directing council

PAN AMERICAN HEALTH ORGANIZATION

XXVII Meeting

regional committee

WORLD HEALTH ORGANIZATION

XXXII Meeting

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Agenda Item 10

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REGIONAL STRATEGIES OF HEALTH FOR ALL BY THE YEAR 2000

PREFACE

1. INTRODUCTION

The attached Document CD27/34.A of 13 August 1980 represents the American Region's initial contribution to the task of the WHO Executive Board Program Committee, which is to formulate proposed Global Strategies for HFA/2000 and submit its proposals in the form of a report to the 67th session of the WHO Executive Board for review and report to the Thirty-fourth World Health Assembly.

The Directing Council, at its XXVII Meeting, agreed to complement the strategies already developed by incorporating further contributions and constructive criticisms made by Member Governments during their review of this document.

The Directing Council has directed that this Preface be used as the mechanism to advise the WHO Executive Board Program Committee of its intention to develop further strategies directed towards the achievement of national, bilateral, multilateral, subregional, regional and global cooperation for achievement of the goal of Health for All by the Year 2000.

Accordingly, the Directing Council has established an Ad Hoc Working Group to prepare a complementary document, to be submitted by no later than 15 November 1980, to the WHO Executive Board Program Committee for its consideration and incorporation into its report on global strategies.

The complementary document, prepared by the Ad Hoc Working Group, should pay particular attention to the promotion of health in developing countries, with a view to reducing those disparities that detract from the achievement of the goal of Health for All by the Year 2000, in accordance wih the Alma-Ata Declaration and as an integral part of development and of the New International Economic Order (WHA33.24).

2. STRUCTURE OF THE COMPLEMENTARY DOCUMENT

2.1 The purpose is to prepare additional strategies, goals and targets to elaborate and complement the strategies contained in the initial document (CD27/34.A) in order to contribute to the development of the health sector and the achievement of the following objectives:

- The restructuring and expansion of the health services system to improve its equity, effectiveness and efficiency;
- The promotion and improvement of intersectoral linkage and cooperation;
- The further promotion and enhancement of regional and interregional cooperation.

These three objectives are designed to address the specific contribution of the health sector in reducing social and economic inequalities.

2.2 The Ad Hoc Working Group is requested to pay particular attention to development of targets in the following priority areas:

- Life expectancy
- Infant mortality
- Mortality in the age-group 1-4 years
- Immunization coverage
- Safe drinking water and waste disposal
- Access of the population to health services

These targets should establish the baseline to be achieved by every country in the Region.

2.3 Within this framework, the Ad Hoc Working Group will focus its deliberations on the contributions made by Member Governments during the debate of the XXVII Meeting of the Directing Council, as listed in section 2.4 and relate these to the framework established in Document CD27/34.A.

2.4 Complementary Strategies

Monitoring and Evaluation-Guiding Principles - The complementary document is expected to include the following elements:

- The conduct of epidemiological assessments of the achievements and failures of the Ten-Year Health Plan for the Americas for 1971-1980, to establish baselines for evaluation;

- On the basis of these analyses, the establishment of minimum, acceptable indicators of levels of health for the Region;

- The review of the health status of the countries in the Region against the minimum acceptable indicators, and rank them in relation to their need for health improvement;

- The development of mechanisms to set regional priorities, direct the resources of the Region to assist those countries that need help to reach the minimum acceptable level, and to avoid duplication of effort;

- The evaluation of progress, the readjustment of the baseline upwards, and the repetition of the process.

Health Needs of Island Communities - to reflect the unique problems associated with the delivery of effective and efficient Primary Health Care (PHC) in small island communities, with particular reference to the Caribbean.

Realignment of Research to PHC - to effect the realignment of research within the Region of the Americas to effect speedier resolution of critical health problems by establishing improved means for the identification of problems, their prioritization, their allocation to the research community and the allocation of resources for the research effort required.

Industrial Development - to make health and environmental protection integral elements of major industrial development activities, such as the development of major hydroelectric projects or the development of heavy industries.

Cost and Financing of Health Services - to encourage the development of new systems of financing and containing the cost of health services.

Dental Health - to foster prevention of dental caries through the fluoridation of municipal water supplies, where needed.

Methodologies and Standards of Health Care - to propose development of methodologies for the evaluation of health services and programs and for the normalization and accreditation of hospitals, clinics, and public health services, that would contribute to the development of national standards of health care.

Information Exchange - to foster the exchange of information within the Region (and between Regions) on recent advances and new modalities in Primary Health Care; and for the establishment of mechanisms for their evaluation as to their application in other countries so as to avoid needless duplication of effort in the development of effective PHC programs.

Health Facilities - to rationalize the need for health care facilities (of all levels of complexity) within the emphasis on primary health care and for their construction, modernization, and maintenance.

Coordination of External Aid - to reflect the necessity to bring about more effective coordination of external aid provided by multilateral agencies, private agencies, and through bilateral agreements; as well as the need to direct the resources available through external aid to areas of greatest need and national priority; and to coordinate the application of external aid between sectors of the national economy.

Preventive Health - to articulate more forcefully strategies for the prevention of disease and disability, particularly in rural and marginal urban areas, and the island communities.

Development of Human Resources - to promote development of human resources that would emphasize:

- Health care administration;
- Distribution of human resources in the health sector;
- Bilateral, subregional, regional, and global cooperation in the education, training, and development of human resources for the health sector;
- Recognition of emerging roles in the health sector including, for example, the use of nurse practitioners and dental therapists in PHC delivery;
- Training and use of traditional health workers in Primary Health Care.

Eradication of the vector of urban yellow fever

Prevention of physical handicap - to propose activities relating to blindness, deafness, and other disabilities conditions that affect individual capacity to function normally; and programs for the rehabilitation and assistance of handicapped individuals to reduce the need for their institutionalization;

Primary health care of the aged - to propose activities with particular reference to the special health needs of elderly women, directed towards the early recognition, treatment, and rehabilitation of physical and mental diseases to which this group is particularly prone.

Chronic respiratory disease - to alert the public to the dangers of smoking and the inhalation of environmental contaminants, many of which are the products of industrial production (e.g., coal dust).

Accident prevention - to educate the public in the prevention of accidents; and the introduction of regulations for the safety of the public (e.g., compulsory seat-belt legislation).

2.5 Further elaboration of priority components of coverage of health services program content in Document CD27/34.A, will include in particular:

Maternal and child health - programs directed toward the growing phenomenon of teenage pregnancy and the physical and mental damage to the health of the mother and infant as a result of early pregnancy.

Mental health - efforts directed to the growing phenomenon of teenage and young adult suicide.

Cardiovascular and degenerative diseases and cancer - proposals for the reduction of hypertension; and health promotion activities to emphasize the positive aspects of lifestyle that can reduce or prevent the onset of cardiovascular diseases and cancer (e.g., diet, exercise), as well as the negative aspects of lifestyle that encourage chronic diseases (e.g., cigarette smoking, obesity, alcoholism).

Food and Nutrition - establishment of goals for minimum acceptable protein and total calorie intake. The focus of external aid should be directed more towards the stimulation of local food production.

Occupational diseases and industrial hygiene - recognition of occupational health and safety in the work force, with particular attention to women.

3. CONCLUDING REMARKS

In summary, this preface highlights selected aspects of a Regional Strategy and mentions a variety of specific considerations which are basic elements in the collective regional approach to health for all by the year 2000. The document which follows provides much of the information base upon which the Regional Strategy must stand.

directing council

PAN AMERICAN HEALTH ORGANIZATION

XXVII Meeting

regional committee

WORLD HEALTH ORGANIZATION

XXXII Meeting

Washington, D.C.
September-October 1980

Provisional Agenda Item 10

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CD27/34.A (Eng.)
13 August 1980
ORIGINAL: SPANISH

REGIONAL STRATEGIES OF HEALTH FOR ALL BY THE YEAR 2000

In the World Health Assembly and the Governing Bodies of the Pan American Health Organization the Member Governments have undertaken jointly to define and develop national and regional strategies for attaining the goal of Health for All by the Year 2000. In addition, the Governments of the Region decided to undertake the evaluation of the Ten-Year Health Plan for the Americas 1971-1980 concomitantly with the formulation of those strategies.

To this end, and as part of the plan of work approved by the Executive Committee and the Directing Council of PAHO, 24 Governments have evaluated their national efforts to implement the Ten-Year Health Plan, and 22 countries have formulated national strategies.

As called for by the Governing Bodies, Document CD27/34 has been based on the findings of the evaluation of the Ten-Year Health Plan and on the information provided by the Governments on their national strategies for attaining the goal. In keeping with Resolution VII of the 84th Meeting of the Executive Committee of PAHO, the document has been examined, amended, and expanded by the Subcommittee on Long-term Planning and Programming of the Executive Committee.

The task immediately ahead is now the drafting of proposals for strategies involving joint action by several countries and for regional machinery for supporting both national and intercountry strategies. These proposals will constitute the basis for the discussions to be held at the XXVII Meeting of the Directing Council.

REPORT BY THE SUBCOMMITTEE ON LONG-TERM PLANNING AND PROGRAMMING OF THE EXECUTIVE COMMITTEE OF PAHO

REPORT BY THE SUBCOMMITTEE ON LONG-TERM PLANNING AND PROGRAMMING OF THE EXECUTIVE COMMITTEE OF PAHO

Joint Meeting with the Headquarters Program Committee to Examine the Preliminary Text of the Reference Document "Developments in the Health Sector in the 1971-1980 Decade and Strategies for Attaining the Goal of Health for All by the Year 2000"

24-25-26 July, 1980
Washington, D.C.

The Executive Committee of PAHO at its 84th Meeting adopted Resolution VII regarding the formulation of Regional Strategies for Attaining the Goal of Health for All in the Year 2000. The Resolution, in its operative part, indicated that Governments should be requested to analyze the Hemispheric proposals submitted for their consideration in a reference document that would be prepared by the Secretariat and that, in the context of their own national situation, they should formulate their regional strategy proposals.

In the same resolution, the Director was requested to submit the draft of the reference document to the Subcommittee on Long-Term Planning and Programming of the Executive Committee, before transmitting it to the Member Governments.

For that purpose, the Subcommittee, consisting of Representatives of Canada, Chile and Guatemala, Mr. Michel Careau, (accompanied by Mr. Ian Inglis), and Dr. Nelson Vargas and Dr. Carlos Luis De Paredes Soley, respectively, all of whom were members of the 84th Executive Committee, held a joint meeting with the Headquarters Program Committee of the PASB (HPC) on 24, 25 and 26 July 1980, in Washington, D.C. The meeting was attended by two observers from the United States of America.

Dr. Johna Cohen, a member of the Director-General's Office in Geneva, received a special invitation to participate in the discussions.

The Director of the PASB presented the preliminary draft of the reference document entitled "Developments in the Health Sector in the 1971-1980 Decade and Strategies for Attaining the Goal of Health for All in the Year 2000," emphasizing that the reference material was the result of contributions from 24 Member States on the Evaluation of the Ten-Year Health Plan for the Americas, and of the presentation by 21 Governments of the Region of their national strategies for attaining the goal of Health for All in the Year 2000.

It was stressed that the basic purpose of this meeting was to examine the preliminary draft in order to verify if it contained the appropriate information and considerations which might be useful to the Member States in formulating the proposals for regional strategies. It was also hoped that the Subcommittee would submit its recommendations to the XXVIII Directing Council in order to continue the process within the work plan approved at the 82nd Meeting of the Executive Committee (Resolution XIX).

It was decided to hold several joint sessions of the Subcommittee with the HPC. At the first session the Director made a brief presentation of the contents of the reference document. Among other things, he mentioned the background considerations which had been promoted by the Governments for the formulation of national, regional and global strategies.

The working draft consisted of two parts and three annexes. The first part contained a summary of the changes of the health situation and structure during the 1971-1980 decade given from a regional standpoint. It also dealt with the development of the national health services systems and environmental improvement, development of human resources, intersectoral linkages, financing for the sector and international cooperation. In addition, this part analyzed the major and most likely causes that have influenced the above processes.

The second part of the reference document presented a synthesis of the nature and ways by which the countries have defined the goal of Health for All in the Year 2000, as well as the main strategy and its components. This information was supplemented by an analysis of the probable socio-economic and demographic scenario for the next 20 years, and its implications for the development of the national and regional strategies to be adopted by the Member States. The annexes included information regarding the Drinking Water Supply and Sanitation Decade, the evaluation of the Ten-Year Health Plan for the Americas and finally, the national strategies from 21 countries which had been received by the Secretariat before 15 July 1980.

The Subcommittee felt that each member should review the document individually, due to the fact that the draft had just been prepared and it had not been possible to distribute it beforehand. Thus, the Group decided that, after the presentation by the Director, and having heard comments on some of the more general aspects, they would proceed with the analysis of the second part of the preliminary draft, which concerns national and regional strategies for attaining the goal of health for all in the year 2000.

The Director offered the Subcommittee all the necessary assistance from the staff of the Organization, as well as any reference material mentioned in the document.

Once the Subcommittee members had individually reviewed the Document, three working sessions were held. The material was first considered from a general viewpoint, followed by a detailed examination of the different sections.

During the general discussion the Subcommittee members pointed out the excellence of the document in terms of methodology and structure. They also gave their opinions on its approach and content, and recommended to extend and to further elaborate some of its parts.

The Director emphasized that any suggestions on changes would have to take into consideration the fact that the second part of the document, specifically the one regarding the goal of Health for All by the Year 2000, the strategy of primary health care and the systematization of the strategies, had been prepared relying exclusively on the information submitted by Member States on their national strategies.

A question was raised on whether the Subcommittee should prepare an additional document or a supplementary one, or whether it should concentrate its efforts in formulating suggestions to improve the reference document. The second alternative was chosen, which involved a careful review by chapters of the first part of the document and by paragraphs and sections in the case of the second part. Specific suggestions were made, on the understanding that the Secretariat would incorporate them into the final version of the reference document.

At the final working session, the Subcommittee emphasized the important contribution made by the Secretariat in analyzing and systematizing the national strategies, enabling it to present a reference document which contained the vast and complex information provided by the Member States.

Finally, the Subcommittee concluded that the reference document that had been prepared by the Secretariat on the basis of the material received from Member States, and with the changes recommended by the Subcommittee members as well as the ones suggested by the observers and PASB staff, represented an important working paper which the Member States should take into consideration in formulating the proposals for regional strategies. In addition, the Subcommittee decided to draft a Proposed Resolution on the regional strategies for attaining the goal of health for all in the year 2000, to be submitted to the XXVII Meeting of the Directing Council.

