HHS/SILOS 34

Development and Strengthening of LOCAL HEALTH SYSTEMS

Health of the Indigenous People

DIVISION OF HEALTH SYSTEMS AND SERVICES DEVELOPMENT
PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION

CONTENTS

PREFACE

The search to fulfill the goal of Health for All presents new and complex challenges. Today, 500 years after the meeting of the two worlds/continents, the Pan American Health Organization receives a new mandate to give priority to the health of indigenous people. This process must be based on the utmost respect for the intrinsic values of each culture, with the specific and precise objective to strengthen reciprocally the identities of each group, as a basis for the necessary changes.

It is within this spirit, that the Pan American Health Organization as the Regional Office for the Americas of the World Health Organization, has accepted the challenge of approaching the health problems of indigenous people within the policies and programs of action of the Organization.

Our expectation is to understand the problems of indigenous people in the Americas. On the basis of this understanding and comprehension, we will work with the representatives of the different indigenous population groups, to determine together the most adequate policies and plans for action, and thus contribute a real solution to the health problems that affect indigenous people.

In this process we must also strengthen the cultural identity and recuperate and use many important and profound lessons from the ancestral indigenous knowledge of our Americas. This ancient knowledge can and must be used to complement the scientific knowledge that modern technology has generated. We must work together with the leaders and representatives of many indigenous groups at the international and national levels, always keeping in mind the moral imperative and absolute necessity of reaching the specific communities. The goal of improving the health of indigenous people must also be incorporated into the Organization's strategy of development and strengthening of Local Health Systems in which decentralization and social participation are integral and fundamental elements.

In this document, PAHO presents Resolution V and Document CD37/20 of the XXXVII Meeting of its Directing Council, as a contribution to the dissemination and continued analysis and discussion of this process.

Carlyle Guerra de Macedo
Director

Resolution V. "HEALTH OF INDIGENOUS PEOPLES"
Adopted by THE XXXVII MEETING OF THE DIRECTING COUNCIL,

THE DIRECTING COUNCIL,

Having seen Document CD37/20 on the initiative "Health of the Indigenous Peoples of the Americas";

Taking into account the recommendations formulated by the participants at the Working Meeting on Indigenous Peoples and Health, held in Winnipeg, Manitoba, Canada, from 13 to 17 April 1993;

Recognizing that the living and health conditions of the estimated 43 million indigenous persons in the Region of the Americas are deficient, as reflected in excess mortality due to avoidable causes and in reduced life expectancy at birth, which demonstrates the persistence and even the aggravation of inequalities among indigenous populations in comparison with other homologous social groups;

Considering the aspiration of indigenous peoples to take charge of their own institutions and ways of life, the need for them to assert their own identity, and the need to respect their rights with regard to health and the environment;

Recognizing the unique contribution that indigenous peoples make to the preservation of ethnic and cultural diversity in the Americas, to biodiversity and a balanced ecology, and, most especially, to the health and nutrition of society;

Emphasizing the need to take a new look at, and respect the integrity of, the social, cultural, religious, and spiritual values and practices of indigenous peoples, including those related to health promotion and maintenance and the management of diseases and illnesses; and

Reiterating the importance of the strategy for the transformation of national health systems and the proposal for the development of alternative models of care at the level of local health systems as a valuable tactical resource and a fundamental requisite for dealing with current problems relating to insufficient coverage, inadequate access, and the lack of acceptability of health services on the part of indigenous populations,

RESOLVES:

1. To adopt Document CD37/20, which describes the initiative "Health of the Indigenous Peoples of the Americas," and the report of the Winnipeg Working Meeting containing the conclusions and recommendations on which the initiative is based.

2. To urge the Member Governments:

(a) To facilitate the establishment or strengthening of a high-level technical commission or other mechanism of consensus, as appropriate, with the participation of leaders and representatives of indigenous peoples, for the formulation of policies and strategies and the development of activities in the areas of health and the environment for the benefit of specific indigenous populations;

(b) To strengthen the technical, administrative, and managerial capacity of national and local institutions that are responsible for the health of indigenous populations with a view to progressively overcoming the lack of information in this area and ensuring greater access to health services and quality care, thus contributing to a higher degree of equity;

(c) To implement intersectoral actions, as appropriate in each case, in the areas of health and the environment both in the official sector and through nongovernmental organizations (NGOs), universities, and research centers that work in collaboration with indigenous organizations;

(d) To promote the transformation of health systems and support the development of alternative models of care, including traditional medicine and research into quality and safety, for indigenous populations within the local health system strategy;

(e) To promote the development of disease prevention and health promotion programs in order to address these problems and the most important areas relating to indigenous health in their countries.

3. To request the Director, within the limits of available resources:

(a) To promote the participation of indigenous persons and their communities in all aspects of PAHO's work on the health of indigenous persons;

(b) To identify technical cooperation resources within existing cooperation programs and provide support for the mobilization of additional resources at the international and national level for implementation and evaluation of the initiative "Health of the Indigenous Peoples of the Americas";

(c) To coordinate the regional effort by promoting the establishment of information and mutual cooperation networks between organizations, centers, and institutions whose activities are concerned with the health of indigenous peoples, organizations, and communities, enlisting the Organization's existing mechanisms, initiatives, and programs at the regional level and in the countries and also seeking the cooperation of other agencies and organizations;

(d) To expand the evaluation of living conditions and the health situation to include the indigenous peoples of the Region, with a view to gradually overcoming the current lack of information in this area at both the regional and the country level;

(e) To promote collaborative research at the regional level and in selected countries on high-priority health issues and health care for indigenous peoples.

(Adopted at the fourth plenary session, 28 September 1993)

HEALTH OF INDIGENOUS PEOPLES

The 111th Meeting of the Executive Committee reviewed Document CE111/20 concerning the health of indigenous peoples. The document and the proposed indigenous peoples' health initiative are the result of a recommendation of the Canadian Government to the Subcommittee on Planning and Programming in April 1992 when it approved plans for a hemispheric workshop to consider the health and well-being of the indigenous peoples of the Region. The consultation workshop, held in Winnipeg, Canada, in April 1993, included participants representing governments and indigenous peoples from 18 countries of the Region. Relevant information from the presentations, discussion and analysis at the workshop, as well as the recommendations, are incorporated into the document (see Annex), which also provides recommendations for future work by the Organization and the Member Governments.

The Executive Committee commented on the quality of the document, on the vision of the Director in sponsoring the initiative, and on the role of the Canadian government and of the Canadian Society for International Health in the successful organization of the workshop.

Members noted the growing interest of some countries and instances of ongoing and new efforts on behalf of indigenous groups, including the creation of government entities to address special needs. Poverty, high unemployment and lack of access to education and health services were among the important issues considered. The need to involve indigenous groups in the process at all levels and the role of PAHO as a catalyst for change were emphasized. It was suggested that the richness of the cultures of indigenous peoples can support the development of alternative models of health care delivery which include social communication and health promotion. Members endorsed the strategy of SILOS as appropriate considering the diversity among the groups within countries and throughout the Region.

1. INTRODUCTION

The Initiative on the Health of Indigenous Peoples of the Americas presented here has deep roots in the life of the countries, of the indigenous peoples, and of the Organization. Although it is recognized that in the different countries of the Region valuable initiatives have been launched with a view to improving the living conditions and health status of the indigenous peoples of the Hemisphere, these have usually been sporadic, short-term efforts. The Organization has provided its cooperation in several of these initiatives at various times.

In April 1992, in response to a proposal of the Delegation of Canada, which was echoed by the official delegations of Mexico, Ecuador, Peru, and Bolivia, the subject was included on the agenda of the 18th Meeting of the Subcommittee on Planning and Programming (SPP) of the Executive Committee of PAHO. In the presentation of this item, it was stated that the health of indigenous peoples was "perhaps the most technically complex and politically difficult health issue of the day" (PAHO, 1992). The members of the SPP, in response to this challenge and after their deliberations, were unanimous in underscoring the relevance and utmost importance of the issue, and approved the holding of a regional workshop in 1993, with the express recommendation that the meeting be participatory and allow for broad consultation with representatives of the indigenous peoples of the Americas. The Canadian Society for International Health (CSIH), the technical representative of PAHO in Canada, with the support of the Organization and other sponsoring agencies such as the International Development Research Center (IDRC), took responsibility for making the preparations and organizing the Indigenous Peoples and Health Workshop, which was held in the city of Winnipeg, Canada, from 13 to 18 April 1993. The results of this Workshop served as a basis for the formulation of the initiative on the health of the indigenous peoples of the Americas (Annex I).

