Development Cooperation Agency (SIDA), ISALUD, and the Portfolio of Strategic Partnerships was increased with the Inter-American Defense Board, the World Bank, USAID, the Department for International Development of the United Kingdom (DFID), CEPAL, MECOVI, the United States Census Bureau, the Rockefeller Foundation, the Oswaldo Cruz Foundation (FIOCRUZ), the Caribbean Community (CARICOM), the United Nations Development Programs (UNDP), the Organization of American States (OAS), and the Latin American Integration Association (ALADI). It includes several areas in which not all of them are participating: poverty and health, social capital, sustainable development, national health accounts, information gateway, health and equity, and trade, integration, and health.

In order to promote gender sensitivity, for the Meeting of the Health Sector of Central America and the Dominican Republic (RESSCAD), the Latin American Parliament (Parlatino), the First Ladies meetings, and regional summits, an integrated model was included to address gender-based violence.

Objective: *Develop public health as a discipline, conduct the related research, and disseminate the knowledge generated to adequately meet the health needs of the population, especially those of the most neglected and excluded groups.*

During the period, the “Public Health Research” series was developed for electronic publication and the dissemination over the Internet of research findings financed by the Research Grants Program (RGP). The RGP financed a total of five multicenter projects, mobilizing the participation of 30 research centers in 23 countries of the Region, directly financing projects totaling US\$1,335,000.

To contribute to the training of investigators, 50 grants for master's theses and doctoral dissertations were awarded to graduate students in 16 Latin American and Caribbean countries, with a direct outlay of \$500,000. Of the projects financed, 31 were doctoral dissertations, 15 of which were proposals from candidates registered in programs outside their countries of origin. During the period, the Research Grants Program, which finances research projects with an internship at a center of excellence abroad, provided support for 52 investigators doing post-doctoral internships in more than 30 institutions of excellence in the United States and Canada.

Agreements were signed with the Carlos III Institute of Spain, the United States National Institutes of Health (NIH), Harvard University's School of Public Health, and the Latin American Biological Sciences Network (RELAB) for the training and exchange of investigators, funding 25 individuals from eight Latin American and Caribbean countries to engage in collaborative research on relevant public health issues in the Region.

Investigación en pro de la salud (Research for Health), a book documenting the major research trends in Latin America and the Caribbean, was written and published. The Virtual Science and Health Library was also launched as an instrument to support scientific activity in the field of health.

Qualitative research on gender and quality of care was conducted in Argentina, El Salvador, Guatemala, Honduras, Nicaragua, and Peru, whose findings were used in the training of health workers in six countries and the development of national disease prevention policies in two countries.

The research ethics committees of six countries were evaluated, workshops on the teaching of bioethics were held in 10 more countries, and, with support from the Fogarty Center of the NIH, initiatives were launched to train investigators in bioethics analysis methodologies.

4.2.2 *Health Promotion and Protection*

Objective: *Create a new culture of health promotion and protection in conjunction with the countries, making it a social value endorsed by individuals, communities, and public, nongovernmental, and private institutions, all of whom will take responsibility for preserving and continuously improving health and well-being.*

Forums, conferences, workshops, and seminars were held during the period, disseminating the theory and practice of health promotion. Disseminating the concept and strategies of health promotion fosters an integral concept of health: health as a resource for daily living, as quality of life, and as a social value. By disseminating a positive concept of health through the many health promotion networks in place, we help to create a culture of health promotion.

Since 1997, Brazil, Canada, Colombia, Costa Rica, Cuba, Chile, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Peru, Uruguay, and Venezuela have been committed to the establishment of the healthy municipalities and communities network in order to continue disseminating this innovative strategy and help create a culture of health promotion and protection. In 1998, at the II Meeting of the Health-

promoting Schools Network in Mexico, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, and Uruguay quickly adopted this strategy, adapting it to their specific needs. Later that year, the regional Conference of Health Promotion and Education for Health was held in Puerto Rico, and the III Meeting of the Healthy Municipalities and Communities Network was held in Medellín, Colombia.

Educational and marketing materials on health promotion were also prepared and disseminated, and the 5th Global Conference on Health Promotion was held in Mexico, facilitating their use in the orientation of municipal chiefs in Argentina, Bolivia, Brazil, Honduras, Jamaica, Nicaragua, and Paraguay. The Declaration of Mexico, signed by the official delegations of all the countries of the Region and other countries of the world, placed health promotion high on the public agenda as a public health strategy and committed the Member States to implementing national plans of action to promote health and, hence, a culture of health promotion. Argentina, Bolivia, Brazil, Chile, Ecuador, Jamaica, Mexico, Nicaragua, Panama, Paraguay, and Uruguay, subsequently implemented national plans for health promotion.

To include the people in this process, a participatory local planning model was developed containing tools to involve communities in the formulation of local plans of action for health promotion. This model can be consulted in a PAHO Expanded Textbook and Instructional Materials Program (PALTEX) publication.

A survey was conducted on the current status of Health-promoting Schools in 19 Latin American countries. Ninety percent of the countries responded to the survey. The survey data are being analyzed and will be used in drafting the Plan of Action of the Regional Health-promoting Schools Initiative 2003-2007. Monitoring of the material requested and sent to the countries showed a 72% increase in the dissemination of technical information on Health-promoting Schools to the countries.

A competition was held among municipalities and cities working to promote healthy lifestyles. An award was conferred on the “Agitate São Paulo” (Get Moving São Paulo) program for its contribution to the promotion of physical activity and to Chile for its “VIDA CHILE” (LIFE CHILE) program.

Given the serious national and international efforts to defend the cause, promoting adolescent health and development was the central focus of the 1999 and 2002 meetings of First Ladies, the United Nations General Assembly Special Session (UNGASS), and the Ibero-American Youth Organization, which established a Young People's Forum in Panama. At the national level, 26 countries adopted PAHO's conceptual framework for adolescent health and development.

One of the main achievements during the period was the formulation of policies, plans, programs, and standards. Analysis, updating, and the formulation of healthy public policies were promoted in the following areas: tobacco control, sexual and reproductive health, healthy aging, adolescent health and development, nutrition and food security, a good diet and active life, and the human rights of people with mental illness. "VIDA CHILE" is an example of a national healthy public policy. Facilitating intersectoral collaboration and investment in the health and quality of life of Chileans, it is a vehicle for setting national objectives in health promotion.

An area with a significant impact on the development of policies and standards in health promotion is adolescent health. Eighteen percent of the countries currently have National Adolescent Health Programs and have passed laws on adolescent health. Some 69% of the countries have standards for integrated adolescent health care.

A variety of actions were taken to support cooperative and operations research on health promotion through the network of Collaborating Centers and to disseminate the results. In this area, the countries received assistance with situation analysis in the form of research software. By 2001, 21 countries had data disaggregated by age group. A study on models for research on the sexual and reproductive health of adolescent males was also conducted, published, and disseminated in nine countries of the Region.

The Collaborating Center of the University of Minnesota conducted a study with 11 Caribbean countries entitled, "A Portrait of Adolescent Health in the Caribbean 2000," and support was provided for the development of the "adolec.org" web page and the virtual health library on adolescents (ADOLEC) with the Latin American and Caribbean Center on Health Sciences Information (BIREME) to distribute current relevant information to all countries with Internet access.

Progress was made during the period in designing and strengthening methodologies and models to evaluate programs and interventions in the areas of health promotion, the development of healthy environment or healthy spaces initiatives in schools and municipalities, and the consolidation of networks of mayors, health secretaries, and health-promoting schools consortia.

In this area, a model was developed for evaluating health promotion experiences, especially to build up the evidence base on the effectiveness of health promotion strategies. The following Collaborating Centers participated in this effort: the University of Toronto Health Promotion Center, the United States Centers for Disease Control and Prevention (CDC), the University of Laval, the University of São Paulo, the University of New Mexico, and the Universidad del Valle.