PROPOSED RESOLUTION

THE DIRECTING COUNCIL:

Bearing in mind that the Ministers of Health of the Region of the Americas at their III Special Meeting in 1972 established as the main objective the extension of health services coverage to all underserved populations and to those who completely lacked such services, and that at their IV Special Meeting in 1977 they ratified and recognized "Primary Health Care" as the main strategy to achieve total coverage in the sectoral context of national socio-economic development;

Having reviewed Resolution WHA30.43 in which the World Health Assembly resolved that the main social goal of the Governments and WHO should be "the attainment by all the people of the world by the year 2000 of a level of health that will permit them to lead a socially, economically and productive life;"

Considering that the World Health Assembly in its Resolution WHA32.30 endorsed the Declaration of Alma Ata, which recognizes that Primary Health Care is the key to attain health for all in the year 2000 as part of general development, in the spirit of social justice, and urged Member States to define and to put into practice national, regional, and global strategies to attain such goal;

Recognizing that according to Resolution XXVIII of the XXIV Directing Council of PAHO, the final evaluation of the Ten-Year Health Plan for the Americas should take place in 1980, and that given the commitment of the Governments of the Region to comply with Resolution WHA32.30 of the World Health Assembly on the formulation of regional strategies, the Executive Committe of PAHO at its 82nd meeting approved a plan of work contained in Resolution XIX, which joined in a single process the Evaluation of the Ten-Year Health Plan and the formulation of national and regional strategies;

Taking into consideration that attaining the goal for the year 2000 constitutes a dynamic process which creates new situations, and that therefore it is necessary to establish its evaluation and systematic monitoring in order to identify new problems and courses of action, and to adjust the strategies as part of this ongoing process;

Recognizing that there are problems which demand joint and synergic actions among several countries to ensure an efficient solution in the most effective manner, and knowing that the key to ensure the success of these initiatives lies on the evaluation by each country of its capacity to provide and utilize assistance, and on the national analysis and programming of external cooperation;

Considering that, in agreement with Resolution VII of the 84th Meeting of the Executive Committee, the Subcommittee on Long-Term

Planning and Programming revised the draft reference document prepared by the Secretariat, "Developments in the Health Sector in the 1971-1980 Decade, and Strategies for Attaining the Goal of Health for All in the Year 2000," incorporating modifications and elaborations to its contents in order to give the document greater consistency and coherence,

RESOLVES:

1. To approve the document "Developments in the Health Sector in the 1971-1980 Decade, and Strategies for Attaining the Goal of Health for All in the Year 2000" which contains the regional strategies to attain the Goal of Health for All in the Year 2000.

2. To confirm that Primary Health Care and its components constitute the basic strategies to attain the Goal of Health for All in the Year 2000 in the Region of the Americas, which include: the extension of health services coverage and environmental improvement; community organization and participation; improvement of mechanisms for intersectoral linkages; development of research and appropriate technologies, human resources, and the availability and production of critical supplies and equipment; the establishment of national systems for financing the health sector, and reorienting international cooperation.

3. To consider that the regional strategies contained in the document constitute the basis for the Organization's policy and programming, and that they represent the contribution of the Region of the Americas to the global strategies of WHO.

4. To recommend to the Governments which have not yet done so,

a) To adjust their health policies and plans and to make them compatible with national development policies and strategies, taking into consideration the implications of the national strategies adopted by them, and the regional strategies which they have agreed upon to attain the Goal of Health for All in the Year 2000;

b) That is reorganizing the health sector, to include community participation, and to improve the linkages among the different components, of the sector, relating them to other development sectors;

c) To develop the operative capacity of the health sector to maximize its efficiency, and the effectiveness of its activities, and to revise and to redefine its financing systems;

d) To analyze and program the human, physical and financial resources needed to comply with the national programs,

thus ensuring the maximum efficiency and social relevance in their utilization;

e) To direct the development of research and appropriate technologies in accordance with the needs of the national development process;

f) To improve national programming of international cooperation in the intersectoral context of each country;

g) To define within their external cooperation plans the areas in which TCDC may be applied, and to analyze and develop the national capacity in order to utilize and to provide cooperation, and to identify those problems whose solution might be facilitated by the joint action of the countries;

h) To develop their national planning, programming, information, control and evaluation systems; and

i) To review periodically their national strategies and to introduce the necessary adjustments within the context of national development.

5. To request the Director:

a) To prepare a plan of action for the development of the strategies agreed upon, including technical and administrative support measures, promotion of the identification and mobilization of resources, research promotion, development of appropriate technologies and information exchange, promotion of intra- and intersectoral coordination within a monitoring and evaluation system for the above strategies;

b) To submit this plan of action to the XXVIII Meeting of the Directing Council;

c) To promote the use of TCDC, including its information systems;

d) To develop the necessary instruments and to take the appropriate initiatives to strengthen the technical cooperation and international coordination functions of the Organization; and

e) To adopt the necessary measures to improve the programming, information, control and evaluation system in relation to the Organization's short and medium-term program of technical cooperation.

RESOLUTION VII

FORMULATION OF REGIONAL STRATEGIES FOR ATTAINING THE GOAL OF HEALTH FOR ALL BY THE YEAR 2000

THE EXECUTIVE COMMITTEE,

Having examined the Director's progress report on the work done by the Governments and the Secretariat of the Organization to evaluate the Ten-Year Health Plan for the Americas and to formulate strategies for attaining the goal of health for all by the year 2000;

Considering that, according to the plan of work approved at the 82nd Meeting of the Executive Committee, the Member Governments must jointly adopt the regional strategies that are to constitute the contribution of the Americas to the global strategies of WHO;

Considering that the Secretariat is preparing, on the basis of information furnished by the countries, a reference document of Hemispheric scope to provide the Governments with the background and other information they need for the formulation of their regional strategy proposals;

Cognizant that the national and regional strategies must be developed into national plans and programs and that these will serve as guideposts for the regional plans and programs; and

Bearing in mind that the national and regional strategies to be adopted by the Governments individually and collectively will determine the policies and priorities of PAHO's technical cooperation program,

RESOLVES:

1. To request the Governments to analyze the Hemispheric proposals submitted for their consideration in the reference material, and to formulate their regional strategy proposals in the setting of their own national situation.

2. To suggest to the Governments that they consider the possibility of adopting regional strategies in three categories: those common to the countries of the Region, those involving the participation of several countries, and those in support of the national and regional effort through the technical cooperation program.

3. To recommend to the Member Governments that these regional strategy proposals be examined and discussed during the XXVII Meeting of the Directing Council so that that Governing Body may adopt the strategies of the Region of the Americas for attaining the goal of health for all by the year 2000.

4. To urge Governments that have not yet done so to formulate their national strategies and forward them to the Director for inclusion in the working documents.

5. To request the Director to have the draft of the reference document prepared by the Secretariat examined by the Subcommittee on Long-term Planning and Programming of the Executive Committee, and subsequently transmitted, at the appropriate time, to the Member Governments.

6. To request the Director to continue to provide the cooperation which the Governments may require at this stage in the process.

(Approved at the fifth plenary session,
25 June 1980)

DEVELOPMENTS IN THE HEALTH SECTOR IN THE 1971-1980 DECADE

AND

STRATEGIES FOR ATTAINING THE GOAL OF HEALTH FOR ALL BY THE YEAR 2000

REGION OF THE AMERICAS

1980

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ANNEX I. NATIONAL STRATEGIES

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II. INTERNATIONAL DRINKING-WATER SUPPLY AND SANITATION DECADE

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INTRODUCTION

INTRODUCTION

The World Health Assembly decided in 1977 (Resolution WHA30.43) that the principal social goal of the Governments and the World Health Organization in the coming decades should be "the attainment of Health for All by the Year 2000 for all the peoples of the world at a level that will permit them to lead a socially and economically productive life".

The Declaration of Alma-Ata, adopted by the International Conference on Primary Health Care in 1978, emphasized that "primary care is the key to attaining the goal of Health for All by the Year 2000 as part of development in the spirit of social justice".

Subsequently, the World Health Assembly in 1979 (Resolution WHA32.30) urged the Member States to define and implement national, regional and global strategies for achieving the goal of Health for All by the Year 2000.

In the Region of the Americas, the III Special Meeting of Ministers of Health, held in 1972, adopted as the principal goal of the 1971-1980 Ten-Year Health Plan for the Americas, an increase in life expectancy. The development of national health service systems was adopted as the central objective for extending coverage to unserved or underserved rural and urban communities.

The IV Special Meeting of Ministers of Health of the Americas, in 1977 reaffirmed this goal and reviewed the experience accumulated since the start of the decade and confirmed the need and the possibility of achieving those objectives, and also declared primary health care within the intersectoral context of socioeconomic development to be the principal strategy.

In examining the results of the efforts made by the Member States, the XXIV Meeting of PAHO's Directing Council in 1978 adopted Resolution XXVIII providing for the final evaluation of the Ten-Year Health Plan for the Americas to be made in 1980.

Since the final evaluation will establish points of reference for future actions, and considering the commitment by the Governments of the Region to implement Resolution WHA32.30 of the World Health Assembly on the formulation of strategies, the 82nd Meeting of the Executive Committee of PAHO approved a Work Plan articulating into one single process the evaluation of the Ten-Year Health Plan for the Americas and the formulation of national and regional strategies (Resolution XIX) and establishing a timetable of activities. This Work Plan was examined by the Subcommittee on Long-term Planning and Programming of the Executive Committee of PAHO, and subsequently the XXVI Meeting of the Directing Council, in Resolution XXV, endorsed the Work Plan and requested the Member Governments to continue to follow it.

To assist the Governments in this endeavor, the Secretariat made available to the national health authorities a "Guide for Evaluating the Ten-Year Health Plan for the Americas" and a document entitled "Implications of the Global Goal of Health for All by the Year 2000 for the Countries of the Region of the Americas, Guidelines for Analyzing the Strategies Used for Formulating National and Regional Strategies," and furnished additional assistance as requested by various countries.

The Work Plan has been carried out by the Member States and by the Organization in the sequence and within the periods prescribed. As of 15 July 1980, 24 Governments had performed their national evaluations within the framework of the Ten-Year Health Plan for the Americas and 22 countries had formulated their national health strategies.

Pursuant to Resolution XXV of the XXVI Meeting of the Directing Council, which urged the Member Countries to formulate regional strategy proposals based on their own national strategies and those defined by other countries in a timely fashion so as to allow the XXVII Meeting to adopt strategies for the Region of the Americas, the Secretariat studied and codified the material supplied by the Member States on the evaluation of the Ten-Year Plan and the formulation of national strategies.

The information received on national strategies was analyzed by categories corresponding to the principal components of the primary health care strategies as recognized by the Governments. This made it possible to identify and systematize from a regional perspective the major common characteristics of the national strategies for attaining the goal of Health for All by the Year 2000. The earlier resolutions of the Governing Bodies of the Organization on regional strategies for the next decade were also taken into account.

The analysis of the material produced by the countries served as the basis for preparing this document, ~~the purpose of which is to~~ facilitate for Member States the task of formulating their proposals for regional strategies.

With this in view, regionwide information is provided on the problems which are common throughout the Americas and the similar characteristics of the national strategies for solving them. A continentwide view of the evolution of the health sector in the seventies is also included.

This document is comprised of two chapters and three annexes. Chapter I is an overview at the regional level, of the changes in health

conditions and the health structure during the seventies. It also includes an analysis of the evolution of national health services and environmental improvement systems, human resources, intersectoral coordination, financing of the sector, and international cooperation. The most likely and significant factors that have influenced these processes are also examined, and thus pertinent information on economic and demographic trends during the decade are included.

Chapter II contains a summary description of the nature of the goal and the ways in which the countries have expressed it, the principal primary health care strategy, and its key components. This information is supplemented by an analysis of the coming decades most probable socioeconomic and demographic scenario and its implications for the development of the national and regional strategies to be adopted by the Governments.

In order to facilitate country analysis and the preparation of proposals by the Governments, it was considered useful to design an outline, based on the information received in the Secretariat, categorizing the possible types of regional strategies. It is hoped that this outline will also be helpful in the study, discussion, and approval of proposals by the countries as a group. The outline includes three categories of strategies:

National strategies, with common characteristics, designed for the solution of problems in a given country but which also exist in most of the developing countries of the Region.

Intercountry strategies for resolving problems, the resolution of which requires, or will be facilitated by, joint actions among various Governments.

Support mechanisms, which are necessary to sustain the national and intercountry strategies indicated above and whose development is the responsibility of PAHO.

Identification of the national strategies with common characteristics and of the intercountry strategies is essential in order to orient and develop technical cooperation among developing countries. Intercountry strategies make it possible to solve certain problems that require concerted action by various Governments, and also make it possible, by taking advantage of intercountry complementarity, to maximize the feasibility and effectiveness of solutions to certain common problems.

The support mechanisms are designed to assure the necessary exchange of information and resources among countries, to foster the understanding of problems of Regionwide interest, and the development of new solutions, as well as to provide guidance to the Organization in the allocation of its resources in support of the national and intercountry strategies. These three types of strategies are the bases for adjusting and redefining the priorities, policies and strategies of the Organization and its technical cooperation program.

The annexes are as follows: I. The Information by Member States on National Strategies, II. The International Drinking Water Supply and Sanitation Decade, and III. Alma-Ata Declaration on Primary Health Care.

I. DEVELOPMENTS IN THE HEALTH SECTOR IN THE 1971-80 DECADE

1.1 SOCIOECONOMIC DEVELOPMENT TRENDS

1.1 SOCIOECONOMIC DEVELOPMENT TRENDS: DECADE OF THE SEVENTIES*

Analysis of certain salient aspects of Latin American and Caribbean development in the seventies makes it possible to identify factors that may decisively affect the economic and social development prospects of the Region in the coming decades and also influence the feasibility of attaining the goal of Health for All by the Year 2000 and eliminating poverty and extreme social inequalities.

In general, the seventies were a period of continuous economic growth in Latin America. In the first half of the decade the gross domestic product (GDP) of the Region as a whole increased at the very impressive rate of more than 7% per year. The rate then dropped to 4.5% a year when the effects of the world oil crisis began to be felt (1973-74). In 1979 the rate of economic growth again rose to approximately 6.5%, which is remarkable considering that it was achieved at a time when economic conditions in the world were more unfavorable than they had been during the first half of the decade.

The Region posted an average yearly economic growth rate of about 6% over the entire decade, somewhat below the minimum target established for the second United Nations Development Decade. However, the rate of population growth was higher than anticipated (2.7% per year on the average), so that the per capita product only increased by 3.2%, instead of the 3.5% predicted in the strategy for the Second Development Decade.

Included in these economic and demographic indicators for the Region as a whole are some very significant disparities among individual countries. More than half the countries were unable to achieve a 4.5% a year increase in GDP, and only six reached or exceeded the goal of 6%. The individual country economies experienced drastic structural and other changes. At the same time, the problems of balance-of-payments deficits, inflation, unemployment and underemployment, and social tensions were intensified in most of the countries.

To a considerable extent, the growth potential exhibited by the Region as a whole during the seventies reflects the constant if uneven development of the productive capacity of the continent and the bolstering of its economic defense mechanisms. Nevertheless, the linkage and interdependence of the Latin American economies with the rest of the world, and their sensitivity to expansion or contraction of the economies in the industrialized countries, continue to be very apparent.

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* This analysis is confined to the Latin American and Caribbean countries.

One of the salient features of Latin America's economic development during the seventies was persistent inflation particularly after 1973-74. This inflation was largely imported. During the first four years of the decade, consumer prices increased at an average rate of 21% in the Region as a whole. In the six subsequent years the rate of inflation more than doubled, and in no year was it less than 40%. In many countries the social effects of inflation were devastating. Real wages declined, imposing heavy sacrifices on the most vulnerable segments of the working population.

During the decade the Region's association with the industrial market economies was intensified in terms of exports and imports as well as investments and technology. Transnational companies played a predominant role in the strengthening of this association. The same may be said of the international private banking community, owing to the increasing importance it acquired as a source of external financing.

Transnational manufacturing companies are predominant in the most dynamic sectors of the economy of many Latin American countries. It is estimated that by 1975 total investments by the OECD* countries in Latin America amounted to 40 billion dollars, and that sales by transnational companies were more than double that amount.