2. INDIGENOUS PEOPLES AND HEALTH WORKSHOP, WINNIPEG 1993

2.1 Indigenous Peoples and Health Workshop

The Workshop was held in the city of Winnipeg, Manitoba, Canada, from 13 to 18 April 1993, and attended by 68 participants from 18 countries of the Region of the Americas. Also present were delegates from indigenous organizations, communities, and nations of the continent, official governmental delegations, and representatives of international agencies and nongovernmental organizations.

The Winnipeg Workshop was an opportunity for consultation at which a series of recommendations was prepared for the activities of PAHO, the Member Governments, and other organizations. These were then approved in plenary session by the participants. During the deliberations the following fundamental principles were identified and adopted which formed the basis for subsequent discussions and for the recommendations:

i) the need for a holistic approach to health;

ii) the right to self-determination of indigenous peoples;

iii) the right to systematic participation;

iv) respect for and revitalization of indigenous cultures; and

v) reciprocity in relations.

The Winnipeg Workshop also underscored the importance of approaching the health of indigenous peoples in its proper geopolitical and social context, taking into account the historical processes in progress.

2.2 The Geopolitical and Social Context of Health in the Indigenous Populations of the Americas

The term "indigenous population" refers to a diversity of peoples and cultures, without reflecting the special identity and idiosyncrasies of each people in particular. In order to understand the health of the indigenous peoples of the Americas, it is necessary to recognize their great ethnic and cultural diversity, as well as the complex interrelationships between peoples and cultures, identity and health.

It is significant that 500 years after the Europeans first set foot in America, there is persistent ambiguity and lack of agreement as to how to define the "indigenous" ethnic category (also called native, Indian, Amerindian, aboriginal, autochthonous, etc). The general tendency among the countries of the Americas has been to use changing definitions, or simply to omit ethnic classification from national population censuses, as well as from the ongoing registration of demographic information such as births, deaths, and migrations.[1]

Based on the estimates and sources available, the indigenous population of the Americas is approximately 42 million[2], distributed among some 400 ethnic groups. This represents around 6%

[1] The Workshop debated the acceptance of the term "indigenous," as well as the connotations of its usage, and agreed that "self-identification" as indigenous would be a fundamental criterion for defining the members of this group. ILO Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries (1989) recognizes as "indigenous" that distinct section of the national community which is understood to consist of: "...peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural, and political institutions" (Convention 169, Article 1).

[2] Jordán Pardo, III-FAO, 1990.

of the total population of the Region of the Americas and slightly less than 10% of the population of Latin America and the Caribbean (Annex II). In socio-demographic terms, this population can be broken down into two main clusters. The first cluster numbers approximately 18 million and includes the indigenous peoples of Mesoamerica, consisting mainly of the Maya of Mexico and Guatemala, followed in decreasing order by other ethnic groups living in Mexico, Belize, Honduras, El Salvador, Panama, Nicaragua, and Costa Rica. The second cluster, estimated at around 20 million, is made up principally of Quechua and Aymara who are concentrated today in the Andean countries, mainly in Bolivia, Peru, and Ecuador, and to a lesser degree in Venezuela, Colombia and Chile. These two clusters, in Mesoamerica and the Andean region, together make up the bulk of the indigenous population: around 38 million people, or more than 80% of the indigenous population of the Americas.

A third, scattered cluster, estimated at approximately 3 million people, includes a heterogeneous conglomerate of Indian groups and nations who today live in the subarctic regions and in various settlements in Canada (more than 350,000) and the United States (approximately 1.6 million). Also included in this cluster are the peoples of the Caribbean islands, Guyana, and Suriname; Venezuela, Brazil (especially the Amazon region); Paraguay and the Southern Cone, with Argentina and Chile.

Finally, in recent years, the migrant indigenous population has been growing in importance. The migratory group can be broken down into seasonal migrants, who generally follow the harvests, and a broad sector of permanent migrants, who are part of the ongoing trend toward rural-urban migration recorded in recent decades. The members of this group live and work today in several of the medium-sized and large cities of Latin America and the United States. In Central America, a significant proportion of the migrant indigenous population is made up refugees and political exiles displaced by internal conflicts or "low intensity" wars. Despite the growing number of incidents involving inter-ethnic violence and conflict in various parts of the world, including Latin America, very little attention has been paid to the consequences for the physical and mental health of the indigenous population.

The indigenous population is more severely affected by poverty than the rest of society throughout the continent. Living conditions, per capita income, employment, education, access to basic water, sanitation, and health services, housing conditions, and food availability for these people all fall below the national averages.

The indigenous population of the Region is passing through different stages of the acculturation process, in addition to feeling the impact of exogenous development models, the emergence of nation-states, and attempts at "national integration." All have been significant determinants in the disarticulation of the American indigenous cultures and the continuous devaluing of the indigenous identity, resulting in the marginalization of indigenous peoples. The issue of land ownership and use is a problem of utmost importance for the autochthonous groups of the Region. Land is central to life, culture, and history, and determines to a large extent the survival of indigenous peoples and nations, as well as their standards of living, health, and nutrition.

2.3 Health of Indigenous Peoples at the Beginning of the 1990s

The delegates of the indigenous peoples and organizations at the Indigenous Peoples and Health Workshop in Winnipeg emphasized the need to preserve the holistic approach inherent in the different health concepts of the indigenous peoples of the Americas. The common denominator in the most widely varying perspectives is the belief that health expresses dynamic relationships between inseparable components. These include the relationship between individual aspects (physical, mental, spiritual, and emotional) and group aspects (political, economic, cultural, and social), and between what is natural and what is social (Dion Stout, 1992; Rozental, 1988).

There is general agreement that Latin America and the Caribbean should be considered a multi-ethnic and culturally pluralistic region. However, the official sources in most of the countries of the Region have little or no information on the health status and living conditions of their indigenous peoples. As a rule, the epidemiological information available in the disease registries and the principal indicators of morbidity or mortality, birth rates, and life expectancy at birth are not disaggregated by ethnic or language group. However data and information are available from secondary sources that provide unmistakable evidence that the levels of health and nutrition of the autochthonous populations of America are several times below the national averages, reaching alarmingly low figures in some regions when compared with homologous reference populations.

The disease profile that characterizes the indigenous peoples of the Region features many of the same conditions that plague other socioeconomically disadvantaged groups (Annex III). Viral diseases (influenza, measles, dengue, poliomyelitis, arboviral respiratory diseases, hepatitis B, etc.) frequently explode into epidemics, particularly among groups with low levels of immunity. The prevalence of diseases endemic to tropical and subtropical areas (e.g. leishmaniasis, onchocerciasis, cysticercosis, Chagas' disease, etc.) remains high, and especially affects those human settlements where indigenous people are a majority. Other communicable diseases such as tuberculosis and malaria are on the rise again. Primary health care workers frequently report high incidence rates and lethality of cholera in indigenous populations, as well as a considerable increase in the

occurrence of sexually transmitted disease. The spread of AIDS poses an added and very grave risk for the indigenous people who live in areas with high rates of HIV infection.

The Winnipeg Workshop recognized that mental disorders and problems are a growing source of concern. Stress-related disorders, including violence toward others, depression, and suicide, as well as accidental and violent death, join abuse of alcohol, tobacco, and other substances as problems that show an increasingly high prevalence among young and adult indigenous people of both sexes. Protein-calorie malnutrition is a persistent problem, along with diseases stemming from deficiencies of micro-nutrients, especially iron, vitamin A, and iodine. Thyroid hyperplasia, cholelithiasis, obesity, and diabetes mellitus are frequently occurring conditions, particularly in the North American indigenous population.

The health profile of indigenous women is largely determined by the subordination they face on two fronts: in their couple relationship and in relation to the dominant sectors of local and national society. In addition to the illnesses described earlier, women suffer from problems related to reproduction (e.g. pregnancy at an early age; complications of pregnancy and delivery; iron-deficiency anemia, etc.) and others related to mental health (for example, sexual abuse and violence; alcoholism and drug abuse). And there are other more specific problems deriving from hazardous working conditions in agriculture, in the informal urban or service sector, and in industry.

Care during childbirth and the puerperium, disposal of the placenta, care of the umbilical cord, breast-feeding, and the care and feeding of indigenous infants are strongly influenced by the culture. It is in these areas that indigenous communities frequently experience difficulties in accessing the services that are available, and culturally rooted discrepancies appear between the medical services provided in the hospital and the home care that is administered by family members and traditional midwives.

From this perspective, health, health-disease processes, and health systems can be seen as cultural systems. The purely medical approach in health services delivery, in addition to failing to meet demand, is inadequate to deal with an epidemiological profile that is so complex and difficult to resolve. Moreover, traditional healing practices, while known to be efficient for the management of various culturally-bound afflictions and syndromes, still fall short when it comes to articulating an effective response to the "new" profile of diseases and health problems arising from the new context (for example, the AIDS threat, degenerative diseases, etc.). When indigenous peoples are exposed to these problems, they are unable either to produce the appropriate biological response (e.g. immunity) or to make the necessary sociocultural adjustment (for example, in traditional medical practices).