Great strides were made in implementing the Latin American Network of Health-promoting Schools, created in 1996, and the III Meeting of the Network was programmed for the present year. Another event was the I Meeting and Creation of the Caribbean Network of Health-promoting Schools. The establishment of the Caribbean Network and the consolidation of the Latin American network have created opportunities for the exchange of knowledge, ideas, resources, and experiences in the Region to support the Health-promoting Schools Initiative.

Several evaluation methodologies and models were designed, published, and disseminated: for example, the monitoring and evaluation manual "Focus on Young Adults"; the healthy spaces case study in Horquitas, a municipality in Cienfuegos, Cuba; and several models to promote life-skills among adolescents and young adults.

Concerning the development of strategies to promote intersectoral work and mobilize technical, scientific, political, and financial resources to encourage health promotion, strategies were designed and implemented to facilitate and promote intersectoral efforts and mobilize technical, scientific, political, and financial resources. The Bureau worked with WHO in the areas of mental, reproductive, and adolescent health; with the IDB, in aspects of health promotion and the development of strategies to promote healthy aging; with the World Bank, in aspects of reproductive health, maternal mortality, and school health; with the Canadian International Development Agency (CIDA), in capacity-building in health promotion and tobacco control; with USAID, in the reduction of maternal mortality; with the National Institute for Mental Health-Substance Abuse Mental Health Service Administration (NIMH-SAMSA), in the promotion of mental health; and with the CDC, in the development of a model to evaluate local health promotion.

Several activities were carried out to promote the use of social communication in health, especially through the Region's communications media, with a view to putting health promotion on the public agenda. A significant step was the creation of a network of 120 journalists and communications professionals specializing in health in Central America to disseminate positive information on adolescents in the press.

Objective: *The strategies and programs in health promotion and protection will be disseminated, evaluated, adapted to national needs, and implemented in the countries of the Region.*

The achievement of the goals of the World Summit for Children was monitored through participation in interagency publications and the organization of the V Interministerial Meeting in Jamaica together with UNICEF and other organizations in October 2000. This event was the venue for technical and policy discussions on the

situation and the position to be taken by the Region of the Americas at the upcoming UNGASS, to be held in New York to evaluate the decade and set goals for the future.

Scientific and technical information on health promotion was disseminated to a wide range of stakeholders interested in public health in the Region, through meetings, presentations, and training workshops, as well as the Internet and publications. In 2001, publications began to be disseminated on CD-ROM. More than 6,100 copies of materials on adolescent health were distributed to focal points, ministries of health, health programs, health professionals, and international meetings.

The Bureau participated in and supported the evaluation of health promotion strategies and experiences in Brazil, Chile, Costa Rica, Cuba, Ecuador, and Mexico. Furthermore, in addition to promoting the evaluation of local and national programs, it conducted three evaluations of the Adolescent Health Program.

The proposal "Health, Nutrition, and Development for Women, Children, and Adolescents" was widely distributed during the Jamaica meeting on health promotion, which resulted in the Consensus of Kingston, signed by all the countries.

The Bureau contributed to the promotion of healthy lifestyles by fostering and disseminating programs that encourage good nutrition, an active life, smoke-free spaces, and healthy aging—in particular, through the Health-promoting Schools and Healthy Municipalities and Communities initiatives.

Health-promoting Schools were fostered in the countries by strengthening the mixed health and education commissions, redefining policies, updating the curriculum, making health promotion part of educational reforms, upgrading the health infrastructure, promoting life-skills programs; training teachers in conflict resolution and violence prevention, and adapting instruments on risk-taking behaviors. A publication on theory and practice with regard to adopting and maintaining healthy behaviors and changing behaviors that can jeopardize health is already in press.

Models and instruments were developed for health agents that work with adolescents and young adults: *State-of-the-Art in Resiliency*; *Manual on the Identification and Promotion of Resiliency in Children and Adolescents*. Models for adolescent-friendly services that involve adolescent males were also proposed.

Objective: *Ensure that health promotion contributes to further human development and to the prevention of disease throughout the life cycle in the countries of the Region.*

The Bureau drafted a regional proposal for health promotion and comprehensive child development consisting of a two-stage participatory process that involved first, an expert consultation, and second, the participation of all the countries in two subregional meetings that brought together PAHO staff members in the countries and the directors of the children's programs of the ministries of health. To support the strategic proposal, a systematic study was made of the reliable evidence on cost-effective interventions in the area of comprehensive child development.

The ethical pillar of the proposal is equity in the rights of girls and boys; the conceptual pillar, human development; and the strategic pillar, health promotion, with its basic strategies—namely the reorientation of the health services, the development of healthy public policies for children and families, the creation of information and surveillance systems, the development of competencies at the individual, family, and community level, intersectoral collaboration and cooperation, and the construction of healthy spaces for child growth and development.

The proposal's main areas of action are technical support to boost the institutional capacity of the countries to meet the needs of children and families within their cultural context; technical support to facilitate family and community empowerment to enable them to play a proactive role in the processes involved in the health and development of girls and boys, and technical support for the generation and dissemination of reliable evidence and good practice.

Health promotion includes the aspects of food and nutrition, especially the issues of malnutrition, micronutrient fortification of food, breast-feeding, supplementary feeding, nutritional guidelines for different ages, and food security. In this area, the Bureau made great efforts to develop a strategy to promote adequate supplementary feeding, which was disseminated in Bolivia and Ecuador. Furthermore, with the contribution of all the countries of the Region, a resolution was adopted promoting exclusive breast-feeding up to the age of 6 months.

Courses on breast-feeding were offered in Argentina, Bolivia, Colombia, Cuba, and the English-speaking Caribbean. A joint evaluation of the iron-fortified milk program was conducted with Argentina.

To help reduce iron deficiency anemia and the incidence of neural tube defects, support was provided to Belize, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua,

Panama, Paraguay, Peru, the United States, and Venezuela to promote iron fortification of wheat flour. Thirteen of these countries are also fortifying wheat flour with folic acid (Belize, Bolivia, Canada, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and the United States), and El Salvador, Guatemala, Honduras, and Nicaragua are also fortifying corn flour with iron. In a joint effort with the CDC and the March of Dimes, support was provided to Chile to assess the impact of fortifying wheat flour with folic acid.

4.2.3 *Environmental Protection and Development*

Objective: *The countries of the Region will make progress in meeting the objectives and goals adopted in Agenda 21 and the Plans of Action of the Summits of Presidents and Heads of State and Government of the Hemisphere, as well as the orientations outlined in the Plan of Action of the Pan American Conference on Health and Environment in Sustainable Human Development.*

In the area of Environmental Quality, there are more than 10 countries in the Region with cities that have developed local air quality programs. However, only a few countries have national air quality programs. In this area, several guidelines and self-instruction manuals were developed and are being implemented with the support of the "Centro Nacional de Medio Ambiente" (CENMA) in Chile and the "Centro Nacional de Investigación y Capacitación en Ciencias Ambientales" (CENICA) in Mexico.

Every country in the Region has a national plan to phase out lead in gasoline, and at least 21 have already proceeded with its total elimination. The Bureau collaborated in the development of methodological guidelines for this purpose. This information was made available to the international community on the Internet at: (<http://wbln0018.worldbank.org/essd/pmext.nsf>).

The Occupational and Environmental Aspects of Exposure to Pesticides in the Central American Isthmus (PLAGSALUD) project was implemented during the four-year period. Research was conducted, local and national personnel were trained, and local pesticide commissions were implemented. The project's execution is considered as a model in the Region and by WHO.