During the past decade, fundamental changes took place in Latin America's external financing, both in terms of size and composition according to the origin of funds. The current account balance-of-payments deficits of the group of nonoil-exporting countries increased considerably, representing on the average, 3.2% of gross domestic investment, compared to 1.9% in the previous decade. External indebtedness climbed from approximately 10 billion dollars in 1965, to approximately 100 billion in 1979. Since a large part of this debt is represented by short- and medium-term loans obtained from private sources --frequently to pay for necessary imports--and since the nature of these loans is different from that of the official loans on longer terms represented by the earlier debt, a situation of extreme vulnerability has gradually come about. This has special significance for future social and economic prospects.

* Organization for Economic Cooperation and Development.

Imports increased substantially during the past decade. This increase was spurred to varying extents by industrial growth, the growth of privileged consumption, the growth of production, and growth of national investments. Spending on imports of petroleum by-products rose considerably in most of the countries, mainly as a result of increasing costs and the need for more abundant supplies.

Exports expanded considerably in total volume and became increasingly diversified during the second half of the seventies but, by and large, fell far short of the goal of an average yearly increase of 7% predicted for the Second Development Decade.

Most of the Latin American countries did not attain the targeted increase of 4% a year in agricultural production, though seven of them achieved, or even surpassed, it. The average yearly growth of approximately 3.5% for Latin America as a whole reflects a steady transformation of the agricultural sector in most of the countries and an increasing modernization and diversification of production and crops. The goal of 8% growth predicted for the manufacturing sector was also not achieved. Fluctuations in the rate of growth of the sector were generally sharper than those in GDP. The overall annual growth in the production of manufactures was 7%, but only three countries attained or surpassed the target of 8% annual growth.

The oil crisis that began in 1973 was the outstanding event from the standpoint of its effects on the economy of most of the countries during the decade of the seventies. For the oil-exporting countries increasing oil prices signify a very considerable growth in their export earnings and, to a varying extent, a stimulus to their overall economies. For countries that are not self-sufficient in hydrocarbons, the effects of the crisis are not limited to their balance-of-payments. It is in fact a crisis affecting their entire mode of development, a crisis that threatens one of their basic development premises: an abundant, cheap and secure supply of energy. This crisis is aggravated by the fact that the cost of other products essential for the development of the region--capital goods, fertilizers and synthetic products--continues to climb as a result of the increase in oil prices. Another aspect of the problem is that the increase in the price of oil exerts upward pressure on the world inflation rate and, therefore, on interest rates, making it even harder for nonoil-producing developing countries to obtain the loans and credits they need and to service the debt on such loans.

The enormous investments required for expanding and diversifying the energy resources of the Region over the next 20 years, and the funds that will be needed both to service foreign debts and to cover balance-of-payment deficits, will substantially reduce the funds available for social services, at a time when the Governments of the Region have decided to do away with the most blatant manifestations of inequality and poverty.

It can, therefore, be said that the oil crisis of 1973 and its aftermath "the age of inflation" have seriously aggravated a number of the weaknesses in the Region's social fabric and structure. Inflation has created new and deeper inequalities in the distribution of income in the majority of Latin American countries. The real income of large numbers of these countries' poorer citizens has declined dramatically and the gap between their levels of living and those of the more affluent groups has increased. In the next ten years, only the establishment and determined implementation of far reaching economic and social development plans offer the possibility of remedying a number of the basic imbalances which currently permeate society in the majority of the Latin American and Caribbean countries. Population growth and urbanization have accelerated since World War II, reaching a peak at the beginning of the eighties. This demographic growth and the changing distribution of the population, combined with significant shifts in the age structure, will have strong political, economic, social and health repercussions. There will be a substantial increase in the potential and effective demand for goods and services, especially if decisive steps are taken to bring about a greater degree of equity and reduce extreme poverty. There will also be considerable changes in the configuration, size and relative importance of the urban and rural strata and in the structure of their needs and expectations. The growth of the urban population will exert strong pressures on physical and social infrastructure in the cities, especially as regards education, housing, sanitation, and health. Problems of unemployment and underemployment will become more widespread and serious both in the rural and the urban environments, with increasingly greater repercussions on marginal employment in the urban centers. In practical terms, this growth in population could trigger an expansion and diversification of markets in the various countries if success is achieved in promoting a dynamic process of productive absorption of the labor force, thereby increasing per capita income and improving income distribution. The anticipated growth of the working-age population and the greater participation of women in the labor force will accentuate the problem of underemployment and unemployment both in the countryside and in the city.

It is therefore apparent that a new type of economic development, different from and more dynamic than the present type, will be needed. For Latin America and the Caribbean, an economic growth rate of 7.5% a year has been targeted by the United Nations. This represents an intensification of growth and a technological transformation of the Region's economy in comparison with trend projections which would indicate a growth rate of 6.3% per year for the area as a whole. Growth at 7.5% a year for the Region as a whole is necessary in order for the rate of employment to increase at the growth rates predicted for the economically active population. Thus even a growth rate of 7.5% a year will not resolve the Region's unemployment and underemployment problems.

It should also be pointed out in this respect that the national development plans of 15 countries in the Region, prepared halfway through the seventies, call for a combined arithmetic average rate of growth of 7.6% a year, their weighted average gives a growth rate of 8.6% a year. The goal of an annual increase of 7.5% established for the Region is also predicted on the basis of significant structural changes in the world economy, thus making possible the achievement of a substantial increase in export earnings. This further implies much faster and more extensive industrialization throughout Latin America. For instance, the manufacturing industry in general will have to grow at an average rate of 8.5% a year, whereas current trend projections would indicate a future growth rate of 7.5% a year.

The agricultural sector will also have to develop at a faster pace. The target is an average increase of slightly more than 4% a year. The rate in the past decade was only 3.6%.

During the next ten years the demand for imported goods and services is expected to continue increasing in Latin American and Caribbean countries with imports tending to rise at a slightly higher rate than GDP. Thus, the projections for the eighties envisage a growth of 8% a year in imports, so that by 1990 the value at constant prices of imported goods and services will be approximately two-and-a-half times the 1976-78 average. The greatest relative increase is expected to be in imports of capital goods.

The external purchasing power of the Region will have to expand much faster in the coming decade than it did in the past if projected import requirements are to be met. This growth in external purchasing power will have to come primarily from three sources: expansion and

diversification of exports; favorable shifts in the terms of trade; and foreign investment and financing. If the Region's terms of trade continue at the 1976 level, and if the ratio of foreign to domestic financing remains at approximately the same level as in the past decade, the export earnings of the Region as a whole will have to increase at virtually the same rate as imports, that is, 8% a year during the eighties. Net external financing is expected to represent an average of 2.8% of GDP, and be about one-fifth of the value of exports by 1990.

In the 1970's, trade with developed countries accounted for about two-thirds of local exports, whereas trade among the Latin American countries was somewhat less than 20%. The socialist (centrally planned) countries absorbed slightly less than 10%, and the developing countries 4% of total exports of Latin America and the Caribbean. Should this trend persist, achievement of the export targets for the next decade will largely depend on an increase in exports to the industrialized world. This will require a continued growth of these countries' external demand, as well as the elimination or an appreciable reduction of a number of the restrictions and policies which currently inhibit access to their domestic markets. A considerable growth in trade between Latin American and the Caribbean countries and other developing regions is also considered essential. Intraregional trade has increased in recent years, from approximately 8% of the total in 1970 to more than twice that amount today. Most of this trade is in intermediate manufactures and capital goods.

In recent years fluctuations and deteriorations in the Region's terms of trade have seriously affected the balance of payments, the orientation and magnitude of investments, and real income in most Latin American and Caribbean countries.

Obtaining the energy resources needed to sustain and accelerate economic growth in the Region will pose difficult problems in the coming decade. Consequently, despite what may be achieved in the way of conservation and substitutions, it may be presumed that the need for hydrocarbons will almost double during the decade and that consumption will rise by more than 7% a year unless substantial changes are made in economic and social development strategies.

While the Region as a whole is still a net exporter of oil to the rest of the world, the exportable balances have been diminishing as many countries have become increasingly industrialized and have begun to rely

on modern technology for their growth. To a certain extent, the recent discovery and increasingly intensive exploitation of Mexico's petroleum reserves is changing the Region's overall position as a net exporter of hydrocarbons, but currently there are only four other net exporting countries, whereas all the rest are importers and depend to a greater or lesser extent on foreign supplies.

Thus, in the seventies, the five oil-exporting countries of the Region improved their financial capacity and terms of trade and, as a result, their opportunities and prospects for a faster rate of economic growth, whereas the remaining countries, which are not self-sufficient, will have to confront a vastly different development scenario. In a few of the latter countries the dependence on foreign supplies and the position of hydrocarbons in the overall balance of payments is of relatively minor importance and will not pose undue obstacles to the implementation of the national economic and social development strategies. However, most of the oil-importing countries will find it necessary to make some radical changes in their strategies for the development of those sectors most heavily dependent on hydrocarbons as an energy source. The need to establish a comprehensive and cohesive plan of action within a framework of regional cooperation to help alleviate this important obstacle to economic and social progress is already receiving considerable high level international attention, as is the need for timely collaboration. The success or failure of these efforts may very well determine the future and well-being of the majority of the Region's citizens.

With regard to the structural employment problems alluded to earlier, these primarily stem from the inability of the production system to continually generate enough real, in the sense of being productive, jobs, mainly because of the rapid population growth, underutilization of labor, and the use of capital-intensive techniques. In addition, the pronounced technological differences in manufacturing units and the wide heterogeneity of industrial processes generate uneveness in productivity and, therefore, in income. In past decades the employment gap was filled by the "informal" sector,* which generated its own forms of supply and demand. There frequently appeared to be no widespread and serious

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* The "informal" sector encompasses all those people who are not in structured productive employment and who constitute the bulk of the population subject to underemployment or hidden unemployment.

problems of open unemployment, but the income gap* became wider between those who managed to enter the "modern" sector and those who were left outside.

Unemployment and underemployment and the distributive problems apparent in the Region, are the causes of the extreme poverty; these frequently contrast with the high rate of economic growth achieved in many countries.**

Faced with intensive and accelerating urbanization, most of the countries limited themselves to formulating housing policies and attempting to implement palliative and fragmentary measures that have no major impact on such problems as: regulation of urban land use, expansion of productive employment, adaptation services for urban migrants, food distribution, promotion of "self-help" in the "informal" sector, temporary employment in public works, urban and regional planning, and the like.

The middle-income sectors of the urban population profited most from these efforts of reform, which further accentuated the differences between different groups of city dwellers, even though on the whole these policies provided the urban poor with important advantages over the rural poor. At the same time, in the rural areas the palliative measures being applied as a substitute for agrarian reform (resettlement of farm workers, agricultural extension, community development policies) were also having little impact and were only being profitably utilized by a small part of the rural population which, in any event, did not for the most part achieve the levels of living prevailing in the urban areas. Usually the only practical effect of these palliative measures was to increase the differences among rural groups.

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* According to studies undertaken by the Program for Latin America and the Caribbean (PRELAC) the principal problem lies in the underutilization of the labor force in the agricultural sector and other sectors as well. Open unemployment only accounts for 20% of total unemployment.

** According to an ILO estimate, in 1972, 43% of Latin America's population (110 million) could be categorized as living in extreme poverty, out of which 70 million, or 27%, were indigent.

1.2 ANALYSIS OF DEMOGRAPHIC EVOLUTION

1.2 ANALYSIS OF DEMOGRAPHIC EVOLUTION

The population of the Region of the Americas and its dynamics have well defined characteristics which are expected to directly influence implementation of the strategy for attaining the goal of Health for All by the Year 2000. The purpose of the following analysis of population trends is to pinpoint those features that ought to be taken into account in defining national and regional strategies as well as in translating them into action plans.

According to the latest estimates of the United Nations [1/] at the beginning of the 1970's the Region of the Americas had 509 million inhabitants, accounting for 13.8% of the world's population. In the course of the decade its population grew by 21% (106 million) to reach a total of 615 million, representing 13.9% of the world's population. With the medium variant of fertility and mortality levels for the next two decades the Region's population will increase by 46% (283 million) to reach 898 million i.e., 14.5% of the World's population by the year 2000. This increase in the percentage of the world's population is accounted for mainly by the high population growth of Latin America and the Caribbean as shown in the following table:

		1970	1980	1990	2000
POPULATION (millions)	Region of the Americas	509.1	614.8	748.9	897.9
	Latin America and the Caribbean	282.7	368.5	478.4	608.1
	North America	226.4	246.3	270.5	289.6
Percent of WORLD POPULATION	Region of the Americas	13.8	13.9	14.2	
	Latin America and the Caribbean	7.7	8.3	9.1	9.8
	North America	6.2	5.6	5.1	4.7

1/ "World Population Trends and Prospects by Country, 1950-2000, Summary Report of the 1978 Assessment", United Nations, ST/ESA/SER.R/33, New York, 1979.

The prominent role of Latin America in the growth of the Region's population will be due to the fact that although the rates of natural growth in this part of the Region will continue to drop, it will remain among the highest in the world. Actually, as shown in the following table and Table 1, the average natural growth rates in the subregion (gross birth rate less gross mortality rate) is estimated at 27.1 per thousand inhabitants per year during 1970-80 and is expected to decline to 26.5 and 24.3 per thousand inhabitants, respectively, in the last two decades of the century.

REGION OF THE AMERICAS: POPULATION TRENDS, 1960-2000

	AREA	YEAR				
		1960	1970	1980	1990	2000
ESTIMATED POPULATION (thousands of inhabitants)	Total for the Region	414,084	509,120	614,825	478,902	897,669
	Latin America	210,384	276,694	361,546	470,404	599,036
	Caribbean Area	5,038	6,036	6,929	8,029	9,087
	North America	198,662	226,390	246,350	270,469	289,546
% OF TOTAL POPULATION OF THE REGION	Total for the Region	100.0	100.0	100.0	100.0	100.0
	Latin America	50.8	54.3	58.8	62.8	66.7
	Caribbean Area	1.2	1.2	1.1	1.1	1.0
	North America	48.0	44.5	40.1	36.1	32.3
		PERIOD				
		1950-1960	1960-1970	1970-1980	1980-1990	1990-2000
GEOMETRIC GROWTH RATES Yearly average (%)	Total for the Region	2.3	2.1	1.9	2.0	1.8
	Latin America	2.8	2.8	2.7	2.7	2.4
	Caribbean Area	2.1	1.8	1.4	1.5	1.2
	North America	1.8	1.3	0.8	0.9	0.7
GROSS BIRTH RATE Yearly Average for the Period (Live births per thousand inhabitants)	Total for the Region	33.2	30.5	27.2	27.3	25.1
	Latin America	41.1	39.0	36.0	33.9	30.6
	Caribbean Area	38.6	36.1	29.0	25.3	21.1
	North America	25.0	20.6	15.6	16.8	14.8
GROSS MORTALITY RATE Yearly Average for the Period (Deaths per thousand inhabitants)	Total for the Region	11.5	10.1	7.4	8.1	7.4
	Latin America	13.7	13.1	8.9	7.4	6.3
	Caribbean Area	8.9	7.3	6.9	6.2	6.0
	North America	9.4	9.2	9.1	9.3	9.6
NATURAL GROWTH RATE Yearly Average for the Period ((Per thousand inhabitants)	Total for the Region	21.7	20.4	19.8	19.2	17.7
	Latin America	27.4	25.9	27.1	26.5	24.3
	Caribbean	29.7	28.8	22.1	19.1	15.1
	North America	15.6	11.4	6.5	7.5	5.2

During 1970's the Region's population increased at an annual average rate of 1.90%, which is projected to rise to 1.99% during 1980's, owing mainly to the larger number of births resulting from the last "baby boom" generation in the United States, which will enter its reproductive stage in the 1980's. It is estimated that in the last decade of this century the growth rate of the Region' population will decline to an annual rate of 1.83%.