Finally, most of the countries do not have sustained initiatives and adequate financing to support the development of specific policies and programs on traditional medicine and indigenous therapeutic resources (for example, medicinal plants), or research and development of alternative models of care for indigenous populations or particular ethnic groups. With some exceptions, measures have not been taken at the official level to address this situation. A few of the Ministries of Health have established ad hoc groups or offices to oversee the health of indigenous communities in the national territory, usually as part of projects financed by bilateral agencies, philanthropic organizations or religious missions. The nongovernmental sector is promoting local initiatives in almost all the countries and many nongovernmental organizations (NGOs) and private foundations are actively committed to working with organized indigenous communities on development projects and efforts to improve living conditions in marginalized urban and rural areas. However, these initiatives are generally of limited coverage and duration.

The ethnic and cultural heterogeneity of the indigenous peoples makes it difficult or impossible to adopt single programs or universal health care models. This diversity, in which ethnic and cultural differences are accentuated, means that each indigenous people must be considered individually and that the emphasis must therefore shift toward the development of local health care strategies. Given that the morbidity profile of the indigenous population is different from that of other ethnic groups, proposals to provide differential care and actions appear to be the most valid. (SSA-INI, 1992). If local health systems are that set of processes that comprises all social activities in health at the local level, including but not restricted to health services delivery (PAHO 1993), the strategy of development of local health systems is a valid response to this health situation, particularly in areas with a diverse ethnic population or a significant proportion of indigenous inhabitants.

The Environmental Health Program's evaluation of the International Drinking Water Supply and Sanitation Decade in the late 1980s showed that although progress has been made, it has mainly benefited the urban populations of Latin America and the Caribbean. Moreover, most of the water supply systems have operational problems that hinder the process of continuous disinfection, while only 5% of the wastewater from sewerage systems receives adequate treatment. In the rural areas, almost half the population does not have access to clean water, and two-thirds do not have services for the disposal of excreta and refuse. The countries with the highest proportions of indigenous inhabitants also have the lowest percentages of their population covered by water supply and excreta disposal services (PAHO, 1990).

Water resources are particularly affected by the activities associated with the mining of metals (for example, copper, aluminum, tin, lead, etc.). Since mining activities frequently take place in high mountainous areas--such as the Andes--they pose their greatest risk to indigenous communities, which are the most directly exposed to the contamination. In the rural environment, contamination results from the use of chemical fertilizers, pesticides, and organophosphate insecticides, as well as from the disposal of toxic or radioactive waste. The problem has grown to the point where significant traces of substances such as DDT, as well as toxic levels of mercury, have been detected in surface water, food, and other basic nutrients necessary for survival, such as breast milk.[3]

In many countries of the Amazon Pact, especially in Brazil and in the Amazon basin of the Andean countries, the most important challenges to human and environmental health for many indigenous communities of the Amazon region are: persistent and uninterrupted over-exploitation of natural resources (wood, gold, oil, and other resources such as rubber in the past) in the "low" jungle by companies, independent miners, or "garimpeiros" [prospectors], together with successive waves of migration toward the "high" jungle, the presence of evangelizing missions, military incursions (associated with border conflicts, repression of subversive activities, etc.) or civil incursions to engage in illegal activities such as smuggling and drug traffic. In addition, the colonization of land, the construction of roads, dams, and hydroelectric plants, and other development projects have considerably increased the proliferation of vectors or intermediary hosts, with a consequent rise in the transmission of certain diseases among indigenous populations.[4]

Both the discussions and the final recommendations of the Workshop emphasized the interdependence between indigenous peoples and the natural environment, in particular stressing the importance of access to those natural resources that are considered essential for their health and survival (food and nutrition, shelter, water and energy sources, medicinal plants, etc.). In the conceptual framework of the indigenous peoples of the Americas, human beings are at one with the natural environment. Thus their cosmic view and their practices are constructed from nature, in which they live and from which they are inseparable.

[3] It is interesting to note that suicide by insecticide poisoning is reported to be frequent among indigenous groups, to the point that in some countries, the majority of deaths are from deliberate poisoning by organophosphate insecticides and not accidental exposure of agricultural workers (PAHO, 1990: 225).

[4] According to official sources in Brazil, for example, malaria prevalence is from two to ten times higher in communities near the Trans-Amazon highway, than in those located in more remote regions (de Koning, 1992).

In short, it is recognized that: (a) The health situation of the indigenous peoples is the end result of a historical process that has fostered dependency, loss of identity, and marginalization. (b) The indigenous peoples of the Americas therefore have a shorter life expectancy than homologous national groups, along with higher mortality and a distinct and changing morbidity profile that reflects their lower standard of living, social status, and level of acculturation, as well as their higher risk of disease and death. The health of indigenous peoples is largely determined by their environmental conditions and the new challenges posed by impoverishment and the modernization process. (c) Health, health-disease processes, and health systems for the indigenous peoples are cultural systems.

3. BASIS AND GUIDELINES FOR ACTION

The recommendations made by the delegates to the Winnipeg Workshop in response to the consultation launched by the Organization were in line with the stated principles and had the goal of contributing to joint resolution of the problems identified and analyzed in the description of the health situation. A synthesis of the recommendations is attached which tries to capture their original sense. Although the original text and the order of priority assigned by the Workshop participants have been modified in the drafting of this annex to the document, there have been no substantive changes in the content.

In the original text the recommendations were grouped into several sections: health policies, human resources, research, health programs and projects in indigenous regions and communities, and others covering the international and intergovernmental sphere (Annex I).

3.1 Basis for Action by PAHO

Taking into account the subjects covered in Annex I and the previous sections, and after an analysis of the Organization's background, strategies, and programs, several proposals for the future have been developed which comprise the policy foundations and guidelines for action in the area of health of indigenous peoples in the Region of the Americas.

Indigenous peoples must regain control over their own lives, of which health is only one aspect. A fundamental means of reaching this goal is to progressively restore power to the indigenous populations to decide on policies and strategies for their own development and to look for consensus with groups in power so that they can recover and have access to land and means of production, as well as to the resources necessary to satisfy their basic needs. They must regain control over the production of goods in general, and basic social services in particular, since this is

critical to their being able to break the cycle of dependency that has perpetuated poverty, racial discrimination, and marginalization among most of the Region's indigenous peoples.

In trying to attain these political goals it is important to reassess the value of indigenous wisdom and to strengthen the unique elements of indigenous cultures, recognizing that it is the members of these cultures who have the best understanding of their own people, their health and development needs, and the responses that need to be implemented. However, this should not be used to justify further isolation; rather, joint efforts should be promoted to overcome common obstacles (economic, political, social, cultural) through the forging of interethnic and intercultural ties that are based on reciprocity, mutual respect, and coexistence.

These premises set the course for the Indigenous Peoples' Health Initiative and present challenges of a complexity that is not addressed by the current mandates of PAHO/WHO and which is beyond the capacity of the health sector at the country level. These challenges also orient the policy foundations presented here.

The first challenge to the Indigenous Peoples' Health Initiative is to promote joint efforts and shared responsibility by PAHO and its Member Governments and the indigenous organizations and communities, in conjunction with national and international agencies and organizations (governmental and nongovernmental). In this regard, PAHO is in a position to offer its experience and resources as a catalyst to stimulate numerous efforts at different levels by a wide variety of actors.

The challenge posed by the lack of sufficient and adequate knowledge and information on the health of indigenous peoples in the face of a need for immediate action and impact must be met through the establishment of strategies that allow adequate knowledge and information to be generated during the action ("learning by doing"), as well as making it possible to systematically store up the knowledge and information gained through experience ("learning from both past and present experience"). The resulting knowledge should serve as a navigational chart to guide the Initiative and its proponents.

A third challenge arises out of the Initiative's inherent multidimensionality and diversity. The various dimensions of the Initiative reflect the concrete political, economic, social, and cultural realities that manifest themselves at every level, from individual and community to national and international. Recognizing diversity means formulating proposals that respond to particular situations and contexts which vary from country to country and region to region, and from one people to another. Accordingly, it is indispensable to simultaneously address all facets of the

Initiative at all levels, and to involve the entire Organization in this process, from the Headquarters to the Representative Offices to the countries themselves, placing special emphasis on local experiences and processes where actions of proven impact and concrete viability are required. In this way it will be possible to generate responses as varied and diverse as the situations and peoples involved, so that these experiences can build up a store of knowledge and conclusions that will form the basis for and help to stimulate numerous other processes and actions.

Finally, the underlying premise for the articulation of the general guidelines for action is the recognition that the indigenous peoples are not the problem, but rather those most severely affected by the urgent demands of the prevailing context which, in one way or another, impacts on all the peoples of the Region. In addition, these peoples are the possessors of a rich and diverse culture which is essential to our survival as a species, and to the preservation of life. Thus the ultimate goal of working together to solve this set of problems is not to help the indigenous peoples, but rather to help each other in order to achieve health for all.