The Regional Program for Action and Demonstration of Sustainable Alternatives for DDT-free Malaria Control in Mexico and Central America has been approved at the technical level, and it is scheduled to be executed in September 2002 with US\$ 7 million in financial support from the Global Environmental Facility (GEF).

The PAHO/WHO Office in Brazil, the Field Office, United States-Mexico Border in El Paso, and other institutions collaborated with the Bureau in the adaptation of the

methodological materials developed by WHO and the Collaborating Center of Quebec. These methodologies will be applied in the epidemiological environmental surveillance systems. The agreement with the CDC was renewed, for a total of \$490,000 per year; the agreement involves technical cooperation activities in El Paso, training in Mexico, and research.

The Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) web site was converted to the Virtual Toxicology Library, which contains information and mechanisms for information exchange in the field of chemical safety. (<http://www.cepis.ops-oms.org>)

A plan was implemented to achieve international accreditation (ISO Guide 17025) or its equivalent of the CEPIS Laboratory for specific environmental analyses. The CEPIS laboratory participated in two rounds of proficiency testing and underwent a rigorous audit conducted by the Canadian Association for Environmental Analytical Laboratories (CAEAL). It met all the requirements for accreditation according to the international standard ISO/IEC 17025 and is now accredited by the Standards Council of Canada (SCC). This means that CEPIS has demonstrated its ability to function at the highest level of performance in environmental analyses.

International agreement was reached at a WHO meeting held in June 2000 in Berlin on the approach to be used for revising a list of chemical parameters, including those of pesticides. For the first time, WHO Regions had an active role in the process through membership on the WHO Drinking Water Quality Committee. PAHO is managing and coordinating the review of the chemical parameters. Contributing institutions have volunteered to prepare the background documents. These include Health Canada, the United States Environmental Protection Agency, the Water Research Center of the United Kingdom, the German Ministry of Environment, and the Danish Water Research Institute.

Many countries, especially the Central American, formulated national health and environment plans and, through RESSCAD, approved a Central American Plan for Health and Environment in Sustainable Development, using the methodology promoted by PAHO/WHO. To ensure implementation of the national plans and continuous monitoring, the Environment and Health in the Central American Isthmus Program/Project for Institutional Strengthening (MASICA/PROFIN-II) was renewed.

In anticipation of RIO+10, the national groups were reactivated in all the countries. Some participated in the drafting of the country report that each country presented at the four subregional preparatory meetings (El Salvador, Havana, Quito, and Santiago) for the Regional Conference, held in Rio de Janeiro in October 2001. The strategy was promoted widely in the Region and introduced at international, regional,

subregional, national, and local events. Five thousand new copies of the document (in English, Spanish, and Portuguese) were published and distributed, as well as pamphlets and videos on Primary Environmental Care (PEC) and Ecoclubs. Two new videos on the International Network of Ecoclubs and Primary Environmental Care Centers (CAPA) were produced. The video on the International Network of Ecoclubs was produced, edited, and distributed throughout the Region, in English, Spanish, and Portuguese.

The document prepared by the PAHO/WHO Representative Office in Nicaragua, "Approaching Primary Environmental Care", based on the original strategy paper, was reprinted and distributed throughout the Region. In June 2000, the First Pan American Meeting of the Municipal PEC Network was held in Toledo, Paraná, Brazil, attended by prefects, mayors, and district chiefs from more than 12 countries. In June 2001 the Second Pan American Meeting of the Municipal PEC Network was held in Paraná, Entre Ríos Province, Argentina, attended by municipal representatives from 12 countries.

The PEC strategy was outlined at important regional and international events such as: the Third Forum of Municipal Health Secretaries held in Quebec, Canada; the First Meeting of the Municipal PEC Network, held in Toledo, Brazil; national meetings on PEC in Argentina, Brazil, Chile, Costa Rica, Ecuador, Paraguay, and Uruguay, among others.

Virtually every country in the Region has processes in place to promote the institutional development of its environmental health unit. The Bureau participated and supported these processes in Brazil, Chile, El Salvador, and Paraguay.

A Regional Meeting on Institutional Development of the Environmental Health Bureaus of the Ministries of Health in the English-speaking Caribbean was held in Barbados. Officials from the highest levels of environmental health in all the countries attended and participated in the event. Furthermore, the Third Regional Meeting on Institutional Development of the Environmental Health Bureaus of the Ministries of Health of the Latin American countries was held in Chile, with the participation of the national directors of 21 countries. Brazil was the site of the Fourth Regional Meeting on Institutional Development of the Environmental Health Bureaus of the Ministries of Health and the 1st Regional Forum on Health and Environment, in which 117 officials from 22 countries participated, with delegates from the health sector of 20 countries and from the environmental sector of 10.

A partnership was established with the University Hospital Center of Quebec (Centre Hospitalier Universitaire de Québec), participating with the Caribbean Environment Health Institute (CEHI) in the proposal for an "Institutional Network for Training in Environmental and Health Impact Assessment (Inet-EHIA) in the Americas"

for the English-speaking Caribbean, submitted for the consideration of Canadian financing agencies.

Objective: *The countries of the Region will address the physical, chemical, and ergonomic factors that adversely affect workers' health in both the informal and formal sectors.*

Multipartite boards or committees are in place to coordinate the execution of national, subregional, and regional plans. At the national level, Colombia, Costa Rica, Ecuador, Guyana, Peru, and Trinidad and Tobago have committees that also have national workers' health plans.

A multisectoral document on progress in the control of occupational risks related to the national workers' health plans was prepared and published, and it has been distributed to all the countries in the Region.

With a view to facilitating workers' health situation analysis in the countries, a special information system was developed whose utilization has begun in Chile, Colombia, Cuba, and Venezuela.

With technical assistance from the PAHO/WHO Collaborating Center of Mount Sinai Hospital and Queens College, in New York, and support from the Ministry of Labor and Social Welfare, the Mutual Associations, the Institute for the Standardization of Benefits of the Navy and Carabineers of Chile, the Ministry of Health of Chile established the Epidemiological Surveillance System of Fatal Work-related Accidents.

In Brazil, the Ministry of Health of the State of Rio Grande do Sul established the Workers' Health Surveillance System, under its Comprehensive Workers' Health Care Policy. This is a decentralized, regionalized system that monitors accidents in the workplace, their external causes, and environmental risks. It operates through a network of sentinel hospitals with 28 regional stations or poles, and it also receives information from unions, the regional coordinators, and the Regional Workers' Health Referral Centers.

This model, developed in Brazil with the support of PAHO, several universities, and the Industrial Social Service (SESI) of Brazil, is being implemented in 14 midsized companies and in the tobacco-growing sector in Nicaragua and three refuse collection systems in Minas Gerais, Brazil. The results of these three experiences were systematized in a "tool kit" containing several methodological and training tools to assist the countries. Three international workshops were held in Costa Rica, Mexico (5th Global Conference on Health Promotion), and Brazil, at which the basic documents of the model were presented for discussion and approval. Agreement was also reached to prepare and

disseminate a standardized kit for implementing the model at the regional level, based on the experiences mentioned above.

This model was employed in the preparation of an applied research project for use in five Central American countries. Aimed at promoting workers' health in the *maquiladora* and floriculture industries, the project was presented to the Project Review Group and adopted by the Council of Ministers of Health of Central America (COMISCA) and the Central American Integration System (SICA) within the framework of the memorandum of understanding between PAHO and the Ministers of Labor. An electronic network (PROMSALUD) was created for regional information exchange in this area, with connections to the global network Conferencing Server System (HECONET).

A Meeting on Occupational Epidemiological Surveillance was held for the Southern Common Market (MERCOSUR) countries and its associate members (Bolivia and Chile), with the participation of senior officials from the ministries, universities, and other governmental and nongovernmental organizations to promote epidemiological surveillance projects for at least three sentinel events: accidents (fatal and nonfatal), pesticide poisoning (rural and urban), and lower-back pain. Another type of event that could be included is exposure to carcinogens.