As will be noted in Table 1, the population of Latin America as a whole increased at an annual average rate of 2.71% during 1970-1980, a trend which if sustained, would lead to a doubling of the Subregion's population in 25.4 years. During the next two decades it is estimated that growth may continue to be high, with average annual rates of 2.67% and 2.45%, respectively, in which event the population will double in less than 26 years. It should be noted that only in the Southern Cone and the Latin American Caribbean will the rates of growth be less than 2% during the next two decades. The combined population of these areas, namely 69 million in 1980, account for 19.1% of Latin America's total population today and will increase during the next two decades at an average annual rate of 1.5% to a total of about 93 million by the year 2000, which will only be 15.5% of the Subregion's population. In the other areas of Latin America, with 292 million inhabitants in 1980, the population will grow in the next two decades at an annual rate of 2.8% to reach a total of 506 million inhabitants in the year 2000.

The countries and territories of North America have the lowest rates of population growth in the Region, having increased between 1970 and 1980 by only 20 million (from 226 to 246 million) or at an average annual rate of 0.85%. This rate will probably increase to some extent during the 1980's to 0.94%, but again decline in the last decade of the century to 0.68%. In 1980 this Subregion, with 246 million inhabitants, contains nearly half (48%) of the Region's population. It is estimated that by the year 2000 its population will account for less than a third after increasing over the 20 years at an average annual rate of 0.81% to reach a total slightly below 290 million in the year 2000.

The population of the Subregion consisting of the nonSpanish speaking countries and territories of the Caribbean is increasing at an intermediate rate of growth between North and Latin America. It grew from 6.0 million in 1970 to 6.9 million in 1980, at an average annual rate of 1.39%, which is expected to rise to 1.48% in the 1980's and then decline in the 1990's to 1.25% per annum, with the total population at the end of the century standing at 9.1 million or 1% of the Region's population, down from the 1.1% in 1980.

As discussed below, at the rates estimated for the seventies, it would take almost 26 years for Latin America's total population to double, but the most densely populated areas are those in which the doubling would occur soonest. It is predicted that by the year 2000 the required length of time of the popultion to double will not increase by more than two or three years.

The persistence of high population growth rates will be mostly due to high fertility rates expected in all the Latin American countries except those in the Southern Cone and in the Latin American Caribbean. A drastic shift in this situation would require significant changes from the present fertility rates, which are deeply rooted in social and cultural patterns that are difficult to modify in a short span of time. In any event, this is one of the reasons for the assumptions underlying the intermediate alternative in the estimates and projections prepared by the United Nations, which form the basis for the present analysis.

NUMBER OF YEARS IT WOULD TAKE FOR THE POPULATION TO DOUBLE IF THE RATES OF GROWTH ESTIMATED FOR EACH DECADE MATERIALIZE

Region, Subregions and Areas	1970-1980	1980-1990	1990-2000
Region of the Americas	36.7	35.1	38.3
Latin America	25.9	26.3	28.7
Andean Area	25.4	25.6	25.7
Southern Cone	48.3	51.7	61.5
Brazil	25.1	24.8	27.9
Central American Isthmus	23.1	24.0	25.1
Mexico	21.0	20.8	22.8
Latin American Caribbean	33.2	36.7	38.9
Caribbean Area	50.2	47.0	56.0
North America	82.0	74.2	101.7

In 1970 there were 64.3 million women in the 15-49 year age group in Latin America and the Caribbean. These women accounted for 23% of the total population (see Table 2). The number of women in this group has

risen to 86.5 million in 1980, representing 24% of the population. By 1990 the proportion is expected to rise to 25% of the total population, with the number increasing to 115 million. Subsequently, the proportion is predicted to drop to 24% by the year 2000, when the number will be 141.5 million. These women, who in 1975-80 accounted for an annual average fertility rate of 155.8 births per thousand women in the 15-49 age groups will reduce the rate by 9% over the next 10 years, and by 20% over the entire 20 years, to reach a rate 120.8 births per year in 1995-2000. Rates of this magnitude are still high in comparison with those in other regions of the World and are consistently more than double the rates in North America throughout the entire Twentieth century. This explains the high population growth in Latin America, and also the shift of the ratio between the growth rates of Latin America an those of North America from 1.2 to 1 in 1970 to 2 to 1 in the year 2000.

The maintenance of high growth rates in Latin America is explained principally by the persistance of high, though gradually declining, fertility rates, offset in part by the significant decline in mortality. It should be noted that the gross birth rate (Table 4) would drop from 37.3 births per thousand inhabitants during 1975-1980 to 34.4 per thousand in 1985-1990 and 29.3 per thousand in 1995-2000. In other words, there would be reductions of 7.7% and 14.8% in each of the last two decades of the century. This reduction is not very large and furthermore would be offset in part by the decline in gross mortality rates (Table 5), which would drop from 8.5 per thousand inhabitants in 1975-80 to 7.1 per thousand in 1985-90 and 6.0 per thousand in 1995-2000, representing reductions of 16 and 15%, respectively, in the last two decades of the century.

It will be noted that the populations of the areas of Southern South America and the Latin America Caribbean, which appear with the lowest birth rates in Latin America in 1975-80, will continue to grow at slower rates due to a continued downward trend in the birth rate and to the fact that general mortality rates are not expected to change in the Southern Cone and are expected to decrease only slightly in the Caribbean.

The decline in mortality rates will entail an extension of the average life span and of life expectancy at birth (see Table 6). Indeed, it is estimated that life expectancy at birth in the Region as whole will increase to 67 years in 1975-80, with individual levels of 63.6 for Latin America, 69.9 for the Caribbean, and 71.1 years for North America. In the next 20 years life expectancy at birth would increase by the last five-year period of this century to 71.1 years for the Region, 70.4 for

Latin America, 73.2 years for the Caribbean, and 72.5 years for North America. This situation, along with the decline in fertility, means that a larger number of people will be living for a longer period . It also implies significant changes in the age structure of the population, changes which are already apparent for 1970-80 and the effects of which in 1990 and 2000 are shown in Tables 8 to 10. The salient features of the shifts can be seen in the following table.

REGIONS AND SUBREGIONS		Percentage of the Population In Each Age Group			
		Under 15 yrs.	15-44 years	45-64 years	65 years and older
TOTAL FOR THE REGION	1970	36.6	41.6	15.7	6.4
	1980	33.5	44.6	15.0	6.9
	1990	33.4	45.1	14.4	7.1
	2000	32.2	44.8	26.0	7.0
LATIN AMERICA	1970	42.6	41.7	11.9	3.8
	1980	40.9	43.2	11.9	4.0
	1990	39.6	44.4	11.8	4.2
	2000	37.3	45.4	12.7	4.6
CARIBBEAN AREA	1970	44.9	37.2	13.0	4.9
	1980	38.7	43.2	12.7	5.4
	1990	33.4	48.7	12.1	5.8
	2000	29.3	51.1	13.5	6.1
NORTH AMERICA	1970	28.4	41.7	20.3	9.6
	1980	22.5	46.8	19.7	11.0
	1990	22.6	46.4	19.0	12.0
	2000	21.7	43.4	22.8	12.1

The percentage of the Region's population less than 15 years of age declined from 36.6% to 33.5% (by 3.1 percentage points) between 1970 and 1980. Most of these people have now progressed to the 15-44 year group, which grew from 41.4% to 44.6%. This change is due primarily to the significant decline in the percentage population under 15 years of age in North America (from 28.4% to 22.5%), which increased the percentage of population in the 15-44 group (from 37.2 to 43.2%). Similar changes in these percentages occurred in the Caribbean, but in Latin america the percentage of population in the under-15 group declined by only 1.5 percentage points (from 42.6 to 40.9%), which has largely been reflected in a proportional increase in the 15-44 year group (from 41.7 to 43.2%) and in the 65-and older group (from 3.8 to 4.0%).

The aging of the population is most apparent in North America, where the population 65 years and over will rise from 11% of total population in 1980 to 12.1% in the year 2000. In Latin America, on the other hand, the percentage of total population in this age group will increase between 1980 and the year 2000 from 4.0 to 4.6%. While in relative terms an increase of 0.6% in the proportion of population 65 years and older over a period of 20 years does not appear very significant, in absolute terms it represents an addition of 13 million elderly people (from 14.6 to 27.5 million). In 1980 it is estimated that the dependency ratio (ratio of the number of children below 15 and people 65 years and older to population of working age, from 15 to 64 years) was 68% for the entire Region of the Americas. That is, there were 68 economic dependents for each hundred people in working age. This ratio will decline to 64% for the Region by the year 2000.

For Latin America, the dependency ratio in 1980 is estimated at 82%, and the projected change in the age structure by year 2000 would reduce the ratio to 72%. By contrast, North America will shift from a ratio of 50% in 1980 to 51% in the year 2000.

The change in the age structure of the population involves a many-faceted problem affecting not only the health sector but all the other development sectors as well. For example, Latin America's present critical problem of providing employment for the nearly 200 million inhabitants of working age is potentially even more serious considering that by the year 2000 the working-age population will increase by 148 million. This problem is further complicated when consideration is given to the fact that the present working force is predominatly male, and that women are expected to enter the labor market in much larger numbers during the next two decades.

One of the most striking changes in the Region's demographic patterns, especially in Latin America, is the geographic redistribution of the population. In 1970 the urban population of the Americas, as defined by each country, was 330 million, representing 64.8% of the total population (see Table 11). By 1980 the urban population had increased to 430 million, representing 70% of the total population. The respective figures for Latin America and North America for the same years are 57.6% and 74.2% in 1970 and 64.5% and 78.8% in 1980. According to current projections this trend will continue because of rapid urbanization and, as a result, the percentage of urban population in the year 2000 will be 78.5% (690 million) in the Region as a whole, 74.9% (435 million) in

Latin America, and 86.4% (250.2 million) in North America. This means that in 1980 nearly two out of every three people in Latin America are living in urban areas and by the year 2000 the ratio will rise to three out of four.

These figures are thought-provoking and have particular significance for the health sector in Latin America, which has shown inclination to consider the problems of the rural areas. More health care will have to be provided for an urban population which, in the next 20 years, will increase by 60% to 690 million in the Region as a whole. In Latin America alone, however, the urban population will increase by 68% over the same period, from 233 million in 1980 to 435 million in the year 2000. The growth in the relative size of the urban population of Latin America implies a commensurate reduction of rural population, which will drop from 35.9% in 1980 to 25.1% by the year 2000. This should not be taken to mean that the rural population will shrink in absolute numbers: on the contrary, it will continue to grow, though at a slower rate, from 128 million in 1980 to 164 million in the year 2000.

The growth of the population in the Region has increased the population density from 12 to 15 inhabitants per square kilometer between 1970 and 1980, and this density is expected to reach 21 inhabitants per square kilometer in the year 2000 (see Table 12). The most densely populated countries and territories are the Caribbean islands and some of the countries in the Central American Isthmus. In the other mainland countries the problem is localized in certain areas where densities are very high, in contrast with others that are virtually uninhabited, because of different settlement patterns in each country. The major problem does not lie in the density of the population as a whole but in greater or lesser concentration of the population. There are countries where the density is low but which have a high degree of concentration, and there is the striking phenomenon of countries with high rural as well as urban densities, but a relatively low overall population density.

Some differences between the urban and rural populations are well known. For example, while the ratio of male to female population is 1 to 1 in Latin America, according to estimates for 1980 the ratio in the urban areas of the subregion is 96 males per every 100 females, but in the rural areas there are 108 males for every hundred females. Projections for the year 2000 indicate that this ratio should persist in rural areas and rise to 98 in the urban areas. As frequently happens in such cases, the ratio of males per hundred females tends to decline with age. This is illustrated by the following figures for 1980 and the year 2000 for Latin America:

RATIO OF MALES PER 100 FEMALES, BY MAJOR AGE GROUPS,
IN THE RURAL AND URBAN POPULATIONS
LATIN AMERICA, 1980 AND 2000

Age (years)	Urban		Rural	
	1980	2000	1980	2000
Total	96	98	108	108
Under 15	101	103	104	104
15-44	96	98	111	111
45-64	90	92	112	113
65 and older	77	79	107	110

Another important and, of course, well-known difference is the one between the age structures of the urban and rural populations. This is illustrated by the following table for Latin America:

AGE STRUCTURE OF THE URBAN AND RURAL POPULATION OF LATIN AMERICA,
BY AGE GROUPS, 1980-2000

COUNTRY OR AREA	Place of Residence	1980				2000			
		Under 15 yrs.	15-44 years	45-64 years	65 and older	Under 15 yrs.	15-44 years	45-64 years	65 and older
LATIN AMERICA	Urban	38.7	44.8	12.5	4.4	35.8	46.3	13.1	4.8
	Rural	43.7	41.3	11.2	3.8	42.8	42.0	11.3	3.9
1. Andean Area	Urban	40.0	46.2	10.6	3.2	35.8	48.0	12.3	3.9
	Rural	45.3	40.1	11.0	3.6	41.4	42.3	12.2	4.1
2. Southern South America	Urban	28.3	44.8	18.8	8.1	25.7	45.7	19.2	9.4
	Rural	38.6	41.8	14.1	5.5	36.6	43.0	14.3	6.1
3. Brazil	Urban	38.7	45.0	12.6	3.7	35.7	46.2	13.5	4.6
	Rural	46.4	40.2	10.4	3.0	43.3	41.6	11.3	3.8
4. Central American Isthmus	Urban	40.7	44.6	11.1	3.6	36.9	47.1	11.8	4.2
	Rural	47.3	40.4	9.6	2.7	43.1	43.3	10.4	3.2
5. Mexico	Urban	44.1	42.7	9.7	3.5	41.5	44.8	10.3	3.4
	Rural	47.9	39.2	9.4	3.6	45.2	41.4	9.9	3.5
6. Latin American Caribbean	Urban	34.3	46.0	13.7	6.0	30.1	48.3	15.5	6.1
	Rural	30.1	48.3	15.5	6.1	42.7	42.0	11.2	4.1

The median age of Latin America's population increased from 18.5 to 19.3 year between 1970 and 1980 and is projected to reach 21.3 years by the year 2000. That of the urban population rose from 20.0 to 21.1 years between 1970 and 1980 and is expected to increase to 21.1 years by the year 2000. The rural areas tend to have younger populations. In 1970 the rural population had a median age of 16.5 years; by 1980 it is estimated that the median will rise to 17.1 years, and by the year 2000 to 18.8 years.

The process of urbanization in Latin America has some unique characteristics. In 1970, 57.2% of the urban population was living in 165 cities with 100,000 inhabitants or more. Of these cities, 17 had more than a million inhabitants, and the population of four exceed five million. By 1980 the proportion of the urban population living in cities with 100,000 or more inhabitants had risen to 63.5%, that is, 147.6 million people living in 230 cities, of which 25 had passed the million inhabitant mark and five had more than five million inhabitants. According to certain hypotheses concernig the growth and concentration of population by the year 2000, 72.3% of the urban population in Latin America, that is, 324 million people, will be residing in 437 cities with 100,000 inhabitants or more, of which 47 will have more than a million inhabitants and 10 will have more than five million (see Tables 13, 14 and 15).

The magnitude of the problems inherent in such concentration of population is extremely difficult to envisage but suggests certain courses of future action for the health sector in organizing environmental sanitation and health services. Therefore, the demand for such services in the future will be for greater than the current demand and even at the current level, demand is not being adequately fulfilled.