Another aspect to be considered is the need to prioritize the Organization's work during this initial phase. For this purpose it is proposed that the efforts and guidelines for action be focused on those countries where the greatest need exists, as well as on those which show the strongest interest in and commitment to the Indigenous Peoples' Health Initiative.

3.2 General Guidelines for Action

Seven guidelines for action are presented below:[5]

3.2.1 *Health Promotion*

The Indigenous Peoples' Health Initiative is in principle a health promotion initiative. This is apparent when reviewing the doctrine behind this strategy as defined in the Ottawa Charter for Health Promotion, adopted by the First International Conference on Health Promotion, in November 1986 (WHO, 1986). The Ottawa Charter for Health Promotion states that "Health promotion is the process of enabling people to increase control over, and to improve, their health."[6, 7]

[5] These are consistent with Strategic Orientations and Program Priorities of the Organization.

[6] This same document underscores the importance of peace, shelter, education, food, access to basic services, drinking water and sanitation, income, a stable ecosystem, and sustainable resources. The Ottawa Charter, in stating

Health promotion was adopted at the XXIII Pan American Sanitary Conference in 1990 as a strategic orientation for the work of PAHO during the quadrennium that began in 1991. It was defined as "the sum activity of the population, the health services, the health authorities, and other productive and social services, aimed at improving the status of individual and collective health." Thus health promotion is a strategy for making the concept of health in development a reality (PAHO, 1991). Accordingly, the
health promotion strategy is a fundamental orientation to support the Indigenous Peoples' Health Initiative.

3.2.2 *Transformation of the Health Sector: Local Health Systems, Equity and Access to Health Care Services, Decentralization, and Community Participation*

The transformation of national health systems and the development of local health systems (Paganini et al., 1990) are valuable tactical resources in efforts to overcome current problems of deficient coverage, lack of access, poor acceptance and low health impact in the health systems and services for autochthonous populations. Community participation is one of the fundamental aspects of the local health system strategy, growing out of the recognition that it is essential to develop horizontal and symmetrical ties with indigenous organizations and communities, and to thus open the door to consensus among the different community actors at the local level. The effort to increase equity, through decentralization, intersectoral action, and participatory research, is extremely important to the implementation of the Indigenous Peoples' Health Initiative (PAHO/WHO, Document CD33/14; PAHO, 1990).

It is in the context of local health systems that the traditional wisdom of autochthonous peoples can be preserved and in turn articulated with institutional knowledge and efforts. Local health systems also provide a place where it is possible to measure the impact of different activities carried out in line with mutually agreed upon goals for concerted health and well-being. The

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the principles of health promotion, issues a call for equity as the sole means of closing the health gaps between countries and peoples (WHO, 1986).

[7] The Bogota Declaration on health promotion, known as "Promotion of Health and Equity" (Santa Fe, Bogota 1992), underscores the importance of the relationship that exists among equity, community participation, culture, development, and health in Latin America. The strategies and commitments adopted in Bogota by the representatives of the 21 participating countries are, as a group, of utmost importance to the Indigenous Peoples' Health Initiative. It is worth noting, for example, that in the Declaration, the countries commit themselves to stimulate a dialogue about different knowledge bases so that the health devlopment process can incorporate all elements of the Region's cultural heritage (Promotion of Health and Equity, Commitment 8, 1992).

development and strengthening of local health systems is the fundamental practical strategy to achieve health in the face of a diversity of situations and specific needs at the local level. The obvious choice for technical cooperation aimed at consolidating the Indigenous Peoples' Health Initiative is to provide support for these experiences, for exchanges within and between countries, for the mobilization of resources, and for efforts by other sectors and entities to support and strengthen the impact and viability of these efforts. This is also the most convincing argument for working to sensitize institutions at all levels so that they commit themselves to support greater equity in and access to health services and community participation.

3.2.3 *Regional Plan for Investment in the Environment and Health: Environmental Health, Preservation of Habitat, and Protection of Traditional Lifestyles*

PAHO's Regional Plan for Investment in the Environment and Health (PIAS) is a crucial initiative for indigenous peoples. It supports the mobilization of resources and efforts to improve their marginal status and provide basic services that guarantee a minimum level of well-being, as well as recognizing the traditional knowledge about the natural environment that these people possess.

Innovative strategies and culturally appropriate technologies also need to be developed in order to adapt water supply and basic sanitation programs to indigenous populations. It is also indispensable to draw upon, document, evaluate, and revitalize traditional knowledge and technologies that have to do with preservation of the habitat and adequate management of natural resources, as well as to document and evaluate the impact that development projects and activities to extract natural resources have on the environment and health of indigenous populations at the local level.

3.2.4 *Human Resources*

In line with the recommendations adopted in this area at the Winnipeg Workshop, activities are needed that are fundamentally oriented toward: (i) formulating educational strategies to train health professionals and health workers as part of the Indigenous Peoples' Health Initiative; (ii) providing support to training centers so that incentives are created to give indigenous people more access to professional careers, and curricula are adapted to help these people preserve their identity and maintain their commitment to their community of origin; and (iii) to draw upon experiences and initiatives in the Region to help the Member Countries generate strategies and incentives that will encourage health workers to work in indigenous communities.

3.2.5 *Evaluation and Monitoring of the Health Status and Living Conditions of Indigenous Peoples*

The Organization has accumulated substantial experience in documenting and evaluating health status and living conditions in almost all the countries of the Region. However, appropriate mechanisms are needed for the collection and utilization of information that encompass the perspective and support of indigenous organizations and communities.

It is therefore imperative to have basic information along with adequate and low-cost monitoring systems (e.g. using sentinel populations or selected samples) that will make it possible to periodically evaluate progress and impact in projects and interventions in autochthonous communities. Strategies and instruments for rapid assessment are also available which could provide a short-term solution to the lack of information on certain sectors and problems.

3.2.6 *Formulation of Health Policies for Indigenous Peoples and Legal and Ethical Issues*

The Member Countries need help in revising the macroscopic and sectoral policies that address or should address the specific health problems of the indigenous peoples in the country or in a specific region, taking into account the strong presence of indigenous identities and the reiterated proposal calling for national multicultural and multilingual states that welcome diversity and pluralism (PAHO/HSP, 1993). At the heart of these new policies is support for the preservation and reevaluation of indigenous peoples, and for attempts to promote new types of interrelationship between these peoples, the state, and the national society, including the so-called solidarity sectors (América Indígena, 1990).

It is important to move ahead in establishing cooperative arrangements with the Member Countries to support their identification of immediate selective actions for the development of health policies that can exercise a stronger impact on the health status of this population. The areas of policy that merit special consideration and action have to do with traditional practices and the utilization and preservation of medicinal plants.

In recognition of the effect, importance, and cultural value of traditional medical practices, legal questions are pursued with the specific goal of revising the pertinent legislation and legal codes in order to limit or reduce the provisions that discount or proscribe such practices.

With regard to the ethical principles that should guide research on human populations, gaps and ambiguities persist that are urgently in need of being addressed by the Organization, particularly in the case of research[8] involving indigenous populations.

3.2.7 *Health Programs, Areas, and Problems of Particular Importance*

The participants at the Winnipeg Workshop cited the importance of participatory research as a fundamental and important aspect of all the guidelines listed here. PAHO and the research institutions or centers at the country level should give priority to and promote research on the field of indigenous health and traditional medical practices.

Some of the problems that have a serious impact on indigenous peoples and thus require special attention include: i) various types of violence; ii) alcohol and substance abuse; iii) infectious diseases; iv) sexually transmitted diseases; v) problems related to contamination of the habitat and the work environment; and vi) malnutrition and micro-nutrient deficiencies. The programs that the Workshop participants mentioned as being of special note, in addition to those already mentioned, were: i) mental health; ii) health, indigenous women, and development; iii) communication for the health of indigenous peoples;[9] iv) food and nutrition;[10] and v) health of migrant populations, particularly transitory migrants in border areas.

The Organization, in coordination with public institutions, nongovernmental agencies, educational and research centers, and indigenous organizations, can serve as the catalyst for successful experiences carried out in the countries as part of the Indigenous Peoples' Health Initiative. It is important to note the central role played by the Representative Offices, which, working in coordination with the services and organizations in each country, can draw on experiences in progress, promoting and coordinating new experiences between institutions, while at the same time promoting activities under the Organization's Regional programs.

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[8] For example, ethnopharmacology, genetics, epidemiology, population studies, etc.