Based on the experiences of Brazil, Chile, and Venezuela, guidelines were drawn up for the development and implementation of workers' health information systems in other countries.

In Ecuador, materials, documents, and instruments were prepared on the conceptual and operational aspects of integrating health and safety into the centralized model of the health services system. Then, the training model was applied to health workers in primary care, using the integrated services approach, which includes programs and activities in prevention, promotion, medical care, and rehabilitation. This model was developed as part of Ecuador's sectoral reform process and covers all 52 provinces in the country. An international meeting is being organized to present the materials on the model, promote its dissemination, and introduce possible changes.

An instrument was developed for standardizing the legislation on workers' health in Central America. It will be presented to the International Labor Organization (ILO), the NAFTA Commission on Labor Cooperation, and the Ministers of Labor of Central America for its use and dissemination.

In a joint effort with Quebec's Collaborating Center, workers' health indicators were developed for their inclusion in PAHO's Basic Indicators. Mortality from occupational accidents was selected as the preliminary indicator.

As an integral part of the VHL and the Democratizing Knowledge and Information for the Right to Health project (DECIDES), computer networks were set up through the electronic workers' health network, RST-LAC, to disseminate information for decision-making.

In collaboration with the WHO Task Force for the Protection of Children's Environmental Health and the ILO International Program on the Elimination of Child Labor, a methodology was developed to permit rapid assessment of the health of working children. This methodology employed in El Salvador among children who work in garbage dumps and in the fishing and agricultural sectors.

Negotiations commenced with WASTE, the Dutch cooperation agency, on the project "Towards a Better Life for Waste Pickers," which includes a methodology for ascertaining the living conditions and health status of the children who work in garbage dumps in three Latin American countries.

In Peru, an epidemiological study was conducted on environmental and occupational poisoning among children exposed to lead. With support from the Environmental Protection Agency of the United States (EPA) and the CDC, the results will be presented at an international meeting. The issues of child exposure to environmental and occupational pollution and methodologies for analyzing the health conditions of children are discussion topics of the WHO Task Force for the Protection of Children's Environmental Health, in which the Bureau participates.

Objective: *Increase coverage of water supply and sanitary excreta disposal services, concentrating on improving the bacteriological quality of drinking water.*

It is estimated that by the end of the period, the population with drinking water provided by household connections will have increased by 5%. It is likewise estimated that the population with sewerage disposal through household connections will have increased by 10%, and the population with wastewater treatment by 15%. The disinfection of water for human consumption is expected to have increased by 5% of the population served.

With the coordination of CEPIS and support from the German Technical Cooperation Agency (GTZ), projects were carried out to reduce waterborne diseases and illnesses associated with poor sanitation in indigenous communities. The project had initially programmed activities in Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, and Venezuela, but Argentina, Brazil, and Paraguay were subsequently added to the list.

Analyses of the drinking water and sanitation sector were conducted in Costa Rica and Uruguay, and proposals for a Reform and Modernization Plan for drinking water and sanitation were drafted in the Dominican Republic and Venezuela. In the context of the 2000 evaluation of drinking water and sanitation services, reports (brief sectoral analyses) were prepared for 35 countries and territories in the Region, in addition to a regional report; these were published on the CEPIS web page.

As inequities in health were the main concern of the SPO during the period, studies were conducted on inequities in access to drinking water and sanitation services in 11 Latin American and Caribbean countries.

The drinking water and sanitation component of the model Environmental Sanitation Information System was completed. This will gradually help to eliminate some of the information constraints in the Region's water and sanitation sector.

Health-in-Housing diagnoses were completed in Cuba, Ecuador, El Salvador, Guatemala, Haiti, Nicaragua, Peru, and the United States, and the process was initiated in Argentina, Bolivia, Costa Rica, Chile, Paraguay, and Venezuela. Furthermore, a position paper on health-in-housing policies in the Region that complements the national studies was reviewed and will be used in decision-making. The paper concentrates on the issues of housing and healthy municipalities, in addition to PEC.

The network of Health-in-Housing Centers was promoted, pursuant to the objective of improving a strategy to address the housing problem from the public health perspective by building national capacity to deal with its local causes from a multisectoral and multidisciplinary standpoint and enlisting the participation of communities.

Continuity was provided for the institutional development of the Network of Health-in-Housing Centers, and support was provided for the reformulation of the initiative in Chile and Mexico. Courses, workshops, and seminars on health in housing were offered, attended by 500 people throughout the Region. Agreement was reached on the multicenter Health-in-Housing project, which combines local action with regional components and covers Argentina, Bolivia, Cuba, Ecuador, Haiti, Peru, and Venezuela.

Manuals and guidelines for disaster prevention, response, and mitigation in the area of basic sanitation were published, with the participation of the Emergencies and Disasters Division of the Inter-American Association of Sanitary Engineering (AIDIS). These materials are being disseminated throughout the Region.

Objective: *Improve municipal solid waste management in the countries of the Region, taking into account the rapid decentralization and privatization.*

Up-to-date guidelines for sectoral analysis in domestic solid waste, for the formulation and implementation of master plans for municipal solid waste management in medium-sized cities, and for sectoral analyses of the waste generated by hospitals and health institutions were developed and made available to the countries. CEPIS published three manuals and two guides on municipal and hospital solid waste and updated the systems on the Information System for Calculating the Cost of Domestic Solid Waste Management Service (COSEPRE) and the Information System for Urban Solid Waste Management (SIMRU).

The Bureau participated in the analyses of the solid waste sector in Ecuador, Panama, Paraguay, and Venezuela, and the solid waste organization processes were concluded in Peru and Venezuela; a project for sectoral organization and service improvement was launched in Panama and Paraguay and prepared in the Turks and Caicos Islands. In Peru, a new legal framework for solid waste management was established.

Educational materials for solid waste management courses were designed and produced for the distance-learning modality. These materials are available in English, Spanish, and Portuguese. In coordination with the Economic Commission for Latin America and the Caribbean/Latin American and Caribbean Institute for Economic and Social Planning (ECLAC/ILPES) and with the participation of different national institutions, the Spanish and Portuguese versions of the course are already being offered. The English version of the course is being developed for the Caribbean countries.

4.2.4 *Health Systems and Services Development*

Objective: *The majority of the countries will have strengthened their capacity situation analysis of the sector and will have evaluated the performance of the public health functions and sectoral reform processes.*

By developing and applying methodologies and instruments for health sector analysis, the Bureau collaborated with the countries to strengthen the sectoral steering capacity of the health authorities. Thus, methodological guidelines for health sector analysis were applied in Nicaragua and Paraguay and will be soon applied in Guyana. Concerning the monitoring and evaluation of sectoral reform processes within the framework of the joint PAHO/USAID project on sectoral reform, methodological guidelines were developed for the preparation of profiles of the health services systems, which were then used in 32 countries of the Region. Concerning evaluation of the essential public health functions for which the health authorities are responsible, evaluations were conducted in every country in the Region in 2001 and 2002, and the Organization's Governing Bodies were informed about their results.

Cooperation was also provided for the redefinition of the functional profiles and the reengineering of the ministries of health to enable them to exercise their sectoral steering role within the context of the reform and decentralization under way in 20 countries of the Region.

In addition, assistance was provided to establish models of care reoriented on the basis of health promotion criteria—models whose conceptual underpinnings were outlined at the 5th Global Conference on Health Promotion in Mexico. Models of care oriented to disease prevention were also promoted. The family health model was implemented or brought up to date in seven countries, within the framework of the primary care strategy. This experience was described at the 1st Ibero-American Congress on National Health Policies and Family Medicine in May 2002.