Table 16 illustrates one of the results of urbanization and lists the 50 largest cities in the world between 1960 and the year 2000*. Nine of these cities will be located by the end of the century in Latin America, notably Mexico City, which will become the largest urban conglomerate in the world, with more than 31 million inhabitants.

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* Population Division, Department of Economic an Social Affairs of the United Nations Secretariat, "Trends and Prospects in the Population of Urban Agglomerations 1950-2000, as assessed in 1973-1975". ESA/P.WP.58, November 1975.

TABLE 1

ESTIMATED POPULATION AND MEAN ANNUAL GROWTH IN EACH AREA, COUNTRY AND SUBREGION OF THE REGION OF THE AMERICAS

1970-2000

AREAS, COUNTRIES, AND SUBREGIONS	ESTIMATED POPULATION AT MIDDLE OF EACH YEAR (Thousands of inhabitants)				MEAN ANNUAL GEOMETRIC GROWTH RATE (%) IN EACH DECADE		
	1970	1980	1990	2000	1970-1980	1980-1990	1990-2000
REGIONAL TOTAL	509120	614825	748902	897669	1.90	1.99	1.83
A. LATIN AMERICA	276694	361546	470404	599036	2.71	2.67	2.45
1. ANDEAN AREA	55715	73189	95889	125519	2.77	2.74	2.40
Bolivia	4286	5572	7221	9311	2.66	2.63	2.57
Colombia	21266	26907	34314	42402	2.38	2.46	2.15
Ecuador	5959	8023	10952	14600	3.02	3.16	2.92
Peru	13504	17773	23214	29468	2.79	2.71	2.41
Venezuela	10700	14914	20187	25678	3.38	3.07	2.44
2. SOUTHERN CONE	38241	44157	50494	56522	1.45	1.35	1.13
Argentina	23741	27056	30180	32850	1.32	1.10	0.85
Chile	9370	11107	13064	14938	1.72	1.64	1.35
Paraguay	2304	3067	4081	5283	2.90	2.90	2.62
Uruguay	2824	2925	3167	3450	0.35	0.80	0.86
3. BRAZIL	95151	126377	165743	212491	2.87	2.75	2.52
4. CENTRAL AMERICA	16785	22650	30232	39851	3.04	2.93	2.80
Costa Rica	1732	2213	2776	3377	2.48	2.29	1.98
El Salvador	3583	4801	6489	8713	2.97	3.06	2.99
Guatemala	5353	7262	9676	12739	3.10	2.91	2.79
Honduras	2640	3693	5107	6981	3.41	3.29	3.18
Nicaragua	1973	2737	3784	5161	3.33	3.29	3.15
Panama	1504	1944	2400	2880	2.60	2.13	1.84
5. MEXICO	50330	69994	97628	132305	3.35	3.38	3.09
6. LATIN AMERICAN CARIBBEAN	20432	25179	30418	36348	2.11	1.91	1.80
Cuba	8580	9978	11384	12724	1.52	1.33	1.12
Haiti	4609	5817	7520	9876	2.36	2.60	2.76
Puerto Rico	2718	3438	3978	4408	2.38	1.47	1.03
Dominican Republic	4525	5946	7536	9340	2.77	2.40	2.17
B. CARIBBEAN	6036	6929	8029	9087	1.39	1.48	1.25
Barbados	239	253	274	297	0.57	0.80	0.81
Guyana	709	884	1077	1252	2.23	1.99	1.52
Jamaica	1869	2192	2536	2871	1.61	1.47	1.25
Suriname	371	389	529	701	0.47	3.12	2.86
Trinidad and Tobago	1027	1139	1260	1377	1.04	1.01	0.89
Windward Islands	354	391	423	438	1.00	0.79	0.35
Dominica	71	80	88	91	1.20	0.96	0.34
Grenada	94	98	102	106	0.42	0.40	0.39
St. Lucia	101	115	127	131	1.31	1.00	0.31
St. Vincent	88	98	106	110	1.08	0.79	0.37
Belize	120	162	205	234	3.05	2.38	1.33
Guadaloupe	328	334	359	381	0.18	0.72	0.60
French Guiana	51	71	94	118	3.36	2.85	2.30
Martinique	333	327	344	359	- 0.18	0.51	0.43
Other Caribben Areas	635	787	928	1059	2.17	1.66	1.33
Antigua	70	75	80	85	0.69	0.65	0.61
Netherland Antilles	222	266	330	389	1.82	2.18	1.66
Bahamas	177	229	280	330	2.61	2.03	1.66
Cayman Islands	11	12	12	13	0.87	0.00	0.80
Turks and Caicos Islands	6	6	6	6	0.00	0.00	0.00
Virgin Islands (U.S.A.)	63	107	122	133	5.44	1.32	0.87
Virgin Islands (U.K.)	10	13	16	19	2.66	2.10	1.73
Montserrat	12	13	14	14	0.80	0.74	0.00
St. Kitts, Nevis and Anguilla	65	67	68	70	0.30	0.15	0.29
C. NORTH AMERICA	226390	246350	270469	289546	0.85	0.94	0.68
Canada	21407	24073	26826	29028	1.18	1.09	0.79
United States	204879	222159	243513	260378	0.81	0.92	0.67
Other areas	104	118	130	140	1.27	0.97	0.74
Bermuda	52	60	68	76	1.44	1.26	1.12
Greenland	47	52	56	58	1.02	0.74	0.35
St. Pierre et Miquelon	5	6	6	6	1.84	0.00	0.00

Source: "World Population and its Age-Sex Composition by Country, 1950-2000: Demographic Estimation and Projection as Assessed in 1978", Population Division, United Nations; ESA/P/WP.65, January 1980.

TABLE 2

WOMEN OF CHILD-BEARING AGE BY SUBREGIONS AND AREAS
REGION OF THE AMERICAS,
1970-2000

REGIONS, SUBREGIONS AND AREAS	WOMEN 15 TO 49 YEARS OLD							
	Population (thousands)				Percentage of Total Population			
	1970	1980	1990	2000	1970	1980	1990	2000
TOTAL OF THE REGION	18478	150443	185810	215320	23.3	24.5	24.8	24.0
A. LATIN AMERICA	63058	84832	112949	139085	22.8	23.5	24.0	23.2
1. Andean Area	12369	17378	23348	30817	22.2	23.7	24.3	23.4
2. Southern Cone	9316	10824	12525	14300	24.4	24.5	24.8	25.3
3. Brazil	22164	29841	40088	53030	23.3	23.6	24.2	25.0
4. Central America	3680	5119	7133	9742	21.9	22.6	23.6	24.4
5. Mexico	10895	15569	21994	31196	21.6	22.2	22.5	23.6
6. Latin American Caribbean	4634	6111	7861	9323	22.7	24.3	25.8	25.6
B. CARIBBEAN	1270	1636	2074	2494	21.0	23.6	25.8	27.4
C. NORTH AMERICA	54150	63975	70787	73741	23.9	26.0	26.2	25.5

Source: "World Population and its Age-Sex Composition by Country, 1950-2000: Demographic Estimation and Projection as Assessed in 1978," Population Division, United Nations; ESA/P/WP.65, January 1980.

TABLE 3

GENERAL FERTILITY: BIRTHS PER 1000 WOMEN 15-49 YEARS OLD
FIVE-YEAR ANNUAL AVERAGES
REGION OF THE AMERICAS, SUBREGIONS, AREAS AND COUNTRIES
1970-2000

REGIONS, SUBREGIONS, AND AREAS	1970 - 1975	1975 - 1980	1980 - 1985	1985 - 1990	1990 - 1995	1995 - 2000
A. LATIN AMERICA	161.1	155.8	149.4	141.1	131.1	120.8
1. ANDEAN AREA						
Bolivia	188.6	190.5	182.3	173.1	162.9	152.9
Colombia	181.7	168.2	154.2	139.1	123.0	105.9
Ecuador	190.3	178.3	166.7	154.8	142.2	128.4
Peru	180.7	171.0	160.8	150.1	139.5	128.6
Venezuela	163.1	154.4	146.3	135.5	120.3	104.2
2. SOUTHERN CONE						
Argentina	88.5	88.0	84.7	79.9	74.5	69.9
Chile	113.7	106.9	101.0	93.2	83.6	74.4
Paraguay	179.8	173.9	166.3	155.6	143.1	130.0
Uruguay	84.6	82.7	81.0	78.2	73.5	68.1
3. BRAZIL	158.6	153.0	145.4	136.8	127.7	118.8
4. CENTRAL AMERICA						
Costa Rica	146.2	133.8	124.7	114.6	105.9	102.0
El Salvador	195.4	185.3	176.1	166.7	154.3	140.3
Guatemala	190.0	181.7	172.4	160.7	148.3	136.3
Honduras	224.6	214.2	202.2	189.8	178.0	166.2
Nicaragua	220.4	211.4	200.3	187.2	173.8	161.0
Panama	165.5	158.1	150.9	142.1	131.9	121.6
5. MEXICO	192.6	188.7	184.5	176.2	163.6	151.0
6. LATIN AMERICAN CARIBBEAN						
Cuba	129.4	120.8	144.0	108.0	100.3	91.6
Haiti	143.3	143.3	142.0	137.4	125.6	100.7
Puerto Rico	91.2	82.4	75.7	70.2	64.7	60.0
Dominican Republic	212.7	105.0	197.0	186.9	174.8	161.5
B. CARIBBEAN	144.0	137.0	130.5	124.0	115.8	104.8
Barbados	94.9	91.6	85.8	77.0	67.8	60.6
Guyana	147.3	131.8	113.9	96.9	81.2	69.5
Jamaica	167.6	149.9	133.3	122.0	110.4	93.5
Suriname	204.3	198.9	194.0	178.0	151.6	123.5
Trinidad and Tobago	109.7	95.1	84.5	74.8	68.2	61.9
Windward Islands	179.8	167.4	149.7	128.0	108.2	90.9
Belize						
Guadaloupe	129.3	119.1	103.7	84.7	72.7	65.1
French Guiana						
Martinique	130.3	115.9	101.1	83.6	72.8	65.7
Other Caribbean areas	133.4	123.9	111.6	102.7	90.7	80.0
C. NORTH AMERICA	67.5	69.3	71.7	68.0	61.9	58.8
Canada	74.4	79.8	81.3	76.7	69.4	67.5
North America	66.7	68.1	70.7	67.0	61.0	57.7

Source: "Selected World Demographic Indicators by Countries, 1950-2000," Population Division, United Nations, ESA/P/WP.55, May 1975.

TABLE 4

CRUDE BIRTH RATES: FIVE-YEAR AVERAGES
REGION OF THE AMERICAS, SUBREGIONS AND AREAS
1970-2000

REGIONS, SUBREGIONS, AND AREAS	1970 - 1975	1975 - 1980	1980 - 1985	1985 - 1990	1990 - 1995	1995 - 2000
A. LATIN AMERICA	36.4	35.1	34.6	33.2	31.4	29.7
1. ANDEAN AREA	38.0	37.3	36.2	34.4	31.8	29.3
Bolivia	46.0	43.5	41.7	40.4	38.9	37.1
Colombia	34.1	33.8	33.2	31.4	28.8	26.5
Ecuador	42.2	41.6	40.6	38.8	36.3	33.5
Peru	41.0	39.7	38.3	36.3	33.9	31.5
Venezuela	36.2	36.1	35.0	32.7	29.5	26.3
2. SOUTHERN CONE	23.9	23.5	22.8	21.7	20.5	19.5
Argentina	21.8	21.4	20.4	19.4	18.3	17.4
Chile	26.0	25.4	24.8	23.4	21.6	20.1
Paraguay	39.8	39.0	37.9	36.1	33.9	31.6
Uruguay	21.1	20.3	19.9	19.6	19.2	18.8
3. BRAZIL	37.1	36.0	34.5	32.9	31.2	29.4
4. CENTRAL AMERICA	42.4	40.9	38.6	36.2	34.6	33.5
Costa Rica	30.9	29.1	28.1	27.0	25.4	23.8
El Salvador	43.2	42.1	40.1	37.9	35.9	34.2
Guatemala	43.5	41.1	38.4	36.2	34.6	33.6
Honduras	48.6	47.0	43.9	39.4	37.9	38.0
Nicaragua	48.3	46.6	44.6	42.4	40.2	38.0
Panama	35.1	31.4	28.4	26.7	25.3	23.9
5. MEXICO	42.0	41.7	41.1	39.5	37.3	35.2
6. LATIN AMERICAN CARIBBEAN	32.9	28.8	28.2	27.7	26.8	25.5
Cuba	25.8	19.5	19.7	20.1	19.1	17.3
Haití	42.7	41.8	41.3	40.8	40.1	39.1
Puerto Rico	23.2	21.4	20.0	18.2	16.9	15.7
Dominican Republic	42.0	36.7	34.0	31.7	30.0	27.9
B. CARIBBEAN	30.1	23.0	26.1	24.3	22.0	19.6
Barbados	19.2	18.9	19.0	18.8	16.9	15.2
Guyana	32.4	31.1	28.5	25.3	22.0	19.5
Jamaica	32.0	27.9	26.2	23.9	21.5	19.1
Suriname	38.4	37.1	41.3	42.3	38.2	31.8
Trinidad and Tobago	25.1	21.6	20.1	19.1	18.2	16.3
Windward Islands	35.9	33.6	30.8	27.5	24.5	21.7
Belice	32.0	....	...	...	...	...
Guadaloupe	28.6	23.6	22.1	20.3	18.0	16.2
French Guiana	29.2	...	...	...	...	...
Martinique	24.0	22.0	21.8	20.1	17.8	15.9
Other Caribbean Areas	30.0	29.9	27.2	25.1	22.5	20.6
C. NORTH AMERICA	15.8	15.3	17.0	16.6	15.4	14.2
Canada	16.0	16.0	16.1	15.3	14.0	13.1
United States	15.8	15.2	17.1	16.8	15.6	14.3

Source: "World Population Trends and Prospects by Country, 1950-2000: Summary Report of the 1978 Assessment," United Nations, ST/ESA/SER.R/33, 1979.