[9] It is important to develop, with broad participation by indigenous communities and experts at all levels, communication strategies in the areas of health and education, at all levels of action of the initiative on the health of indigenous peoples: from heightening of awareness among governements, institutions, and society at large to the dissemination of culturally appropriate information to, from, and between indigenous communities and their organizations and the professional and technical health sectors.

[10] This has to do not just with eating habits and traditional agricultural practices, but rather, and above all, with sources of income, land-holding and use, preservation and exploitation of the natural habitat, and the development of highly nutritious traditional food products.

3.3 *General Cooperation Activities*

Based on the analysis of the context and health status of the indigenous peoples in the Americas, the policy foundations and guidelines for action presented, and the recommendations of the Winnipeg Workshop, several general cooperation strategies and activities are proposed for the implementation of the Indigenous Peoples' Health Initiative 1993-1995. The Governing Bodies of the Organization will be asked to recommend strategies, lines of action, and new lines of cooperation for the countries.

It is felt that cooperation activities should be organized along two main lines: (i) participation by indigenous peoples in the leadership and management of the Indigenous Peoples' Health Initiative from the earliest stages; and (ii) a coordinated program of cooperation activities under the Indigenous Peoples' Health Initiative, to be carried out through the Organization's regular divisions and programs.

In principle, it is proposed to establish operations for interprogram coordination, resource mobilization, and technical support for the initiatives at the Regional level and in selected countries. Once these operations are established, support will be provided for meetings and workshops in the countries to promote networking so that basic information can be exchanged and ties established between official institutions and NGOs, collaborating centers dealing with related matters or Regional institutions, indigenous institutions, and indigenous organizations. There is an obvious need to collect basic information on the living conditions and health status of indigenous peoples in selected localities, so that, on the one hand, it will be possible to document and evaluate the current situation, and, on the other, to promote the exchange and circulation of information about indigenous health, traditional medicine, active projects and studies underway, etc.

The implementation of projects under the Indigenous Peoples' Health Initiative, at the local health system level in the selected countries, will involve indigenous organizations as participants, as well as human resources from the official and informal health sector. These are the levels where it is expected to formulate policies and strategies under the Indigenous Peoples' Health Initiative, as well as to experiment with different primary health care models that are socially relevant and culturally sensitive, and which promote the articulation of local resources, based on the principles of more equitable distribution and full community participation, which are at the heart of the local health system strategy.

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ANNEXES

ANNEX I

WORKSHOP ON INDIGENOUS PEOPLES
AND HEALTH

(Winnipeg, 13-18 April 1993)

RECOMMENDATIONS [11]

The recommendations of the Winnipeg meeting are as follows:

1. In response to the alarming health situation confronting some Indigenous peoples of the continent, the workshop recommends that PAHO and the Member Governments take immediate action to identify the priority areas and the neediest populations, in order to then declare a state of emergency in specific areas or communities. This should lead to special and priority attention to health problems and the improvement of living conditions at the local level. It is necessary to define at the country level, in consultation with the affected populations, strategies and programs for intervention designed to address the most urgent health problems, as well as to plan medium- and long-term actions.

2. PAHO and the Ministries of Health should establish a surveillance system to track the living conditions and health status of Indigenous peoples. Specific methods and indicators, as well as epidemiological instruments, should be developed for assessing this situation continuously and systematically. Mechanisms should be established that will enable Indigenous peoples to participate in deciding the kind of information to be gathered and the use it will be given.

3. The development of health projects and programs in Indigenous communities should be based on maximum and appropriate use of local resources and on active and systematic community participation in the process of planning, execution, and evaluation of these activities. PAHO and the

[11] It should be noted that these recommendations were drafted at the conclusion of the workshop in Winnipeg. Although the original wording and the order assigned by the participants may have been changed here, the basic content has not been modified. At the time this document was drafted, the final version of the recommendations had not been ratified as the six-week period the delegates had been given to examine them and submit comments or corrections had not yet elapsed.

Member Governments should ensure that in the execution of health programs and projects in Indigenous communities direct coordination is established with these communities and with grass-roots organizations. These programs should help to strengthen the self-government and autonomy of the Indigenous peoples.

4. Special priority should be given to women's health programs. Migrant Indigenous populations and those in border areas, particularly those subject to forced migration, should be the target of special health policies and programs.

5. PAHO and the countries will promote dialogue and exchange between programs of primary health care with the local health system strategy in areas with Indigenous populations for the purpose of adjusting the content of the programs to local cultures and adapting the activities to the real needs of the communities at the local level. This adjustment and adaptation should be done with the direct participation of the Indigenous peoples.

6. All health projects and programs in Indigenous areas should be built on respect for the culture, values, and traditions of the Indigenous peoples involved and should acknowledge geographic and social distinctions between communities.

7. In the definition of a new health care model, PAHO and the Member Governments should recognize that culture and intercultural factors are key determinants of the living conditions and the health of individuals and communities.

8. The countries should make an effort to train non-Indigenous health workers who serve in Indigenous areas to develop favorable attitudes of understanding and respect for the local culture, beliefs, and traditional medical practices. Health workers in remote and hard-to-reach areas should receive incentives and opportunities for adequate training and education.

9. Universities, centers of study and training, and the public sector should ensure quotas so that members of Indigenous communities have access to training programs for health workers. The criteria and the educational profiles of the candidates will be established with the participation of the Indigenous communities. In the training of professionals and health auxiliaries, emphasis should be placed on intercultural studies (cross-cultural health and medicine) in the curriculum.

10. International institutions and governmental agencies should recognize and utilize the experience of Indigenous peoples in the conservation and management of the environment and

natural resources. A joint effort should be made to defend Indigenous lands, improve housing and nutrition, protect the environment, and prevent environmental pollution.

11. PAHO and the Member Governments should strengthen policies for natural resource conservation and control at the country level, establishing the necessary regulations in order to prevent exploitation and destruction of medicinal plants and substances by pharmaceutical corporations and other interests, and to preserve biodiversity.

12. PAHO should actively promote regional and local initiatives that seek to articulate traditional and western medicine, promoting the exchange of experiences, as well as broader dissemination of information on the implementation and results of such initiatives. These exchanges should involve not only investigators, but also primary care workers and traditional healers or therapists and Indigenous organizations.

13. It is of fundamental importance that the countries, with the technical assistance and support of PAHO, initiate the revision of health legislation with a view to recognizing Indigenous values and traditional medical practices, seeking at the same time to limit or eliminate repressive or punitive measures against traditional healers or therapists.

14. PAHO should provide support and technical cooperation for the generation of knowledge and its dissemination in the field of Indigenous medicine and health, through collaborative research projects between countries, promoting and supporting meetings, networking, symposia, and special publications.

15. It is important that PAHO promote and support participatory research related to the health of Indigenous peoples. Research topics should be determined jointly with the local populations. Both the process and the results of research should be shared with Indigenous peoples at the local, regional, and national levels.

16. No research or action related to the health of Indigenous peoples should be promoted unless it is planned and conducted with the participation of Indigenous communities at all stages of the process. Research on Indigenous health should adhere to the international codes of ethics in force. In research on Indigenous peoples, a mechanism should be provided that ensures control by the affected populations.

17. The participants desire to emphasize the need to develop legislation that recognizes Indigenous health needs and entitlements and provides for adequate enforcement. It must also be recognized that without political will, legislation is useless.

18. Finally, the participants in the Workshop call on the international and intergovernmental community to do the following:

i) PAHO is requested to include the issue of Indigenous health on the agenda of the next meeting of the Ministers of Health of the Americas, as well as to propose its inclusion on the agenda of the next World Health Assembly.

ii) The United Nations task force on Indigenous populations is encouraged to promote the International Declaration of Rights of Indigenous Peoples.

iii) The Governments of the Region are urged to ratify and implement Convention 169 of the ILO.

iv) The Governments are also encouraged to implement the recommendations contained in Chapter 26 of Agenda 21, which emanated from the United Nations Conference on Environment and Development, held in Rio de Janeiro.

v) The Member Governments are urged to adopt the resolutions emanating from the UNICEF World Summit for Children, in particular those relating to the health of Indigenous children.

vi) The countries and the concerned agencies (e.g. UNESCO) are encouraged to take the necessary measures to restore, protect, and preserve the sacred Indigenous sites in order to prevent the loss of the cultural identity of Indigenous peoples.

vii) Finally, the participants at this Workshop strongly urge the international agencies, nongovernmental organizations, institutions, and governments to mobilize the economic resources necessary for the implementation of the recommendations emanating from the Workshop.