Concerning improvements in the quality and comprehensiveness of interventions to strengthen the operating capacity of the health services, the WINSIG software was disseminated, and training was provided for its use in hospital management in 15 countries. To improve the response capacity of the services, a medium-term plan was formulated to upgrade nursing and midwife services; networking was introduced in the health services; a situational diagnosis and manual on medical emergency systems were prepared; and adoption of the user's point of view was also promoted, as were the intercultural and gender approaches in the health services in no less than 10 countries of the Region.

To make progress in strengthening the regulatory and operational development of oral health programs and services, 500 professionals from 12 countries were trained in the techniques of fluoridation and the epidemiological surveillance of caries. Eight countries adopted the technique of atraumatic restorative treatment (ART) as policy for its national programs to widen the coverage of dental services. Thirteen countries developed an information system on disabilities, and 10, information systems on services for the rehabilitation and care of the disabled. In the area of eye health, 15 countries conducted national studies, promoted national policies and plans in eye health, and carried out glaucoma prevention and cataract treatment activities. Ten countries promoted activities to improve health care for indigenous peoples.

Objective: *The majority of the countries will have strengthened their national capacity for planning, regulating, and managing the infrastructure, human resources, and inputs of the sector.*

Within the framework of a joint PAHO/ILO project, progress was made toward improving the sectoral capacity to formulate policies and strategies to extend social protection in health, an area considered in a separate report to the Executive Committee.

With a view to strengthening national capacity in health investment and institutional financial management, in addition to setting priorities and allocating resources, a comparative study was conducted of provider payment systems in the English-speaking Caribbean, and the methodology for preparing master plans and designing health investment proposals was employed in Bahamas, Cuba, El Salvador, Guatemala, Honduras, Nicaragua, and Paraguay, among other countries.

Furthermore, 10 countries carried out activities to promote the development of national quality assurance programs for the health services. In many cases, these involved strengthening the national groups responsible for the programs and those in charge of regulating and managing medical technology, infrastructure, equipment, and devices, in addition to the individuals responsible for health technology assessment and those in charge of formulating recommendations for decision-makers. Treatment and clinical practice guidelines were also developed. Most of this work was done jointly with other agencies and institutions, such as: Canadian Environment Assessment Agency (ACEE), International Coordination Council (ICC), Emergency Care Research Institute (ECRI), Global Harmonization Task Force (GHTF), International Society of Technology (ISTAHC), Information Systems and Quantitative Analysis (ISQA), International Society for Quality of Life Research (ISOQOL), and Quality Assurance Project (QAP).

The quality programs for radiology services, particularly mammography, basic radiology, and dosimetry, were strengthened in 19 countries, and protection services for patients were improved in the countries of the English-speaking Caribbean. Five countries received support in the design and implementation of plans to deal with radiological and other emergencies.

The issue of drugs was addressed in the plan of action of the Shared Agenda, signed by The World Bank, PAHO/WHO, and the IDB; the Inter-American Observatory on Drugs was also created. Seven countries took action to improve the regulation, supply, prices, accessibility, and quality of drugs. The Pan American Network for Drug Regulatory Harmonization was strongly promoted, an effort that involved, among others, the collaboration of the Food and Drug Administration (FDA), and the Secretariat of Health of Mexico; similarly, five countries also promoted good manufacturing practices. The Pharmaceutical Forum of the Americas was consolidated, as was the production of standards, norms, and pharmacotherapy and pharmacosurveillance guidelines in another five countries.

Fifteen countries joined the Regional Observatory of Human Resources in Health, and the majority developed their own national observatories. The I Inter-American Conference on Distance Learning for Health Workers was held, and the Virtual Public Health Campus, a consortium of 11 institutions with the Bureau as Secretariat, was launched. A plan of action for the medium term was established with ALAESP, and

national capacities in medical education and the education of health and nursing technicians were strengthened, as were the regional fellowships, textbooks, and international health education programs.

Five countries worked to improve the institutional capacity for developing information systems and implementing health programs and services.

Diagnostic aids are critical in the majority of cases. Thus, special cooperation was provided to improve the public health laboratories in nine Central and South American countries. Another 10 countries worked on standardizing procedures and developing quality control systems for clinical laboratories.

In the year 2000, the Regional Safe Blood Initiative was launched. The III Latin American Conference on Blood Banks was also held, which formulated the Regional Plan of Action 2001-2003. In November 2001, at the end of the initiative's first year, five Latin American and nine English-speaking Caribbean countries were screening 100% of blood units. Furthermore, 20 countries of the Region applied official standards in blood banks, 13 had national transfusion plans and national commissions in this area, and seven had national quality assurance programs for blood banks and blood transfusion centers.

4.2.5 *Disease Prevention and Control*

Objective: *The countries of the Region will continue to move forward with their efforts to control, reduce, or eliminate vaccine-preventable diseases.*

Immunization remains high on the political agenda of the countries. The majority of countries in the Americas prepare five-year and annual plans of action for immunization. All countries, with the exception of Haiti, finance their vaccines with national resources or have established mechanisms leading to that. Immunization laws establishing specific budget lines for the financing of vaccines and syringes have been passed in Colombia, Costa Rica, Ecuador, Honduras, Jamaica, and Venezuela. National committees on immunization practices have been formed in 16 countries.

Significant steps have been taken by countries in building partnerships and alliances to strengthen immunization services, particularly with the private medical sector, to encourage its participation in monitoring suspected cases of vaccine-preventable diseases. This collaboration has taken place primarily through collaborative agreements with regional and national pediatric and infectious disease associations. Another critical area of collaboration has been supporting countries in the development of mechanisms to accredit and monitor the quality of services offered by private health providers that deliver vaccination services.

The performance of most national surveillance systems has allowed for an expeditious response to outbreaks of vaccine-preventable diseases. There has been continuous reporting on morbidity and mortality from vaccine-preventable diseases, and countries are using standardized methods to collect, analyze, and disseminate epidemiological information. The development of regional surveillance networks has greatly enhanced national efforts.

Countries have provided the necessary tools to implement surveillance of pneumococcal, *H. influenzae*, and meningococcal invasive diseases: serotyping techniques, antimicrobial susceptibility testing, and a quality control system through four subregional reference centers. The rubella and measles surveillance systems have been integrated. This has led to improvements in the sensitivity and specificity of rubella diagnosis. Still, there is underreporting, and the true magnitude of the rubella disease burden remains unknown. The congenital rubella syndrome (CRS) surveillance in the Americas is still in its infancy. Improvements are evident in yellow fever surveillance in Bolivia and Brazil, where PASB recommendations have been adopted. Surveillance of acute flaccid paralysis has been improved, and the critical indicators monitoring the maintenance of polio eradication were met.

By the end of 2001, all countries in the Region of the Americas, with the exception of Ecuador, Guatemala, Haiti, Jamaica, Paraguay, and Suriname were using Hib vaccine in the children's routine immunization schedule. Peru provided Hib vaccine to 32% of children under 1 year of age.

As for rubella, 40 of the 44 countries and territories in the Western Hemisphere have introduced a rubella-containing vaccine in routine childhood rubella programs, with the exception of Dominican Republic, Haiti, Paraguay, and Peru. Most of these latter countries have completed cost-effectiveness studies. Of the 40 countries and territories that have already made rubella vaccine part of their routine schedule, 12 countries and six territories of the English-speaking Caribbean and three Latin American countries have implemented accelerated rubella control programs that include adults. The English-speaking Caribbean's goal for the elimination of CRS is well on its way, and both Cuba and Uruguay have successfully eliminated rubella and CRS. Brazil and Chile have conducted rubella campaigns that target adult women for the prevention of CRS, and Costa Rica has undertaken a mass campaign for the control of rubella and the prevention of CRS, targeting both men and women between the ages of 15 and 39. Yellow fever vaccine is part of the routine immunization schedule for children in Brazil's enzootic areas, and in the routine national vaccination schedule in Bolivia and Peru. Lack of intensification of vaccination in yellow-fever-endemic countries is due to the vaccine shortage in the world market.