TABLE 5

GENERAL MORTALITY: CRUDE RATES PER 1,000 INHABITANTS
REGION OF THE AMERICAS, SUBREGIONS, AREAS, AND COUNTRIES
1970-2000

REGION, SUBREGION O AREA	DEATHS PER THOUSAND INHABITANTS					
	1970 - 1975	1975 - 1980	1980 - 1985	1985 - 1990	1990 - 1995	1995 - 2000
A. LATIN AMERICA	9.4	8.5	7.7	7.1	6.5	6.0
1. ANDEAN AREA	10.8	9.6	8.6	7.8	7.0	6.5
Bolivia	17.8	16.0	14.5	13.3	12.2	11.1
Colombia	9.0	7.9	7.1	6.4	5.8	5.4
Ecuador	12.1	10.4	8.9	7.5	6.4	5.6
Peru	13.6	12.2	11.1	10.1	9.2	8.5
Venezuela	7.1	6.5	6.0	5.6	5.2	4.9
2. SOUTHERN CONE	8.8	8.7	8.7	8.7	8.7	8.7
Argentina	8.8	8.9	9.1	9.3	9.5	9.7
Chile	8.4	8.1	7.7	7.5	7.3	7.1
Paraguay	8.8	8.0	7.3	6.6	6.1	5.6
Uruguay	9.9	10.1	10.2	10.2	10.1	9.9
3. BRAZIL	8.8	7.8	7.0	6.3	5.7	5.3
4. CENTRAL AMERICA	11.4	9.9	8.6	7.5	6.6	5.9
Costa Rica	5.8	5.3	5.0	4.9	4.9	5.1
El Salvador	11.0	9.4	8.0	7.0	6.1	5.2
Guatemala	12.8	10.9	9.3	8.0	7.0	6.3
Honduras	13.7	11.8	10.1	8.4	7.2	6.3
Nicaragua	13.8	12.2	10.6	9.1	7.8	6.6
Panama	6.9	5.9	5.6	5.4	5.4	5.5
5. MEXICO	8.6	7.6	6.9	6.2	5.6	5.2
6. LATIN AMERICAN CARIBBEAN	9.9	9.0	8.6	8.2	7.9	7.6
Cuba	6.4	6.3	6.6	6.8	7.0	7.2
Haiti	17.4	15.6	14.1	12.7	11.5	10.3
Puerto Rico	6.5	6.0	6.0	6.0	6.2	6.4
Dominican Republic	10.7	9.1	7.9	7.1	6.3	6.0
B. CARIBBEAN	7.2	6.6	6.3	6.1	6.0	5.9
Barbados	9.0	8.8	8.8	8.6	8.3	8.1
Guyana	5.9	5.5	4.9	4.7	4.7	4.8
Jamaica	7.3	6.7	6.4	6.2	6.1	5.9
Suriname	7.5	6.8	6.1	5.3	4.6	3.9
Trinidad and Tobago	6.7	5.9	6.1	6.3	6.5	6.8
Windward Islands	8.9	7.6	6.6	6.2	5.8	5.4
Belize	5.6	...	...	...	...	...
Guadaloupe	7.2	7.1	7.1	7.2	7.4	7.6
French Guiana	7.1	...	...	...	...	...
Martinique	7.1	7.1	7.3	7.5	7.7	7.8
Other Caribbean Areas	7.3	6.6	6.3	6.0	5.8	5.8
C. NORTH AMERICA	9.2	9.0	9.2	9.4	9.5	9.8
1. Canada	7.7	7.7	7.7	7.9	8.2	8.5
2. United States	9.4	9.1	9.4	9.6	9.7	9.9

Source: "World Population Trends and Prospects by Country, 1950-2000: Summary Report of the 1978 Assessment," United Nations, ST/ESA/SER.R/33, 1979.

TABLE 6

LIFE EXPECTANCY AT BIRTH DURING LAST FIVE YEARS OF EACH DECADE
REGION OF THE AMERICAS, 1965-2000

AREAS, COUNTRIES, AND TERRITORIES	1965-1970	1975-1980	1985-1990	1995-2000
REGIONAL TOTAL	64.9	67.0	69.2	71.1
A. LATIN AMERICA	60.0	63.6	67.3	70.4
1. ANDEAN AREA	57.0	61.4	66.0	70.2
Bolivia	45.3	48.3	53.3	58.3
Colombia	58.5	63.4	68.3	73.2
Ecuador	57.2	62.1	66.4	69.4
Peru	53.4	58.1	62.2	68.2
Venezuela	63.0	66.4	69.5	72.3
2. SOUTHERN CONE	65.5	67.9	69.3	70.6
Argentina	67.4	69.4	70.2	70.7
Chile	60.6	64.4	67.6	70.4
Paraguay	60.1	63.6	66.7	69.4
Uruguay	69.3	70.2	71.1	72.0
3. BRAZIL	59.7	63.6	67.7	71.1
4. CENTRAL AMERICA	53.9	59.3	63.8	68.2
Costa Rica	65.4	70.2	72.8	73.8
El Salvador	54.9	60.7	65.3	69.2
Guatemala	50.1	55.7	61.3	67.0
Honduras	49.4	56.2	61.6	67.0
Nicaragua	50.4	55.2	60.0	64.7
Panama	64.9	67.9	70.3	72.4
5. MEXICO	61.0	65.5	68.3	70.3
6. LATIN AMERICAN CARIBBEAN	61.7	64.2	66.8	69.5
Cuba	69.2	70.4	71.7	73.0
Haiti	47.7	52.2	57.0	62.0
Puerto Rico	71.0	72.8	73.9	74.5
Dominican Republic	55.4	60.2	65.0	69.8
B. CARIBBEAN	66.7	69.9	72.0	73.2
Barbados	67.6	70.5	72.6	73.7
Guyana	65.2	69.1	72.0	73.2
Jamaica	67.8	70.6	72.2	73.1
Suriname	63.6	67.2	70.2	72.3
Trinidad and Tobago	67.8	70.8	72.7	73.9
Windward Islands 1/	63.3	67.4	70.4	72.5
Guadaloupe	67.4	70.7	72.9	74.1
Martinique	67.4	71.0	73.4	75.0
Other Caribbean areas 2/	66.2	69.1	71.2	72.6
C. NORTH AMERICA 3/	70.6	71.7	72.2	72.5
Canada	72.0	72.5	72.7	72.7
United States	70.5	71.6	72.2	72.5

Source: "World Population Trends and Prospects by Country, 1950-2000," *Summary Report of the 1978 Assessment*," *United Nations*, ST/ESA/SER.R/33, New York, 1979.

1/ Includes Dominica, Grenada, St. Lucia and St. Vincent.
2/ Includes Antigua, Bahamas, Cayman Islands, Montserrat, the Netherland Antilles, St. Kitts, Nevis and Anguilla, the Turks and Caicos Islands, and the Virgin Islands (U.S.A.)
3/ Includes Bermuda, Greenland, and St. Pierre et Niquelon.

TABLE 7

DISTRIBUTION OF THE POPULATION IN BROAD GROUPS
BY AREAS, COUNTRIES, AND TERRITORIES

REGION OF THE AMERICAS, 1970

AREAS, COUNTRIES AND TERRITORIES	Population in Each Age Group (Thousands of Inhabitants) 1/					Percentage of Population In Each Age Group			
	TOTAL	Under 15 yrs.	15-44 years	45-64 years	65 years and older	Under 15 yrs.	15-44 years	45-64 years	65 years and older
REGIONAL TOTAL	509120	184897	211887	79733	32603	36.3	41.6	15.7	6.4
A. LATIN AMERICA	276694	117832	115391	33033	10438	42.6	41.7	11.9	3.8
1. ANDEAN AREA	55715	25336	22744	5834	1801	45.5	40.8	10.5	3.2
Bolivia	4286	1873	1808	464	141	43.7	42.2	10.8	3.3
Colombia	21266	9816	8694	2167	589	46.1	40.9	10.2	2.8
Ecuador	5959	2700	2408	623	228	45.3	40.4	10.5	3.8
Peru	13504	5986	5538	1449	531	44.3	41.0	10.7	4.0
Venezuela	10700	4961	4296	1131	312	46.4	40.1	10.6	2.9
2. SOUTHERN CONE 2/	38241	12343	16693	6741	2464	32.3	43.7	17.6	6.4
Argentina	23741	6917	10475	4649	1700	29.1	44.1	19.6	7.2
Chile	9370	3568	4081	1274	447	38.1	43.5	13.6	4.8
Paraguay	2304	1059	920	249	76	46.0	39.9	10.8	3.3
Uruguay	2824	797	1217	569	241	28.2	43.1	20.1	8.6
3. BRAZIL	95191	40616	40587	11056	2932	42.7	42.6	11.6	3.1
4. CENTRAL AMERICA	16785	7756	6848	1695	486	46.2	40.8	10.1	2.9
Costa Rica	1732	798	703	176	55	46.1	40.6	10.1	3.2
El Salvador	3583	1652	1442	375	114	46.1	40.2	10.5	3.2
Guatemala	5353	2446	2239	521	147	45.7	41.8	9.7	9.8
Honduras	2640	1255	1054	267	64	47.6	39.9	10.1	2.4
Nicaragua	1973	958	786	180	49	48.6	39.8	9.1	2.5
Panama	1504	647	624	176	57	43.0	41.5	11.7	3.8
5. MEXICO	50330	23391	20109	5053	1777	46.5	40.0	10.0	3.5
6. LATIN AMERICAN CARIBBEAN	20432	8391	8409	2654	978	41.1	41.1	13.0	4.8
Cuba	8580	3188	3593	1290	509	37.2	41.9	15.0	5.9
Haiti	4609	1978	1908	551	172	42.9	41.4	12.0	3.7
Puerto Rico	2718	1006	1133	403	176	37.0	41.7	14.8	6.5
Dominican Republic	4525	2219	1775	410	121	49.0	39.2	9.1	2.7
B. CARIBBEAN	6036	2714	2241	787	294	44.9	37.2	13.0	4.9
Barbados	239	90	90	40	19	37.7	37.7	16.7	7.9
Guyana	709	339	270	76	24	47.8	38.1	10.7	3.4
Jamaica	1869	878	634	253	104	47.0	33.9	13.5	5.6
Suriname	371	187	132	37	15	50.4	35.6	10.0	4.0
Trinidad and Tobago	1027	424	423	141	39	41.3	41.2	13.7	3.8
Windward Islands 3/	354	174	118	43	19	49.2	33.3	12.1	5.4
Dominica	71	35	23	9	4	49.0	32.5	12.6	5.9
Grenada	94	44	33	12	5	47.2	34.6	12.4	3.6
St. Lucia	101	50	33	12	6	49.6	32.9	12.2	5.3
St. Vincent	88	45	29	10	4	51.2	32.8	11.2	4.8
Belize	120	59	43	13	5	49.4	35.6	10.8	4.2
Guadaloupe	328	141	128	43	16	43.1	38.9	13.2	4.8
French Guiana	51	19	22	7	3	38.1	42.3	14.3	5.3
Martinique	333	138	130	48	17	41.5	39.0	14.4	5.1
Other Caribbean Areas	635	265	251	86	33	41.5	40.3	13.2	5.0
Antigua	70	31	25	10	4	44.2	36.2	14.6	5.0
Netherland Antilles	222	86	94	30	12	38.0	43.4	13.2	5.4
Bahamas	177	77	73	21	6	43.5	41.1	11.9	3.5
Cayman Islands	11	4	4	2	1	38.5	39.2	14.7	7.6
Turks and Caicos Islands	6	3	2	1	0	47.1	32.3	14.4	6.2
Virgin Islands (U.S.A.)	63	23	29	9	2	35.7	47.6	12.9	3.8
Virgin Islands (U.K.)	10	4	4	1	1	39.2	43.8	11.8	5.2
Montserrat	12	5	4	2	1	39.8	31.9	17.5	10.8
St. Kitts,Nevis,Anguilla	65	32	17	10	5	48.7	28.2	16.0	7.1
C. NORTH AMERICA	226390	64351	94255	45913	21871	28.4	41.7	20.3	9.6
Canada	21407	6464	9306	3954	1683	30.2	43.5	18.5	7.8
United States	204879	57858	84906	41938	20177	28.2	41.5	20.5	9.8
Other Areas	104	29	43	21	11	27.9	41.3	20.2	10.6
Bermuda	52	..	..	..	..	..	..	..	..
Greenland	47	..	..	..	..	..	..	..	..
St. Pierre et Miquelon	5	..	..	..	..	..	..	..	..

Source: "World Population and its Age-Sex Composition by Country, 1950-2000: Demographic Estimation and Projection as Assessed in 1978," Population Division, United Nations; ESA/P/WP.65, January 1980.

1/ Possible differences in totals are due to rounding. 2/ Includes Falkland Islands. 3/ The age structures for the several Windward Islands and Other Caribbean Areas were estimated from another source. (PAHO/WHO Scientific Publication N° 364, Health Conditions in the Americas, 1973-1976," Annex 1-3, p. 130)

TABLE 8

DISTRIBUTION OF THE POPULATION IN BROAD AGE GROUPS
BY AREAS, COUNTRIES, AND TERRITORIES
REGION OF THE AMERICAS, 1980

AREAS, COUNTRIES AND SUBREGIONS	Population in Each Age Group (Thousands of Inhabitants) 1/					Percentage of Population In Each Age Group			
	TOTAL	Under 15 yrs.	15-44 years	45-64 years	65 years and older	Under 15 yrs.	15-44 years	45-64 years	65 years and older
REGIONAL TOTAL	614825	205905	274482	92301	42137	33.5	44.6	15.0	6.9
A. LATIN AMERICA	361546	147699	156293	42902	14652	40.9	43.2	11.9	4.0
1. ANDEAN AREA	73189	30623	32243	7879	2444	41.8	44.1	10.8	3.3
Bolivia	5572	2442	2313	624	193	43.8	41.5	11.2	3.5
Colombia	26907	10872	12371	2838	826	40.4	46.0	10.5	3.1
Ecuador	8023	3565	3343	831	284	44.4	41.7	10.4	3.5
Peru	17773	7549	7654	1924	646	42.5	43.1	10.8	3.6
Venezuela	14914	6195	6562	1662	495	41.5	44.0	11.2	3.3
2. SOUTHERN CONE	44157	13406	19520	7898	3333	30.4	44.2	17.9	7.5
Argentina	27056	7634	11738	5363	2321	28.2	43.4	19.8	8.6
Chile	11107	3615	5305	1580	607	32.5	47.8	14.2	5.5
Paraguay	3067	1362	1280	321	104	44.4	41.7	10.5	3.4
Uruguay	2925	795	1197	632	301	27.2	40.9	21.6	10.3
3. BRAZIL	126377	52398	54703	14881	4395	41.4	43.3	11.8	3.5
4. CENTRAL AMERICA	22650	10060	9567	2320	703	44.4	42.2	10.3	3.1
Costa Rica	2213	838	1047	247	81	37.9	47.3	11.1	3.7
El Salvador	4801	2169	1975	492	165	45.2	41.1	10.3	3.4
Guatemala	7262	3200	3095	759	208	44.1	42.6	10.4	2.9
Honduras	3693	1766	1465	360	102	47.8	39.7	9.7	2.8
Nicaragua	2737	1314	1124	233	66	48.0	41.1	8.5	2.4
Panama	1944	733	861	229	81	39.7	44.3	11.8	4.2
5. MEXICO	69994	31761	29041	6722	2470	45.4	41.5	9.6	3.5
6. LATIN AMERICAN CARIBBEAN	25179	9447	11221	3204	1307	37.5	44.6	12.7	5.2
Cuba	9978	3191	4574	1500	713	32.0	45.8	15.0	7.2
Haiti	5817	2533	2426	651	207	43.5	41.7	11.2	3.6
Puerto Rico	3438	1062	1659	497	220	30.9	48.2	14.5	6.4
Dominican Republic	5946	2661	2562	556	167	44.8	43.1	9.3	2.8
B. CARIBBEAN	6929	2684	2990	883	372	38.7	43.2	12.7	5.4
Barbados	253	70	121	39	23	27.7	47.8	15.4	9.1
Guyana	884	355	398	96	35	40.2	45.0	10.8	4.0
Jamaica	2192	889	892	280	131	40.5	40.7	12.8	6.0
Suriname	389	200	132	42	15	51.4	33.9	10.8	3.9
Trinidad and Tobago	1139	375	547	162	55	32.9	48.0	14.2	4.9
Windward Islands 3/	391	180	150	41	20	46.0	38.4	10.5	5.1
Dominican	80	...	...	...	...	...	...	...	...
Grenada	98	...	...	...	...	...	...	...	...
St. Lucia	115	...	...	...	...	...	...	...	...
St. Vincent	98	...	...	...	...	...	...	...	...
Belize	162	75	70	12	5	46.3	43.2	7.4	3.1
Guadaloupe	334	107	153	52	22	32.0	45.8	15.6	6.6
French Guiana	71	28	33	8	2	39.4	46.5	11.3	2.8
Martinique	327	103	150	52	22	31.5	45.9	15.9	6.7
Other Caribbean Areas 3/	787	302	344	99	42	38.4	43.7	12.6	5.3
Antigua	75	...	...	...	...	...	...	...	...
Netherland Antilles	266	...	...	...	...	...	...	...	...
Bahamas	229	...	...	...	...	...	...	...	...
Cayman Islands	12	...	...	...	...	...	...	...	...
Turks and Caicos Islands	6	...	...	...	...	...	...	...	...
Virgin Islands (U.S.A.	107	...	...	...	...	...	...	...	...
Virgin Islands (U.K.)	13	...	...	...	...	...	...	...	...
Montserrat	13	...	...	...	...	...	...	...	...
St. Kitts, Nevis and Anguilla	67	...	...	...	...	...	...	...	...
C. NORTH AMERICA	246350	55522	115199	48516	27113	22.5	46.8	19.7	11.0
Canada	24073	5578	11724	4597	2174	23.2	48.7	19.1	9.0
United States	222159	49916	103419	43896	24928	22.5	46.5	19.8	11.2
Other areas	118	28	56	23	11	23.7	47.5	19.5	9.3
Bermuda	60	...	...	...	...	...	...	...	...
Greenland	52	...	...	...	...	...	...	...	...
St. Pierre et Miquelon	6	...	...	...	...	...	...	...	...