FOLLOW-UP

Several recommendations were made with a view to following up the resolutions adopted by the Workshop. Noteworthy among them are the following:

a) A commission of Indigenous delegates (from North, Central, and South America) to the Workshop should be formed to follow up on the actions agreed upon and support PAHO's efforts and those of the Governing Bodies of the Organization and to ensure that the recommendations are presented at the next Meeting of Ministers of Health of the Americas.

b) Workshop delegates from each country should present the recommendations to the Ministers of Health in their respective countries in order to support PAHO's work in this regard. In addition they will be responsible for presenting these recommendations at regional and world forums (e.g., the United Nations Conference on Human Rights).

c) A task force should be established to support and follow up on the actions taken in different countries on Indigenous health.

d) Indigenous lawmakers around the Region should be called on to put forward legislation in support of Indigenous health.

e) An information network should be established to help maintain contact between delegates (and other interested parties), with representation in every country.

ANNEX II

ESTIMATED INDIGENOUS POPULATION IN THE AMERICAS
Countries and Selected Territories
(by millions of inhabitants)

	COUNTRY	NATIONAL POPULATION	INDIGENOUS POPULATION	%
More than 40%	Bolivia	6.9	4.9	71
	Guatemala	8.0	5.3	66
	Peru	20.0	9.3	47
	Ecuador	9.5	4.1	43
From 5% to 20%	Belize	0.15	0.029	19
	Honduras	4.8	0.70	15
	Mexico	85.0	12.0	14
	Chile	12.0	1.0	8
	El Salvador	5.5	0.4	7
	Guyana	0.8	0.045	6
	Panama	2.2	0.14	6
	Suriname	0.5	0.03	6
	Nicaragua	3.5	0.16	5
From 1% to 4%	French Guiana	0.1	0.004	4
	Paraguay	3.5	0.10	3
	Colombia	30.0	0.60	2
	Venezuela	18.0	0.40	2
	Jamaica	2.4	0.048	2
	Puerto Rico	3.6	0.072	2
	Canada	25.0	0.35	1
	Costa Rica	2.9	0.03	1
	Argentina	31.9	0.35	1
From 0.01% to 0.9%	Brazil	140.0	0.3	0.20
	United States	245.0	1.6	0.65

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Inter-American Indigenous Institute, Data Bank, Mexico, 1992

ANNEX III

Principal Health and Disease Figures in the Indigenous Population in Selected Countries of the Southern Cone, According to Various Studies

Table 1. Principal data of health and diseases of indigenous peoples in selected countries of the Southern Cone

Country	Region or indigenous people	Date	Pathology or indicator	Rates	Type	Total Country
ARGENTINE (1)	Matacos, Chorotes, Chumupis and Tobas	1979-1980	Respiratory diseases	37.90%		
			Gastrointestinal diseases	15.00%		
			Skin infections	8.70%		
			Gynecological and	14.80%		
			Muscle-skeletal disorders	5.90%		
			Other diseases	17.70%		
CHILE (2)	Aymara	End of 1970 to early 1980	Chagas	14.10%	Index house infect.	
				12.50%	Serology +	
	Atacameños			33.80%	Index house infect.	
				10.00%	Serology +	
	Aymara	Early 1980	Hydatidosis	100	Per 100,000 inhab.	7
	Pehuenche (Community of Lonquimay)			48	Per 100,000 inhab.	7
	Pehuenche (women's population)	1968	Bocio	50.00%		
	Aymara (women's population of Parinacota)	1990	Syphilis	5.00%	Per 100,000 inhab.	7
		1990	Candidiasis	26.30%		
		1990	Trichomoniasis	3.70%		
	Rapa-nui	1992	Leprosy	26.10%	Serology +	
	Mapuche (n=405) (3)	1991	HTLV-1	0.70%	Serology + WB or RIPA	
		1991	HIV-1	0.00%	Serology + ELISA	
	Mapuche	1975-1980	Life expectancy	59	Years	
		1988		63	Years	71
	(Indigenous Community Selection)	1985	Infant mortality	45	Per thousand	20

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Table 2. Principal data of health and diseases of indigenous peoples in selected countries of the Andean Region

Country	Region or indigenous people	Date	Pathology or indicator	Number	Rates	Type	Total country
BOLIVIA (1)		1986	TBC			New cases	5941
	Dept. Santa Cruz and Chuquisaca (Population in risk)	1980-1983	Chagas		100% 30 to 45%	Index house infect. Serology +	26.30%
	Dept. Beni, Santa Cruz, Tarija and Chuquisaca	1981-1984	Malaria	47,222		Registered cases	
	Dept. Beni, Santa Cruz, Cochabamba, and La Paz	1981-1984	Yellow Fever	213		Registered cases	
	Dept. La Paz	1981-1984	Bubonic fever	78		Registered cases	
	La Paz (city), Cochabamba and Santa Cruz	1982-1984	Human rabies	26		Registered cases	
		1970-1980	Silicosis			Cases/year Deaths/years	12,000 363
		1976	Fertility rate				6.7
		1980-1985	Maternal mortality			Per 10,000	48
		1982	Unregistered births				57.60%
		1982	Unregistered deaths				77.40%
		1970-1975	Infant mortality (projection of CELADE)			Per 1,000	151%
		1985-1990					110%

(Continued)

Table 2. Principal data of health and diseases of indigenous peoples in selected countries of the Andean Region (Continuation)

Country	Region or indigenous people	Date	Pathology or indicator	Number	Rates	Type		Total country
	Quechua	1976	Infant mortality according		277.7%	Quechua		153.00%
	Aymara	1976	to mother language		238.8%	Aymara		
					186.8%	Spanish and other		
					125.6%	Spanish		
		1981	Causes of death in <5 years:					
			Gastrointestinal diseases	2,257				19.00%
			Respiratory diseases	2,211				36.70%
			Affections originated in the neonatal period	1,664				14.00%
			Other bacterial diseases	1,020				8.60%
			Viral diseases	743				6.20%
			Undefined signs and symptons	1,223				10.30%
ECUADOR	Quichua (Community of Humán)	1978	Undefined signs and symptoms		58%	Percentage of	Rates per	78.42
	Women's population		Diseases of S.N.C. and of sensory organs		18%	total morbidity	10,000	
			Gastrointestinal diseases		7.50%	Reported 2 weeks	inhabitants	2.79
	Children's population		Infectious and parasitic diseases		42%	before survey		38.42
			Respiratory diseases		18%			36.19
			Undefined signs and symptoms		24%			78.42
	Quichua (Community of Imantag)		Undefined signs and symptoms		41%			
			S.N.C. and org. of sense diseases		15%			
	Women's population							

(Continued)

Table 2. Principal data of health and diseases of indigenous peoples in selected countries of the Andean Region (Continuation)

Country	Region or indigenous people	Date	Pathology or indicator	Number	Rates	Type	Total Country
	Children's population		Mental problems		10%		5.43
			Infectious and parasitic diseases		48%		
			Respiratory diseases		22%		
			Undefined signs and symptoms		15%		
	(2) Quichuas of Chimborazo and Pichincha	1978-1980	Intestinal parasites				
			Nematodes:				
			Trichuris trichiura	51	23%		
			Ascaris lumbricoides	129	58%		
			Strongyloides stercolaris	3	1%		
			Cestodes:				
			Hymenolepis spp.	2	<1%		
			Protozoos:				
			Entamoeba histolytic	69	31%		
			Entamoeba coli	63	28%		
			Balantidium coli	5	2%		

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Table 3. Principal pathologies diagnosed in Yanomami area of Amazon region (Brazil), for indigenous peoples

Population of study	Paapiú 846	Catrimani 1,728	Demini 925	Ajuricaba 59	Tootobi 1,373	Marari 483	Marauiá 127	Surucucu 3,210	Xidéa 2,029	Homoxi 2,501	Parafuri 366	Auarais 2,764	Waikás 159	Ericó 239	Palimiú 494	Mujacai 837	Total 18,140
I.R.A.:																	
Light	69	349	112	-	107	50	-	157	119	128	16	153	1	39	68	159	1,527
Moderate	2	51	15	1	1	8	50	6	15	38	-	78	-	1	2	7	275
Grave	9	18	2	-	1	3	-	32	-	12	-	10	-	-	-	1	88
Gastrointestinal	26	154	118	3	6	87	2	61	225	80	116	13	20	36	2	61	1,010
Intestinal Parasites	85	227	59	13	88	33	12	577	221	253	73	211	7	38	6	229	2,132
Skin:																	
Scabiosis	121	6	58	24	29	46	8	57	184	120	59	12	13	13	9	8	767
Infections	24	55	36	-	13	14	1	130	39	53	9	3	3	9	5	25	419
Others	32	11	68	4	69	25	5	16	41	8	-	28	-	10	10	41	368
Conjunctivitis	12	66	175	-	104	138	17	121	173	65	18	70	6	31	2	101	1,099
Injured/ Traumatism	-	104	58	-	13	2	-	27	29	54	25	8	6	2	2	8	338
Leishmaniosis	2	-	-	-	7	-	-	10	-	5	-	6	-	3	-	2	35
TBC	1	2	1	-	6	1	18	-	1	18	-	2	-	4	6	6	66
Onchocercosis	-	1	-	-	7	-	-	2	-	7	-	3	8	-	-	-	28
Others	6	22	259	13	134	85	28	30	152	109	7	13	8	15	2	81	964
Malaria	308	228	34	15	531	54	44	886	1002	1447	362	987	124	48	180	243	6,493
Anemia	237	4	2	4	172	-	-	344	132	250	-	112	-	9	4	10	1,280
Espleenmegal	311	-	-	16	510	-	9	50	23	-	-	2	-	-	58	-	979
Malnutrition:																	
Moderate	96	20	-	2	27	4	1	288	35	159	71	110	1	2	8	2	826
Grave	6	-	-	-	-	-	-	36	3	34	8	2	-	-	-	-	89