Vaccine producers have conducted feasibility studies to determine whether they should continue and/or embark on vaccine production. These vaccine-producing countries are Chile, Colombia, Guatemala, Mexico, and Peru.

Regional certification of vaccine producers has been discontinued. PASB is recommending that vaccine manufacturers in the Region apply for an assessment by WHO. Two regional vaccine manufacturers, Bio-Manguinhos in Brazil, and the Center of Genetic Engineering and Biotechnology in Cuba, have been approved by the WHO assessment system for yellow fever and hepatitis B vaccines, respectively. Both producers are now suppliers to United Nations agencies.

Objective: *The countries of the Region will continue to progress in their collaborative efforts to prevent, control, reduce, or eliminate communicable diseases.*

The Bureau's technical cooperation efforts centered on establishing surveillance networks for emerging infectious diseases (EID) and promoting the early detection and prevention of communicable diseases.

One achievement in the Region is that 85% of the countries are participating in surveillance networks for emerging infectious diseases and provide information on a periodic basis. To this end, a Central American Network for the Prevention and Control of EID was set up; under this network, all the countries have national committees for the surveillance, prevention, and control of these diseases. Four more networks are in place, whose composition is not mutually exclusive: the Amazon Region (6 countries), Southern Cone (6 countries); antibiotic resistance of enterobacteria (14 countries), and other bacteria (19 countries). National personnel were trained in laboratory and epidemiological surveillance procedures; their performance was monitored, and this improved the reporting of these diseases.

To support the network for the prevention and control of EID, including antimicrobial-resistant infections, manuals, standards, and norms were prepared and disseminated. In this regard, a bibliographic reference on antimicrobial resistance was published and a manual of laboratory procedures in this field was prepared in collaboration with the Malbrán Institute of Argentina. Also produced were a guide to clinical treatment with antibiotics for children and adults; reports on the Southern Cone and Amazon Region networks; a bibliography on West Nile virus; a guide to the evaluation of epidemiological surveillance systems (including laboratories); a guide to setting up and operating the subregional committee for the prevention and control of EID; and, jointly with the Central American countries, Haiti, and the Dominican Republic, a guide to setting up and operating a national task force in each country.

To ensure that the countries concentrate more specifically on the public health aspects of HIV/AIDS infection, such as program management, the safety of the blood supply, and models for behavioral interventions in health and health care, while continuing to promote a stronger intersectoral response, the Bureau cooperated with 25 countries in the development of sectoral and intersectoral plans and projects, with more than 10 agencies, programs, and NGOs collaborating.

In addition, PASB developed tools to help countries in their planning and policy-development activities (e.g., "Building Blocks," recommendations for antiretroviral therapy, strategies to promote sexual health, etc.). PASB also disseminated second-generation guidelines (biological, behavioral, sexually transmitted infection surveillance, monitoring, and evaluation) to all countries. National professionals participated in nine meetings/training events. Furthermore, 20 countries have benefited from technical visits to help them implement second-generation surveillance. Implementation of second-generation surveillance has begun in most countries and seven already have strategic plans for surveillance.

Great strides have been made with respect to the transfusion-transmission of diseases. Thirteen countries currently report 100% screening for all the required infections—human immunodeficiency virus (HIV), hepatitis B and C, and syphilis—and five Latin American countries report 100% screening for *Trypanosoma cruzi*.¹⁶ Furthermore, 12 countries of the Region screen for all the required infections, although they still do not report figures of 100%.

In addition, 15 countries in the Region participate in quality control programs in the areas of transfusion-transmitted diseases and immunohematology, and two countries participate only in this latter program.

Concerning malaria, eight of the nine Amazon countries conducted efficacy studies and agreed to establish a network to monitor resistance to malaria drugs, with a view to reducing the incidence of the disease and improving the efficacy of treatments. In two Amazon countries, Bolivia, and Peru, the studies' findings have been used in policy-making with respect to the use of antimalarials.

Given the impact of the Integrated Management of Childhood Illness (IMCI) strategy in terms of reducing mortality, the Bureau launched the "Healthy Children: Goal 2002" Initiative, aimed at reducing the number of deaths in children under 5 by 100,000 during the period 1999-2002—that is, by 25,000 deaths per year—mainly through the implementation of the IMCI strategy. The evaluation carried out by the countries in coordination with the Bureau has shown that in the first year of this initiative, 33,000

¹⁶ Screening for *Trypanosoma cruzi* is not required in the Caribbean subregion.

deaths in children under 5 were prevented and that the majority of this reduction involved the illnesses targeted by the IMCI strategy.

Seventeen countries have already adopted the IMCI strategy¹⁷ and adapted it to their epidemiological and operational situation; it is currently in different phases of implementation in the health services and the community. In the health services, more than 35,000 people have been trained in the application of IMCI, and 12 countries have developed projects on community IMCI, with support from and in coordination with NGOs.

The Bureau is currently drafting a proposal to add new components—for example, neonatal health; the control of asthma and chronic obstructive pulmonary disease; the control of accidents, abuse, and violence; and the promotion and monitoring of child development—more consistent with epidemiological profiles characterized by low infant mortality, like those of many countries in the Hemisphere. Another important aspect is IMCI's inclusion in undergraduate and graduate university programs and the strengthening and expansion of the strategy through support for different training modalities, as well as local epidemiological and operations research on IMCI.

Concerning research on communicable diseases, during the period, 16 countries submitted 264 research proposals to the Small Grants Program; 44 received funding. Similarly, four workshops on conducting research projects were held, attended by 63 professionals from 18 countries (Argentina, Bahamas, Barbados, Bolivia, Brazil, Colombia, Cuba, Ecuador, Guyana, Honduras, Jamaica, Mexico, Paraguay, Peru, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela).

¹⁷ Argentina, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

Objective: *The countries of the Region will move forward in their common efforts to control, reduce, or prevent prevalent noncommunicable diseases.*

The number of countries that allocate resources to the area of noncommunicable diseases (NCD) rose by 30%. The priority diseases are cervical cancer, diabetes, cardiovascular disease (mainly hypertension), and injuries. The areas of work identified to combat these diseases are: the primary prevention strategy, CARMEN (Conjunto de acciones para la reducción multifactorial de enfermedades no transmisibles) [Actions for the Multifactorial Reduction of Noncommunicable Diseases]; the monitoring of risk and disease factors; innovative models for chronic care; and advocacy for policy change. Ten countries are participating in the regional CARMEN network, and a model was prepared and adapted to the Region of the Americas. In the Caribbean, a multicountry project was executed that integrates all the areas. In order to boost the potential of this strategy, evaluations began along with planning for a CARMEN school.

An exercise was conducted to estimate the cost of diabetes in Latin America and the Caribbean, with a view to increasing control activities in the Region. The evaluation showed that diabetes constitutes an enormous economic burden in the Region and that the cost of medical care for a person with diabetes is three times higher than the average per capita health expenditure in Latin America and the Caribbean. A special issue of the Pan American Journal of Public Health was published on diabetes, which included articles from Argentina, Bolivia, Brazil, and Chile.

The Bureau coordinated a diabetes survey in four Bolivian cities with a diabetes prevalence of 7.2%. This stirred great interest in governmental and scientific institutions in Bolivia and resulted in the creation of a national diabetes control program.

Two subregional workshops on epidemiological surveillance of diabetes were held in Central America. These workshops led to a plan of action in the participating countries and resulted in a diabetes survey that is currently under way in Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. In addition, a national control program has begun operations in Guatemala.