Source: "World Population and its Age-Sex Composition by Country, 1950-2000: Demographic Estimation and Projection as Assessed in 1978," Popular Divison, United Nations; ESA/P/WP.65. January 1980.

1/ Possible difference in totals are due to rounding.
2/ Includes Falkland Islands.

TABLE 9

DISTRIBUTION OF THE POPULATION IN BROAD AGE GROUPS
BY AREAS, COUNTRIES, AND TERRITORIES
REGION OF THE AMERICAS, 1990

AREAS, COUNTRIES AND SUBREGIONS	Population in Each Age Group (Thousands of Inhabitants) 1/					Percentage of Population In Each Age Group			
	TOTAL	Under 15 yrs.	15-44 years	45-64 years	65 years and older	Under 15 yrs.	15-44 years	45-64 years	65 years and older
TOTAL OF THE REGION	748902	249974	338095	107759	53074	33.4	45.1	14.4	7.1
A. LATIN AMERICA	470404	186158	208716	55496	20034	39.6	44.4	11.8	4.2
1. ANDEAN AREA	95889	38561	43494	10410	3424	40.2	45.4	10.8	3.6
Bolivia	7221	3069	3076	826	250	42.5	42.6	11.4	3.5
Colombia	34315	13170	16240	3712	1193	38.4	47.3	10.8	3.5
Ecuador	10952	4807	4676	1095	374	43.9	42.7	10.0	3.4
Peru	23214	9470	10377	2534	833	40.8	44.7	10.9	3.6
Venezuela	20187	8045	9125	2243	774	39.9	45.2	11.1	3.8
2. SOUTHERN CONE	50494	14805	22676	8827	4186	29.3	44.9	17.5	8.3
Argentina	30180	8219	13294	5756	2911	27.2	44.1	19.1	9.6
Chile	13064	4000	6262	2032	770	30.6	47.9	15.6	5.9
Paraguay	4081	1743	1786	406	146	42.7	43.8	9.9	3.6
Uruguay	3167	843	1332	633	359	26.6	42.1	20.0	11.3
3. BRAZIL	165743	66125	73347	19753	6518	39.9	44.3	11.9	3.9
4. CENTRAL AMERICA	30232	12706	13398	3107	1021	42.0	44.3	10.3	3.4
Costa Rica	2776	945	1376	336	119	34.0	49.6	12.1	4.3
El Salvador	6489	2819	2801	643	226	43.4	43.2	9.9	3.5
Guatemala	9676	4039	4294	1031	312	41.7	44.4	10.7	3.2
Honduras	5107	2308	2159	484	156	45.2	42.3	9.5	3.0
Nicaragua	3784	1762	1620	310	92	46.6	42.8	8.2	2.4
Panama	2400	833	1148	303	116	34.7	47.9	12.6	4.8
5. MEXICO	97628	43739	41338	9314	3237	44.8	42.4	9.5	3.3
6. LATIN AMERICAN CARIBBEAN	30418	10222	14463	4085	1648	33.6	47.6	13.4	5.4
Cuba	11384	2957	5622	1925	880	26.0	49.4	16.9	7.7
Haiti	7520	3277	3207	786	250	43.6	42.7	10.4	3.3
Puerto Rico	3978	1059	2021	621	277	26.6	50.8	15.6	7.0
Dominican Republic	7536	2929	3613	713	241	38.9	47.9	9.5	3.2
B. CARIBBEAN	8029	2679	3906	975	469	33.4	48.7	12.1	5.8
Barbados	274	69	141	39	25	25.2	51.5	14.2	9.1
Guyana	1077	375	540	116	46	34.8	50.1	10.8	4.3
Jamaica	2536	838	1245	297	156	33.0	49.1	11.7	6.2
Suriname	529	247	226	37	19	46.7	42.7	7.0	3.6
Trinidad and Tobago	1260	333	654	194	79	26.4	51.9	15.4	6.3
Windward Islands 3/	423	170	195	34	24	40.2	46.1	8.0	5.7
Dominican	88	...	...	...	...	...	...	...	...
Grenada	102	...	...	...	...	...	...	...	...
St. Lucia	127	...	...	...	...	...	...	...	...
St. Vincent	106	...	...	...	...	...	...	...	...
Belize	205	93	86	20	6	45.4	42.0	9.7	2.9
Guadaloupe	359	103	176	52	28	28.7	49.0	14.5	7.8
French Guiana	94	34	41	12	7	36.2	43.6	12.8	7.4
Martinique	344	96	168	52	28	27.9	48.8	15.1	8.2
Other Caribbean Areas 3/	928	321	434	122	51	34.6	46.8	13.1	5.5
Antigua	80	...	...	...	...	...	...	...	...
Netherland Antilles	330	...	...	...	...	...	...	...	...
Bahamas	280	...	...	...	...	...	...	...	...
Cayman Islands	12	...	...	...	...	...	...	...	...
Turks and Caicos Islands	6	...	...	...	...	...	...	...	...
Virgin Islands (U.S.A.	122	...	...	...	...	...	...	...	...
Virgin Islands (U.K.)	16	...	...	...	...	...	...	...	...
Montserrat	14	...	...	...	...	...	...	...	...
St. Kitts, Nevis and Anguilla	68	...	...	...	...	...	...	...	...
C. NORTH AMERICA	270469	61137	125473	51288	32571	22.6	46.4	19.0	12.0
Canada	26826	5913	13006	5176	2731	22.0	48.5	19.3	10.2
United States	243513	55195	112407	46087	29824	22.7	46.2	18.9	12.2
Other areas	130	29	60	25	16	22.3	46.2	19.2	12.3
Bermuda	68	...	...	...	...	...	...	...	...
Greenland	56	...	...	...	...	...	...	...	...
St. Pierre et Miquelon	6	...	...	...	...	...	...	...	...

Source: "World Population and its Age-Sex Composition by Country, 1950-2000: Demographic Estimation and Projection as Assessed in 1978," Popular Divison, United Nations; ESA/P/WP.65. January 1980.

1/ Possible difference in totals are due to rounding.
2/ Includes Falkland Islands.

TABLE 10

DISTRIBUTION OF THE POPULATION IN BROAD AGE GROUPS
BY AREAS, COUNTRIES, AND TERRITORIES
REGION OF THE AMERICAS, 2000

AREAS, COUNTRIES AND SUBREGIONS	Population in Each Age Group (Thousands of Inhabitants) 1/					Percentage of Population In Each Age Group				
	TOTAL	Under 15 yrs.	15-44 years	45-64 years	65 years and older	Under 15 yrs.	15-44 years	45-64 years	65 years and older	
TOTAL OF THE REGION	897669	288869	402252	143489	63059	32.2	44.8	16.0	7.0	
A. LATIN AMERICA	599036	223337	271900	76339	27460	37.3	45.4	12.7	4.6	
1. ANDEAN AREA	121519	45142	56694	14851	4832	37.1	46.7	12.2	4.0	
Bolivia	9311	3838	4106	1019	348	41.2	44.1	11.0	3.7	
Colombia	42462	14922	20335	5519	1666	35.2	47.9	13.0	3.9	
Ecuador	14600	6027	6510	1545	518	41.2	44.6	37.8	11.4	
Peru	29468	11213	13634	3495	1126	38.0	46.3	11.9	3.8	
Venezuela	25678	9142	12089	3273	1174	35.6	47.1	12.7	4.6	
2. SOUTHERN CONE	56522	15406	25618	10435	5063	27.3	45.3	18.4	9.0	
Argentina	32850	8223	14639	6546	3442	25.0	44.6	19.9	10.5	
Chile	14938	4187	7092	2655	1004	28.0	47.5	17.8	6.7	
Paraguay	5283	2097	2396	590	200	39.7	45.3	11.2	3.8	
Uruguay	3450	899	1491	643	417	26.1	43.2	18.6	12.1	
3. BRAZIL	212491	79265	96147	27617	9462	37.3	45.2	13.0	4.5	
4. CENTRAL AMERICA	39851	15777	18106	4464	1504	39.6	45.4	11.2	3.8	
Costa Rica	3377	1071	1635	502	169	31.7	48.4	14.9	5.0	
El Salvador	8713	3541	3921	917	334	40.6	45.0	10.5	3.8	
Guatemala	12739	5031	5751	1467	490	39.5	45.1	11.5	3.9	
Honduras	6981	2953	3122	676	230	42.3	44.7	9.7	3.3	
Nicaragua	5161	2274	2289	473	125	44.1	44.3	9.2	2.4	
Panama	2880	907	1388	429	156	31.5	48.2	14.9	5.4	
5. MEXICO	132305	55931	58324	13515	4535	42.3	44.1	10.2	3.4	
6. LATIN AMERICAN CARIBBEAN	36348	11816	17011	5457	2064	32.5	46.8	15.0	5.7	
Cuba	12724	3196	6019	2444	1065	25.1	47.3	19.2	8.4	
Haiti	9876	4283	4284	1000	309	43.4	43.4	10.1	3.1	
Puerto Rico	4408	1020	2144	905	339	23.2	48.6	20.5	7.7	
Dominican Republic	9340	3317	4564	1108	351	35.5	48.9	11.9	3.7	
B. CARIBBEAN	9087	2663	4642	1223	559	29.3	51.1	13.5	6.1	
Barbados	297	69	146	57	25	23.2	49.2	19.2	8.4	
Guyana	1252	359	654	179	60	28.7	52.2	14.3	4.8	
Jamaica	2871	811	1543	338	179	28.3	53.7	11.8	6.2	
Suriname	701	307	339	30	25	43.8	48.3	4.3	3.6	
Trinidad and Tobago	1377	331	687	258	101	24.1	49.9	18.7	7.3	
Windward Islands	438	148	230	36	24	33.8	52.5	8.2	5.5	
Dominica	91	...	...	...	...	...	...	...	...	
Grenada	106	...	...	...	...	...	...	...	...	
St. Lucia	131	...	...	...	...	...	...	...	...	
St. Vincent	110	...	...	...	...	...	...	...	...	
Belize	234	102	100	24	8	43.6	42.7	10.3	3.4	
Guadaloupe	381	93	191	63	34	24.4	50.1	16.6	8.9	
French Guiana	118	41	53	17	7	34.8	44.9	14.4	5.9	
Martinique	359	87	176	62	34	24.2	49.0	17.3	9.5	
Other Caribbean Areas	1059	315	523	159	62	29.7	49.4	15.0	5.9	
Antigua	85	...	...	...	...	...	...	...	...	
Netherland Antilles	389	...	...	...	...	...	...	...	...	
Bahamas	330	...	...	...	...	...	...	...	...	
Cayman Islands	13	...	...	...	...	...	...	...	...	
Turks and Caicos Islands	6	...	...	...	...	...	...	...	...	
Virgin Islands (U.S.A.	133	...	...	...	...	...	...	...	...	
Virgin Islands (U.K.)	19	...	...	...	...	...	...	...	...	
Montserrat	14	...	...	...	...	...	...	...	...	
St. Kitts, Nevis, and Anguilla	70	...	...	...	...	...	...	...	...	
C. NORTH AMERICA	289546	62869	125710	65927	35040	21.7	43.4	22.8	12.1	
Canada	29028	5835	13228	6765	3200	20.1	45.6	23.3	11.0	
United States	260378	57005	112420	59131	31822	21.9	43.2	22.7	12.2	
Other areas	140	29	62	31	18	20.7	44.3	22.1	12.9	
Bermuda	76	...	...	...	...	...	...	...	...	
Greenland	58	...	...	...	...	...	...	...	...	
St. Pierre et Miquelon	6	...	...	...	...	...	...	...	...	

Source: "World Population and its Age-Sex Composition by Country, 1950-2000: Demographic Estimation and Projection as Assessed in 1978," Popular Divison, United Nations; ESA/P/WP.65. January 1980.

1/ Possible difference in totals are due to rounding.
2/ Includes Falkland Islands.

TABLE 11

ESTIMATED AND PROJECTED URBAN POPULATION, REGION OF THE AMERICAS, AREAS, COUNTRIES, AND TERRITORIES 1970, 1980, 1990 AND 2000

AREAS, COUNTRIES, TERRITORIES	Thousands of Inhabitants				Porcentage of Total Population			
	1970	1980	1990	2000	1970	1980	1990	2000
REGIONAL TOTAL	329771	430342	561933	690004	64.8	70.0	75.0	76.9
A. LATIN AMERICA	159453	233105	333610	434635	57.6	64.5	70.9	72.6
1. ANDEAN AREA	31994	47392	68080	92636	57.4	64.8	71.0	73.8
Bolivia	1498	2239	3303	4786	34.9	40.2	45.7	51.4
Colombia	12598	18201	25649	34266	59.2	69.6	74.7	80.8
Ecuador	2355	3556	5385	7905	39.5	44.3	49.2	54.1
Peru	7838	11636	16740	22962	58.0	65.5	72.1	77.9
Venezuela	7705	11760	17003	22717	72.0	78.8	84.2	88.5
2. SOUTHERN CONE	28817	35145	41927	48532	75.4	79.6	83.0	85.9
Argentina	18632	22367	26013	29284	78.5	82.7	86.2	89.1
Chile	7045	9009	11205	13357	75.2	81.1	85.2	89.4
Paraguay	857	1290	1922	2766	37.2	42.1	47.1	52.4
Uruguay	2283	2479	2787	3125	80.8	84.8	88.0	90.6
3. BRAZIL	53136	81062	118902	166449	55.8	64.1	71.7	78.3
4. CENTRAL AMERICA	6413	9965	15915	22255	38.2	44.0	52.6	55.8
Costa Rica	672	1015	1461	2003	38.8	45.8	52.6	59.3
El Salvador	1414	2132	3210	4758	39.5	44.4	49.5	54.6
Guatemala	1805	2791	4202	6184	33.7	38.4	43.4	48.5
Honduras	877	1484	2438	3859	33.2	40.2	47.7	55.3
Nicaragua	927	1486	3140	3521	47.0	54.3	61.5	68.2
Panama	718	1058	1464	1930	47.8	54.4	61.0	67.0
5. MEXICO	29625	46448	71360	104466	58.9	66.4	73.1	79.0
6. LATIN AMERICAN CARIBBEAN	9468	13093	17426	22552	46.3	52.0	57.3	62.0
Cuba	5115	6449	7919	9419	59.6	64.6	69.6	74.0
Haiti	911	1453	2330	3719	19.7	25.0	31.0	37.7
Puerto Rico	1661	2383	3016	3557	61.1	69.3	75.8	80.7
Dominican Republic	1781	2808	4161	5857	39.4	47.2	55.2	62.7
B. CARIBBEAN	2337	3113	4104	5201	38.7	44.9	51.1	57.2
Barbados	104	119	144	174	43.5	47.2	52.4	58.6
Guyana	225	314	436	583	31.7	35.5	40.5	46.6
Jamaica	755	1087	1468	1863	40.4	49.6	57.9	64.9
Suriname	181	203	300	440	48.8	52.1	56.8	62.7
Trinidad and Tobago	248	301	379	490	24.1	26.4	30.1	35.6
Windward Islands	68	84	105	131	19.2	21.5	24.9	29.8
Belize	69	98	131	158	57.1	60.6	64.1	67.6
Guadaloupe	146	182	226	265	44.5	54.4	63.0	69.5
French Guiana	28	50	69	89	68.3	70.7	73.1	75.5
Martinique	188	222	261	291	56.5	67.8	75.9	81.1
Other Caribbean Islands	325	453	585	717	51.2	57.6	63.0	67.7
C. NORTH AMERICA	167981	194124	224219	250168	74.2	78.8	82.9	86.4
Canada	16184	19499	22856	25690	75.6	81.0	85.2	88.5
North America	151610	174395	201142	224447	74.0	78.5	82.6	86.2

Source: The figures for North America and the Caribbean are taken from "Selected Demographic Indicators by Countries, 1950-2000," Population Division, United Nations, ESA/P/WP.55, 1975.