Source: "Primeiro Relátorio do Distrito Sanitário Yanomami: Avaliação das Atividades e Diagnóstico de Saúde" Fundação Nacional de Saúde, Brasilia, 1991

Table 4. Principal pathologies diagnosed in indigenous peoples of the Amazon Region or tropical forest in South American countries

Country	Region or indigenous peoples	Date	Pathology or indicator	Number	Rates	Type	Total country
PARAGUAY (1)	Chamococos	1984	Tuberculosis (n=201)		2%	Baciloscop. +	0.52% (3)
			Parasitosis (n=650)		15.69%	Cases +	
			Diarrhea (n=656)		10.36%		
			Anemia (n=655)		8.70%		
			Syphilis		4.50%	VDRL +	0.37% (3)
	Angaité, Lengua, Sanapaná, Tobas-Maskoy		Tuberculosis (n=104)		6.50%	Baciloscop. +	0.52% (3)
			Parasitosis (n=592)		31.25%	Cases +	
			Diarrhea (n= 596)		6.54%		
			Anemia (n=621)		19.64%		
			Syphilis		1.60%	VDRL =	0.37% (3)
ECUADOR (2)	Communities of Napo and Pastaza (n=711 included settler population)	1978-1980	Intestinal Parasites				
			Nematodes:				
			Trichuris trichiura	639	90%		
			Ascaris lumbricoides	445	63%		
			Ancilostoma duodenalis				
			Necator americanus	246	35%		
			Strongyloides stercolaris	57	8%		
			Enterobius vermicularis	5	<1%		
			Capillaris spp.	1	<1%		
			Cestodes:				
			Taenia spp.	5	<1%		
			Hymenolepis spp.	2	<1%		
			Protozoa:				
			Entamoeba histolytic	135	19%		
			Entamoeba coli	52	7%		
			Balantidium coli	61	9%		
			Chilomastix mesnili	22	3%		
			Giardia lamblia	113	16%		
			Trichomonas hominis	2	<1%		

Table 4. Principal pathologies diagnosed in indigenous peoples of the Amazon Region or tropical forest in South American countries (Continuation)

Country	Region or indigenous peoples	Date	Pathology or indicator	Number	Rates	Type	Total country
VENEZUELA (4)	Territorio Federal de Amazonas:	1986	Birth rate	1,357	18.4 %	Per thousand	28.3%
	Yanomami (28.49%), Guajibo (21.28%)	1987	General mortality		3.4%		4.4%
	Piaroa (20.62%), Yequana (8.91%)	1984	Diagnostics in Hospital				
	Curripaco (4.76%), Bare (3.71%),		and				
	Baniva (3.42%), Piapoco (1.88%)		"Medicaturas Rurales"				
	Saxema (6.94%), Puinave (1.44%)		Influenza	2,155			
	Warekena (0.93%), Hotis (1.17%)		Tonsillitis	950			
	Yaberana (0.45%), Panare (6.98%)		Helminthiasis	713			
	Others (1.04%), Non specified (2.24%)		Anemias	666			
			Gastrointestinal	593			
			Gastroduodenal	540			
			Injuries	323			
			Mycosis	110			
			Piodermitis	108			
			Dysentery	92			
			Bronchitis	65			
			Diarrhea	61			
			Allergies	54			
			Accidents	48			

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2. Peplow, Daniel "Parásitos intestinales en la población de varias regiones del Ecuador: estudio estadístico" Boletín de la Oficina Sanitaria Panamericana, 93 (3), 1982
3. Rate of 1986 "Las Condiciones de Salud de las Américas", Publicación Científica No. 524, vol. II, Organización Panamericana de la Salud, Washington, D.C., 1990
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Table 5. Principal data of health and diseases of indigenous peoples in selected countries of the Mesoamerica Region

Country	Region or indigenous peoples	Date	Pathology or indicator	Rates	Type	Total Country
GUATEMALA	Indigenous peoples	1981	Infant mortality (1)	106	Per thousand	87 (2)
		1986		77	Per thousand	70 (2)
		1985	Infant mortality (3)	100-150	Per thousand	
		1990	Fertility rate (1)	6.8		4.4% (2)
		1989	Maternal mortality (1)		Estimated	20.2
		1987	General mortality (4):		Percentage according to	
			Household		place where death occurred	75.60%
			Hospital			19.10%
			Street			4%
			Institutional homes			1.30%
			Without medical care			67.20%
			With medical care			32.80%
			With certification (5)			92.90%
			Without certification			7.10%
		1985-1990	Life expectancy (1):	(6)		
			Men		Years	59.7
			Women		Years	64.4
	Santa María Cauqué	1974	Citomegalovirus (n=109 children) (7)	46.80%	In the first year of life	
	North zone		Malaria (4)	63.20%	Percentage of	
	South zone			22.90%	positivity	
		1988	Causes of infant mortality (4):			
			Diarrhea			23.80%
			Respiratory diseases			23.60%
			Malnutrition			4.30%
			Affections originated in the neonatal period			4.10%
			Hydroelectrolitc imbalance			3.20%

(Continued)

Table 5. Principal data of health and diseases of indigenous peoples in selected countries of the Mesoamerica Region (Continuation)

Country	Region or indigenous people	Date	Pathology or indicator	Rates	Type	Total Country
MEXICO		1988	Population growth		Percentage/year	1.80%
		1990	Life expectancy (8)		Years	70
		1984	Infant mortality			29.16%
		1985	Maternal mortality (9)			0.6%
		1983	General mortality			5.1
	Rural marginal zones (10)	1986	Digestive system diseases			
			(enteritis, amebiasis, helminthiasis)	38.20%	Percentage of total	22.47
			Respiratory system diseases		notified communicable	
			(IRA, influenza and pneumonia)	49.70%	diseases	16.91
			Tuberculosis	25		
			Malaria	69.7	Cases per 100,000 inhab (11)	
			Dengue	10.26		
			Trachoma	3.44		
			Onchocercosis	0.29		
			High pressure blood	275		
			Diabetes	148		
			Rheumatic fever	3.4		
			Cirrhosis hepatic	16.2		
			Scabies	560		
			Wooping-cough	1.39		
			Neonatal tetanus	0.36		
			Tetanus	0.21		
			Measles	8.28		
			Poisoning, accident and violence	1,582		

1. Ánalisis de la situación del niño y la mujer", UNICEF/SEGEPLAN, Guatemala,1991
2. Totals in non indigenous population
3. Minkowski, W. "Mayan Indian Health in Guatemala" West Journal Medicine 148:474-476, 1988
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5. Nearly 50% had medical certification, 34.1% from municipal authorities and 10.3% for personnel outside the health sector
6. Minkowski thinks the life expectancy for the indigenous peoples is 10 to 15 years less than the national average
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8. "Estado Mundial de la Infancia 1992", UNICEF
9. "La situación de la Mujer pobre en México", UNICEF México, 1990
10. "Diagnóstico de salud en las zonas marginadas rurales de México", Instituto Mexicano del Seguro Social, México, 1986
11. Rates per total inhabitants registered for Social Security in the "Programa de Solaridad Social por Cooperación Comunitaria IMSS-COPLAMAR"

Table 6. Prenatal and childbirth care for regions or indigenous people, in countries of the Region

Country	Region or indigenous people	Date	Pathology or indicator	Number	Rates	Type	Total Country
CHILE (1)	Mapuche	1988	Childbirth care:				
			Physician and traditional birth attendants		69%		
			Machi or healers		23%		
			Person without training		7%		
			Rural health auxiliary		1%		
BOLIVIA (2)	Total Country	1982	Institutional childbirth attendants (Ministry of Health and Social Security)	47,760		Percentage of distribution of childbirth care	18.90%
			Childbirth at home				80%
PERU (3)	Womens in rural area (12 to 49 years old)	1984	Prenatal care:			Percentage of	
	Highland sierra		Hospital		6.20%	distribution of	41.90%
			Health Center		1.60%	prenatal care by	1.70%
			Physician's office, clinic		0.70%	place	8.10%
			Home		90.80%		47.80%
			Others		0.70%		0.60%
	Forest		Hospital		7.90%		41.90%
			Health Center		1.40%		1.70%
			Physician's office, clinic		1.60%		8.10%
			Home		88.20%		47.80%
			Others		1%		0.60%