In coordination with the Declaration of the Americas on Diabetes (DOTA) and the Center for Experimental and Applied Endocrinology (CENEXA) of La Plata, Argentina, the QUALIDIAB system was developed to evaluate the quality of care given to people with diabetes in 10 countries. A workshop on the quality of care for diabetes in Jamaica was also held, attended by representatives from Bahamas, Barbados, Jamaica, Saint Lucia, and Trinidad and Tobago. A quality assessment project has begun in Jamaica and Saint Lucia, financed by DOTA. Standards for the development of educational programs on diabetes in the Americas were published. This work grew out of the efforts of an expert group sponsored by DOTA.

Several activities were carried out to meet the DOTA objective—for example, workshops on strategic planning in Barbados, Bolivia, and Panama, and courses on diabetes for educators in Argentina, Barbados, Colombia, and Puerto Rico. DOTA also sponsored the "Building Blocks" workshop on diabetes education in the Dominican Republic, attended by more than 40 experts in diabetes education from 24 countries in the Hemisphere. Local diabetes associations that work in education have been involved in all these activities.

To help reduce intentional injuries (violence) and unintentional injuries (accidents), a series of guidelines were published and distributed to all the countries in English and Spanish. Based on prevention projects, strategies, and lines of action developed with the authorities and communities, this work, entitled "Guidelines for the Design, Implementation, and Evaluation of Epidemiological Surveillance Systems on Violence and Injuries" is being used in several countries to establish specific surveillance systems.

Hospitals in Colombia, El Salvador, Honduras, and Nicaragua, are currently compiling information on patients with injuries due to external causes. In San Pedro Sula, Honduras, an initial study was used by the mayor's office to develop prevention activities.

Documentation is key to combating violence. Thus, the study "Inside the *Barrio*: The Violent Solidarity of Gangs" was carried out and published in San Salvador. The "Bibliography on Child Abuse", with nearly 700 selected abstracts of the literature, was compiled, published, and disseminated in English, Spanish, and Portuguese.

In Quito, Ecuador, a pilot study was conducted on intrafamily violence and injuries and a bulletin on its findings was subsequently published. The current administration has given the go-ahead to reactivate initiatives to improve the data on deaths from external causes, injuries treated at hospitals, and intrafamily violence.

In Honduras, a national plan to combat social violence during the period 2001-2005 was approved. Prepared by an interinstitutional committee with PAHO support, the plan is awaiting the consideration of the national authorities.

In San Pedro Sula, Honduras, a municipal plan for the prevention of violence in Sula Valley was also approved; this plan has the support of the IDB. El Salvador has a multisectoral committee on violence prevention, headed by the Ministry of Health. This committee is in charge of the study on injuries from external causes in three of the country's hospitals. In Nicaragua, the creation of a multisectoral committee on violence was also promoted.

In order to improve the capacity of health facilities to prevent and detect violence, provide care to patients that are victims of trauma from violence, and design rehabilitation and follow-up programs, RESSCAD prepared and approved a portfolio of three projects for the prevention of violence in Central American countries. The projects are for secondary prevention to victims of violence seen in health facilities, the strengthening of youth organizations that promote nonviolence, and the formation of networks that promote good treatment of children and fight child abuse.

Given the multiple factors involved in the generation of violence and the resulting injuries, it is essential to create and reinforce interinstitutional networks that promote prevention. In this regard, the Andean Network for Injury Prevention and Surveillance was created, coordinated by the PAHO/WHO Collaborating Center, "Centro de Investigación en Salud y Violencia" (CISALVA), at the Universidad del Valle, in Cali, Colombia. The network, comprised of institutions from Bolivia, Colombia, Ecuador, Peru, and Venezuela, is currently advancing in the area of research, and the countries are already sharing information over the Internet (<http://www.redandina.org>).

In addition, the Inter-American Coalition for the Prevention of Violence (<http://www.iacpv.org>) was created, with the participation of the CDC, the IDB, The World Bank, the OAS, PAHO, and the United Nations Educational, Scientific, and Cultural Organization (UNESCO).

With regard to cervical cancer, methods were developed for screening and treating precancerous lesions that will make it possible to launch a large-scale cervical cancer prevention and control program in 2004. A laboratory network (RedPAC) was developed for quality control, the result of a joint effort with Bolivia, Chile, Costa Rica, Ecuador, El Salvador, Mexico, Peru, and Venezuela. Furthermore, digital control of Pap smears was introduced, permitting external performance evaluations of the cytology laboratories at a distance to improve the quality of care.

Objective: *Reduce morbidity and mortality in the human population from the principal zoonoses and foodborne diseases and improve food security and safety.*

The success of programs to eradicate foot-and-mouth disease in South America and prevent its introduction in the countries of Central America, North America, and the Caribbean have yielded significant economic and social benefits for the Region. Through the Pan American Foot-and-Mouth Disease Center (PANAFTOSA), the Bureau is providing technical cooperation to the countries for the implementation of the Hemispheric Program for Eradication. As a result of this program, by mid-2000, the Southern Cone region, consisting of Argentina, Chile, Paraguay, and Uruguay, plus all the states of the southern, central western, and eastern livestock belt of Brazil—an area of

approximately 6.2 million km² with 140 million head of cattle—were free of foot-and-mouth disease.

Prior to 2000, Argentina, Chile, and Uruguay had achieved international certification as being free of foot-and-mouth disease without vaccination; and Brazil and Paraguay, as disease-free with vaccination. This favorable status entailed important economic benefits for these Southern Cone countries, eliminating the losses stemming from the disease, saving the expense of vaccination and treatment, and permitting meat exports to North America and the expansion of trade with European and Asian countries.

This favorable epidemiological situation changed during the second half of 2000, when Brazil and Uruguay experienced outbreaks, which were swiftly eradicated. Unfortunately, a serious epidemic occurred in Argentina. Beginning in February 2001, it spread throughout the country, except Patagonia, crossing over to Uruguay and southern Brazil. This led to the loss of certification for Argentina, Uruguay, and the southern region of Brazil as areas free of foot-and-mouth disease. The estimated annual export losses for Argentina and Uruguay are \$400 million and \$300 million, respectively.

The veterinary system of the affected countries demonstrated the capacity to react swiftly to the reemergence of the disease, and by the end of 2001, the situation was under control. The last outbreak in the subregion was recorded in Argentina in December 2001.

Great progress has been made by Brazil's Amazon Basin project. Sixteen of the 30 federative units of Brazil and Guyana were recognized as free of foot-and-mouth disease. In the countries of the Andean Community, Colombia obtained international certification as disease-free with vaccination in an area covered by the Atlantic Coast Project, with an estimated population of 7 million head of cattle. The disease-free countries of Central America, North America, and the Caribbean maintained their status and rely on the vesicular disease surveillance system and prevention programs currently under way.

Food safety programs were created and strengthened throughout the Hemisphere to assist the public health authorities, which were facing a substantial increase in cases of foodborne disease. The Bureau's technical cooperation followed the recommendations of the External Advisory Group in Veterinary Public Health and Resolution CD42.R10 adopted by the 42nd Directing Council, which outlined a new vision of technical cooperation in food protection, to be implemented through the Pan American Institute for Food Protection and Zoonoses (INPPAZ). This new vision for INPPAZ seeks to ensure food safety in Member States to promote and protect the health of the population and improve access to the international markets for food produced in the Americas. The responsibility for this capacity-building is shared throughout the food chain. In order to fulfill the vision, a program consisting of three work projects with specific strategic

objectives is currently under way: a project to develop national policies in food safety, a project for institutional modernization, and a project for education and mass communication that targets the actors in the food chain.

One of the main achievements has been the creation of the Pan American Commission for Food Safety (COPAIA) in May 2001. This is the only international forum that brings all the actors in the food chain together to discuss and recommend policy guidelines on food safety. In addition, 21 countries in the Region are reporting outbreaks of foodborne disease, which has permitted consolidation of the Regional Epidemiological Surveillance System for Foodborne Diseases (SIRVETA). To continue to strengthen this system, in 2001 a new phase of analysis and evaluation began for SIRVETA, resulting in the publication of a new version of the Guide to Epidemiological Surveillance of Foodborne Diseases (GUIAVETA).

In the area of regulatory harmonization, the Regional Information System on Food Regulations (LEGALIM) was created to offer the countries of the Region a system with an up-to-date database for storing and processing the full text of the countries' food legislation. Ten countries are already participating in the system.

Modern inspection services based on good manufacturing practices, standard sanitation procedures, and the hazard analysis critical control point system were promoted. INPPAZ published several training manuals on these topics and disseminated the materials over the Internet through the VHL.

INPPAZ continued to serve as the Secretariat ex officio of the Inter-American Network of Food Analysis Laboratories (INFAL), created in December 1997 to improve food analysis services to promote food safety in the countries of the Region. At present, the network consists of 66 laboratories in 32 countries of the Region.

Special information services on food safety were developed and maintained for the ministries of health and agriculture of the Americas. In addition, television and radio announcements were produced to educate the public on the prevention of foodborne diseases.

In the area of human rabies transmitted by dogs, the frequency of cases continued to decline, falling from an average of 293 cases annually in the decade 1980-1990 to 168 in the decade 1990-1999; in 2000, this figure fell to 64, and in 2001, to just 42. In these last two years, 56% and 50% of the reported rabies cases, respectively, were transmitted by dogs and the rest by other animal species. Human rabies has virtually disappeared from the principal cities of Latin America, and during the period, cases occurred only in La Paz, Bolivia, and Port-au-Prince, Haiti.

The same downward trend has been observed for canine rabies. The average annual figure of 17,600 cases in the decade 1980-1990 fell to 6,600 in the decade 1990-1999, and to 2,086 in 2000. The preliminary data indicate 801 cases in 2001.

This decline has had a direct impact on cases of human rabies. Argentina; the southern region, the states of São Paulo and Rio de Janeiro, and the Federal District of Brazil; Canada; the countries of the English-speaking Caribbean; Chile; Costa Rica; Panama; the United States (including Puerto Rico); and Uruguay remain free of human rabies transmitted by dogs. In late 2000, Belize, Cuba, Dominican Republic, Mexico, and Peru achieved that status.

There is an information and surveillance system for equine encephalitis, coordinated by PANAFTOSA. The participating countries are Brazil, Colombia, Ecuador, Honduras, Mexico, Panama, and Venezuela—these countries, with the exception of Brazil, are at greatest risk for seasonal outbreaks of Venezuelan equine encephalitis. The system is complemented with diagnostic laboratories that provide antigenic characterization of the circulating strains. This information has been used to conduct mass vaccination campaigns, which have helped to decrease the risk of cases in humans.

In order to strengthen and reorient its technical cooperation programs, PANAFTOSA prepared a situation diagnosis of the programs for the control and eradication of tuberculosis and brucellosis in animals in 24 countries. It was successful in motivating all the countries to move forward with the eradication of these diseases, basing its arguments on the results of the efforts to eradicate foot-and-mouth disease. It also achieved consensus on the harmonization of strategies to eliminate hydatidosis in the Southern Cone.

The Bureau also cooperated with the countries to strengthen epidemiological surveillance of leptospirosis by improving the diagnostic capacity of several laboratories in the Region.

The Region of the Americas continues to be free of cases of bovine spongiform encephalopathy (BSE). To strengthen plans for prevention and epidemiological surveillance, the Bureau organized an Expert Consultation, attended by the heads of the countries' veterinary services, which issued recommendations to prevent the introduction of the disease.

The Peruvian Primatology Project celebrated its 25th anniversary. Since its creation, neoprimate species at risk of extinction have been protected by controlled harvesting and reproduction in captivity. Under this system, the Project has been able to

provide specimens for vaccine development—i.e., hepatitis A and B—and basic research in human physiology and nutrition.

4.3 SPO and National Health Plans and Policies

In the resolution adopting the SPO, the 25th Pan American Sanitary Conference urged the countries to take these orientations into account when formulating their national health plans or policies. In order to verify whether they had done so, a special questionnaire was sent to all the PAHO/WHO Representative Offices in the Region. The central concern was determining the extent to which the SPO had been considered in the processes leading up to the definition or modification of national health policies. Of course, the mere fact that national policies coincide with the SPO does not always mean that the SPO were taken into account in the drafting process.

As of April 2002, information had been compiled on 32 countries that had plans, policies, or policy proposals. Of these, five were in the process of preparing policy proposals, while 27 already had the policies or plans in place. Twenty-two of these 27 countries adopted their plans or policies between 1998 and 2002, and five had done so before 1998—that is, prior to the approval of the SPO.

The Bureau participated in 25 of the 32 processes that led to the sectoral policies, policy proposals, or proposed policy modifications in the countries of the Region—in three countries, before 1998, and in 22, after the SPO were approved.

In 15 of the 22 countries that adopted national policies after 1998 and in which the Bureau participated, the SPO were explicitly taken into account during the preparation or review of the policy proposals. The SPO were not necessarily reflected in all the texts of these policies, although they had been considered during the consultations, analyses, or discussion of options.

5. Lessons for the Future

The design and approval of the policies to guide the Bureau's technical cooperation with the countries is a complex but essential process for the future of health in the Region. The complexity of this process and the different situations and challenges in the Western Hemisphere imply the need to organize this process to ensure that the participation is broad and highly enriching. Below are some lessons on the definition, content, and implementation of the SPO derived from the experiences mentioned above and the exercise involved in the drafting of this report.

Concerning the preparatory process, the broadest possible participation is desirable. This will ensure that, in addressing the health problems of the Region, the final

product reflects the countries' diversity and the wide variety of opinions, suggestions, and viewpoints, in addition to serving as an opportunity to reach the necessary consensus and common goals. Since other entities whose work is related to PAHO's are operating in this field, it would be beneficial to have them participate in the early stages of policy-making in order to identify synergies and potential conflicts from the outset and act accordingly.

As to the content, it is recommended that a small, manageable number of technical cooperation objectives be selected to ensure that the cooperation focuses on achieving results predefined by consensus, owing to their epidemiological or ethical importance or the criteria employed in their selection. In any case, these objectives should be attainable but nevertheless constitute real challenges for the Bureau.

In selecting goals and objectives, it is very important to consider the feasibility of monitoring and evaluating them at the end of the period. Monitoring and evaluation should not be a difficult, complex task or impose an excessive burden on day-to-day work. Instead, it should be part of a natural process of institutional analysis and performance evaluation.

A salient aspect in the evaluation of the current SPO in some cases has been the difficulty of obtaining the necessary information under the conditions required to evaluate their fulfillment. Hence, there is a clear need for the countries and the Bureau to give priority to health information systems, focusing not only on the continuous production of timely data but on processing the updated information and making it available.

To continue to encourage the Bureau and other entities working in health inside and outside the Region to participate in the execution of the policies, adequate information and feedback must be provided on their establishment, execution, progress, and success, as well as their limitations, through the existing institutional mechanisms or others created for this purpose.

Finally, a factor that leads to enthusiasm and commitment to adhering to the SPO is knowledge about them. Similarly, a determinant in forging partnerships and developing cooperation networks to implement the policies is the degree of knowledge about them inside and outside the Bureau. Thus, it seems highly desirable and necessary for the SPO to be disseminated and promoted, not only among Bureau personnel but among all entities linked with public health.