(Continued)

Table 6. Prenatal and childbirth care for regions or indigenous people, in countries of the Region (Continuation)

Country	Region or indigenous peoples	Date	Pathology or indicator	Number	Rates	Type	Total Country
ECUADOR (4)	Indigenous communities quichuas, highland sierra: Imbabura	1981	Birth at home: solo, husband, family, or traditional birth attendants (TBA's) Institutional: professional care		83% 7%	Percentage distribution of childbirth care	
	Bolívar		Birth at home: solo, husband, family, or traditional birth attendants (TBA's) Institutional: professional care		98% 2%		
	Indigenous communities quichuas. Forest: Pastaza		Birth at home: solo, husband, family, or traditional birth attendants (TBA's) Institutional: professional care		96% 4%		
GUATEMALA (5)	Rural areas	1989	Childbirth care: Traditional birth attendants		77%		
	Maya area		Traditional birth attendants		90%		
	Rural areas		Prenatal care:				38%
MEXICO	Total country (6)	1987	Prenatal care Childbirth care (institutional) Childbirth care (traditional birth)				62% 38% 14%

(Continued)

Table 6. Prenatal and childbirth care for regions or indigenous people, in countries of the Region (Continuation)

Country	Region or indigenous people	Date	Pathology or indicator	Number	Rates	Type	Total country
		1986	Childbirth care in rural hospital	39,949	22.70%	Percentage of	
	Rural population (7)		Consultation for pregnancy in			distoxic	
			Women under 15 years old	2,015	15.70%	childbirth	
			Perinatal deaths during pregnancy		87.40%		
			After childbirth care		3.70%		
			Maternal mortality:				
			After childbirth hemorrhages		16.99%		
			Other childbirth complications		15.44%		
			High blood pressure		8.11%		
			Puerperal sepsis		6.95%		
			Other fetal and placenta problems		6.56%		
			Retention of placenta and/or				
			Membranes without hemorrhages		5.41%		
			Other maternal causes		40.54%		

1. "Condiciones de vida de los pueblos indígenas: Estudio realizado en reducciones mapuches seleccionadas" Universidad de la Frontera/INE/Fundación Instituto Indígena/CELADE/Programa de Apoyo y Extensión en Salud Materno Infantil, Santiago de Chile, 1991
2. Pedersen, D., Betts, C., Mariscal, J., Torres Goitía, J. "Supervivencia Infantil en Bolivia: Situación actual y prioridades para la acción" Informe de Consultoría, USAID, La Paz, 1987
3. Fuente: Instituto Nacional de Estadística e Informática, "Encuesta Nacional de Nutrición y Salud (ENNSA), Lima, 1984
4. Coloma, C., Baruffati, V., Chela, T. "Maternidad e infancia en los Quichuas del Ecuador"" CIEI, Universidad Católica del Ecuador, Quito, 1981
5. Análisis de la situación del niño y la mujer", UNICEF/SEGEPLAN, Guatemala, 1991
6. "La situación de la mujer pobre en México", UNICEF, México, 1990
7. "Diagnóstico de salud en las zonas marginadas rurales de México" Instituto Mexicano del Seguro Social, México, 1986

Table 7. Nutritional situation in region or indigenous population, in country studies

Country	Region or indigenous people	Date	Indicator	Rates	Type	Total
GUATEMALA	Rural area	1989	Feminine goitre Iron deficit	22.60% 48% 21%	Prevalence In pregnant women In non-pregnant women	
		1978	Weight deficit Height deficit	40.60% 71.60%	Indigenous children Indigenous children	
	Sololá Totonicapán	1978	Moderate and severe malnutrition	64.60% 60.50%	In school children 6 to 9 years	37.40%
	Totonicapán, Jalapa, Zacapa, Escuintla, Amatitlán, Santa Rosa and Baja Veracruz	1990	Malnutrition in children under 5 years old (n=74,000) Moderate and severe	76.10% 41.20%	According to Waterlow classification	
MEXICO(2)	Rural area	1989	Malnutrition in children < 5 years old	41.50%		
	Zonas Mixteca and Cañada		Malnutrition in children < 5 years old Chronic malnutrition	66.40% 5.40%		
	Total country		Status nutritional (perimeter mesobraquial-height-age <5 years)		Percentage difference between areas well and poorly nourished	358.80%
	Rural area		Average consumption per capita Kilocalories Proteins		 Kcal./day Grams/day	 1,880 59.2
			Proteins of animal origin		Percentage difference between areas well and poorly nourished	111%

1. "Análisis de la situación del niño y la mujer", UNICEF/SEGEPLAN, Guatemala, 1991
2. "México, Diagnóstico de la situación alimentaria y nutricional", Consejo Nacional de Alimentación, 1992

Table 8. Water supply and sanitation in indigenous population or region of selected countries

Country	Region or indigenous people	Date	Indicator	Rates	Type	Total country
CHILE (1)	Mapuche	1988	Water supply:		Percentage of	85.97% (2)
			Open well	36%	population	
			Protected well	53.40%		
			Slope, river, stream	9.30%		
			Other	0.30%		
			Sewage disposal:		Percentage of	88.95% (2)
			Boxed well	90.20%	population	
			Latrine	0.50%		
			Toilet in house	0.20%		
			None	9.10%		
BOLIVIA (3)	Urban (Total country)	1976 (4)	Sewage disposal:		Percentage of	
			Sewer system		population	30%
			Septic bed			4%
			Well			14%
			None			52%
	Rural (Total country)		Sewage disposal:			
			Sewer system			0.30%
			Septic bed			0.50%
			Well			3.50
			None			95.70%
	Total country population		Water supply:		Percentage of	
			Access to public sewer system		population	39%
			Well			24%
			River, lake			33%
			Other			4%

(Continued)

Table 8. Water supply and sanitation in indigenous population or region of selected countries (Continuation)

Country	Region or indigenous peoples	Date	Indicator	Rates	Type	Total country
PERÚ (5)	Rural population Urban population	1988	Potable water supply		Percentage of population	22.31% 77.60%
	Rural population Urban population		Sewage disposal		Percentage of population	16.60% 55.0% (6)
ECUADOR (5)	Rural population Urban population	1988	Potable water supply		Percentage of population	36.97% 75.11%
	Rural population Urban population		Sewage disposal		Percentage of population	34.19% 75.24%
PARAGUAY (7)	Indigenous population total	1981	Water supply: Stream, river, lake Well, cistern Public tap Other	 68.50% 25.40% 5.90% 0.30%	Percentage of homes	
			Sewage disposal: Available Not available	 62.90% 37.10%	Percentage of homes	
BRAZIL (8)	Rural population	1984	Water supply: Access to public sewer system Wells, rivers not protected Others		Percentage of population, total country	 6.30% 18.75% 8.60%

(Continued)

Table 8. Water supply and sanitation in indigenous population or region of selected countries (Continuation)

Country	Region or indigenous people	Date	Indicator	Rates	Type	Total Country
	Rural population		Excreta disposal		Percentage of	
			Access to public sewer system		population, total	1.20%
			Septic bed		country	1.66%
			Latrine			10.56%
			Others (in rivers, lakes, etc.)			1.35%
			Unspecified			15.07%
GUATEMALA (9)	Rural population	1990	Potable water supply		Percentage of	42.60%
	Petén			15.50%	population, total	
	North-west			43%	country	
	North			25.10%		
	Rural population		Sanitation			51.60%
	North-west			54.60%		
	South-west			40%		
	North			53.90%		
MÉXICO (10)	Marginal rural zone	1988	Water connection in home		Percentage of	39.80%
			W.C. English type		homes	5.90%
			Septic bed			6.60%
			Latrine			24.70%

1. Condiciones de vida de los pueblos indígenas: Estudio realizado en reducciones mapuches seleccionadas". Universidad de la Frontera/INE/Fundación Instituto Indígena/CELADE, 1991
2. "Las Condiciones de Salud en las Américas" vol. 1: 232-233, Organización Panamericana de la Salud, Washington, D.C., 1990
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4. Source: Morales y Rocabado, 1987
5. "Las Condiciones de Salud en las Américas" vol: 232-233, Organización Panamericana de la Salud, Washington, D.C., 1990
6. Data insufficient
7. "Censo y Estudio de la Población Indígena del Paraguay 1981", Instituto Paraguayo del Indígena, Asunción, 1982
8. Source: IBGE, "Pesquisa Nacional por Amostra de Domicilios 1984", citado en IPEA "Bases para formulaçao de Políticas e Programas em Saneamento Rural" No. 2, Brasilia, 1989
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