The figures for Latin America, adjusted for minor discrepancies, are taken from "Boletín Demográfico" N° 23, CELADE, ISSN 0378-5386, Santiago, Chile, January 1980.

1/ Includes Dominica, Grenada, St. Lucia, and St. Vincent.
2/ Includes Antigua, Bahamas, Cayman Islands, Montserrat, the Netherlands Antilles, St. Kitts, Nevis and Anguilla, the Turks and Caicos Islands, the Virgin Islands (U.K.), and the Virgin Islands (U.S.A.).
3/ Includes Bermuda, Greenland, and St. Pierre et Miquelon.

TABLE 12

POPULATION DENSITY: INHABITANTS PER SQUARE KILOMETER
REGION OF THE AMERICAS, AREAS, COUNTRIES, TERRITORIES,
1970, 1980, 1990, 2000

AREAS, COUNTRIES, AND TERRITORIES	1970	1980	1990	2000
REGIONAL TOTAL	12	15	18	21
A. LATIN AMERICA	14	18	24	30
1. ANDEAN AREA	12	16	20	27
Bolivia	4	6	7	9
Colombia	19	27	35	45
Ecuador	21	29	40	52
Peru	10	14	18	24
Venezuela	12	15	21	26
2. SOUTHERN CONE	9	11	12	14
Argentina	9	10	11	12
Chile	12	15	18	20
Paraguay	6	8	10	13
Uruguay	17	18	20	22
3. BRAZIL	11	15	19	25
4. CENTRAL AMERICA	34	46	62	82
Costa Rica	34	45	58	73
El Salvador	164	225	308	411
Guatemala	49	65	87	114
Honduras	23	32	45	61
Nicaragua	15	21	29	40
Panama	19	26	33	43
5. MEXICO	26	35	49	67
6. LATIN AMERICAN CARIBBEAN	104	129	155	186
Cuba	75	92	112	133
Haiti	153	179	215	254
Puerto Rico	308	346	386	418
Dominican Republic	89	124	174	241
B. CARIBBEAN	11	13	15	17
Barbados	555	585	624	661
Guyana	3	4	5	6
Jamaica	172	198	225	249
Suriname	2	3	4	6
Trinidad and Tobago	186	207	229	250
Windward Islands 1/	168	186	201	207
Belize	5	7	9	10
Guadaloupe	184	215	247	277
French Guiana	1	1	1	1
Martinique	307	354	402	440
Other Caribbean Islands	37	44	52	59
C. NORTH AMERICA	11	12	13	14
Canada	2	2	3	3
North America	22	24	26	28

Sources: Latin American Demographic Center, BOLETIN DEMOGRAFICO N° 1, Santiago, Chile, April 1976.
Population Division of the United Nations, SELECTED WORD DEMOGRAPHIC INDICATORS BY COUNTRIES, 1950-2000, ESA/P/WP.55, May 1975.

TABLE 13

CITIES OF MORE THAN 100,000 INHABITANTS BY SIZE, POPULATION, AND AS PERCENTAGES OF URBAN POPULATION IN THE REGION OF THE AMERICAS AND ITS SUBREGIONS AND AREAS
YEAR 1970

REGIONS, SUBREGIONS AND AREAS	SIZE						
	Total of 100,000 and more	5 million and more	2 million to less than 5 million	1 million to less than 2 million	500,000 to less than 1 million	200,000 to less than 500,000	100,000 to less than 200,000
	NUMBER						
REGIONAL TOTAL	362	7	11	27	41	111	165
A. LATIN AMERICA	165	4	4	9	16	43	89
1. Andean Area	45	-	3	1	5	10	26
2. Southern Cone	26	1	1	1	3	7	13
3. Brazil	45	2	-	4	5	7	27
4. Central America	8	-	-	-	1	6	1
5. Mexico	31	1	-	2	-	11	17
6. Latin American Caribbean	10	-	-	1	2	2	5
B. CARIBBEAN	6	-	-	-	1	1	4
C. NORTH AMERICA	191	3	7	18	24	67	72
1. Canada	21	-	2	1	2	9	7
2. United States	170	3	5	17	22	58	65
	INHABITANTS (THOUSANDS)						
TOTAL OF THE REGION	216249	62986	31746	37387	27231	33962	22937
A. LATIN AMERICA	90562	31583	10296	12770	10567	13145	12201
1. Andean Area	18313	-	7616	1106	3448	2743	3400
2. Southern Cone	18863	8310	2680	1415	2104	2577	1777
3. Brazil	29285	14706	-	5595	3425	1903	3656
4. Central America	2532	-	-	-	669	1750	113
5. Mexico	17164	8567	-	2691	-	3448	2458
6. Latin American Caribbean	4405	-	-	1963	921	724	797
B. CARIBBEAN	1208	-	-	-	526	202	480
C. NORTH AMERICA	124479	31403	21450	24617	16138	20615	10256
1. Canada	11403	-	5274	1045	1115	3080	889
2. United States	113076	31403	16176	23572	15023	17535	9367
	PROPORCION (%) OF URBAN POPULATION LIVING IN CITIES OF THIS SIZE AND LARGER SIZES						
REGIONAL TOTAL		19.2	28.8	40.2	48.5	58.8	65.8
A. LATIN AMERICA		20.0	26.5	34.5	41.2	49.5	57.2
1. Andean Area		-	24.3	27.9	38.9	47.6	58.5
2. Southern Cone		28.8	38.1	43.0	50.3	59.2	65.3
3. Brazil		28.1	28.1	38.8	45.3	49.0	56.0
4. Central America		-	-	-	10.8	39.2	41.1
5. Mexico		28.7	28.7	37.7	37.7	49.3	57.5
6. Latin American Caribbean		-	-	20.9	30.7	38.5	47.0
B. CARIBBEAN		-	-	-	22.5	31.2	51.7
C. NORTH AMERICA		18.7	31.5	46.1	55.7	68.0	74.1
1. Canada		-	32.6	39.0	45.9	65.0	70.5
2. United States		20.7	31.4	46.9	56.8	68.4	74.6

Source: "Trends and Prospects in the Population of Urban Agglomerations, 1950-2000, as Assessed in 1973-75," Population Division, United Nations, ESA/P/WP.53, 1975.

TABLE 14

CITIES OF MORE THAN 100,000 INHABITANTS BY SIZE, POPULATION, AND AS PERCENTAGES OF URBAN POPULATION IN THE REGION OF THE AMERICAS AND ITS SUBREGIONS AND AREAS
YEAR 1980

REGIONS, SUBREGIONS AND AREAS	SIZE						
	Total of 100,000 and more	5 million and more	2 million to less than 5 million	1 million to less than 2 million	500,000 to less than 1 million	200,000 to less than 500,000	100,000 to less than 200,000
	NUMBER						
REGIONAL TOTAL	441	8	20	29	56	138	190
A. LATIN AMERICA	230	5	9	11	23	72	110
1. Andean Area	57	1	2	3	6	21	24
2. Southern Cone	30	1	1	1	5	7	15
3. Brazil	72	2	3	4	4	18	41
4. Central America	8	-	-	1	3	3	1
5. Mexico	50	1	2	-	4	18	25
6. Latin American Caribbean	13	-	1	2	1	5	4
B. CARIBBEAN	8	-	-	-	1	1	6
C. NORTH AMERICA	203	3	11	18	32	65	74
1. Canada	23	-	2	1	6	6	8
2. United States	180	3	9	17	26	59	66
	INHABITANTS (THOUSANDS)						
TOTAL OF THE REGION	298995	87971	59165	42350	40071	42436	27002
A. LATIN AMERICA	147569	51920	25609	15758	16884	21952	15346
1. Andean Area	32412	5157	7659	4699	4449	6889	3559
2. Southern Cone	24133	10375	3472	1702	4331	2133	2120
3. Brazil	49291	22510	7248	6055	2963	4936	5579
4. Central America	4142	-	-	1035	1847	1118	142
5. Mexico	30036	13878	4599	-	2575	5554	3430
6. Latin American Caribbean	7455	-	2631	2267	719	1322	516
B. CARIBBEAN	1896	-	-	-	684	287	925
C. NORTH AMERICA	149630	36051	33556	26592	22503	20197	10731
1. Canada	14465	-	6645	1280	3691	1783	1066
2. United States	135165	36051	26911	25312	18812	18414	9655
	PROPORCION (%) OF URBAN POPULATION LIVING IN CITIES OF THIS SIZE AND LARGER SIZES						
REGIONAL TOTAL		20.5	34.3	44.2	53.5	63.4	69.6
A. LATIN AMERICA		22.4	33.4	40.2	47.5	67.0	63.5
1. Andean Area		11.0	27.3	37.3	46.7	61.4	69.0
2. Southern Cone		29.2	39.1	43.9	56.1	62.2	68.1
3. Brazil		28.0	37.0	44.6	48.2	54.4	61.3
4. Central America		-	-	11.2	31.3	43.5	45.0
5. Mexico		29.7	39.5	39.5	45.0	56.9	64.2
6. Latin American Caribbean		-	20.2	37.7	43.2	53.4	54.8
B. CARIBBEAN		-	-	-	22.0	34.2	53.6
C. NORTH AMERICA		18.6	35.9	49.6	61.1	71.6	77.1
1. Canada		-	34.1	40.6	59.6	68.7	74.2
2. United States		20.7	36.1	50.6	61.4	72.0	77.5

Source: "Trends and Prospects in the Population of Urban Agglomerations, 1950-2000, as Assessed in 1973-75," Population Division, United Nations, ESA/P/WP.53, 1975.

TABLE 15

CITIES OF MORE THAN 100,000 INHABITANTS BY SIZE, POPULATION, AND AS PERCENTAGES OF URBAN POPULATION IN THE REGION OF THE AMERICAS AND ITS SUBREGIONS AND AREAS YEAR 2000

REGIONS, SUBREGIONS AND AREAS	SIZE						
	Total of 100,000 and more	5 million and more	2 million to less than 5 million	1 million to less than 2 million	500,000 to less than 1 million	200,000 to less than 500,000	100,000 to less than 200,000
	NUMBER						
REGIONAL TOTAL	686	15	35	46	88	196	306
A. LATIN AMERICA	437	10	15	22	56	120	214
1. Andean Area	93	3	3	5	20	25	37
2. Southern Cone	44	2	1	3	5	11	22
3. Brazil	153	3	7	3	10	47	83
4. Central America	23	-	1	5	1	2	14
5. Mexico	101	2	1	4	18	28	48
6. Latin American Caribbean	23	-	2	2	2	7	10
B. CARIBBEAN	11	-	-	1	1	4	5
C. NORTH AMERICA	238	5	20	23	31	72	87
1. Canada	28	-	2	3	5	7	11
2. United States	210	5	18	20	26	65	76
	INHABITANTS (THOUSANDS)						
TOTAL OF THE REGION	531462	193334	113497	62750	59901	59610	42370
A. LATIN AMERICA	324432	135669	53121	31628	38755	35573	29686
1. Andean Area	73960	27620	10280	7851	15107	7705	5397
2. Southern Cone	35054	19097	2223	4144	3359	3233	2998
3. Brazil	112782	51160	25743	4268	6209	14019	11383
4. Central America	11954	-	2422	6377	661	526	1968
5. Mexico	75228	37792	4751	5923	12137	7998	6627
6. Latin American Caribbean	15454	-	7702	3065	1282	2092	1313
B. CARIBBEAN	3532	-	-	1037	542	1286	657
C. NORTH AMERICA	203508	57665	60376	30085	20604	22751	12027
1. Canada	21167	-	9514	3856	3726	2502	1569
2. United States	182341	57665	50862	26229	16878	20249	10458
	PROPORCION (%) OF URBAN POPULATION LIVING IN CITIES OF THIS SIZE AND LARGER SIZES						
REGIONAL TOTAL		27.5	43.6	52.5	61.0	69.4	75.5
A. LATIN AMERICA		30.2	42.1	49.1	57.7	65.7	72.3
1. Andean Area		30.2	41.4	50.0	66.5	74.9	80.8
2. Southern Cone		39.1	43.7	52.2	59.1	65.7	71.8
3. Brazil		31.2	47.4	50.1	53.9	62.5	69.6
4. Central America		-	11.8	42.8	46.0	48.6	58.2
5. Mexico		36.5	41.1	46.8	58.5	66.2	72.6
6. Latin American Caribbean		-	34.5	48.2	54.0	63.4	69.2
B. CARIBBEAN		-	-	19.9	30.4	55.1	67.7
C. NORTH AMERICA		23.0	47.2	59.2	67.4	76.5	81.3
1. Canada		-	37.0	52.0	66.5	76.3	82.4
2. United States		25.7	48.4	60.0	67.6	76.6	81.2

Source: "Trends and Prospects in the Population of Urban Agglomerations, 1950-2000, as Assessed in 1973-75," Population Division, United Nations, ESA/P/WP.53, 1975.

TABLE 16

WORLD'S FIFTY LARGEST CONURBATIONS IN DESCENDING ORDER OF POPULATION IN MILLIONS OF INHABITANTS, 1960-2000

Ordinal Number	1960		1970		1980		1990		2000	
1.	NEW YORK-NE.NJ.....	14.2	NEW YORK-NE.NJ.....	16.3	Tokio-Yokohama.....	19.7	Tokio-Yokohama.....	23.5	MEXICO, Ciudad de	31.6
2.	Londres	10.8	Tokio-Yokohama.....	14.9	NEW YORK-NE.NJ.....	17.9	MEXICO, Ciudad de	21.6	Tokio-Yokohama	26.1
3.	Tokio-Yokohama	10.7	Londres	10.5	MEXICO, Ciudad de	13.9	NEW YORK-NE.NJ.	20.1	SAO PAULO	26.0
4.	Rhein-Ruhr	8.7	Shanghai	10.0	SAO PAULO	12.5	SAO PAULO	18.7	NEW YORK-NE.NJ.	22.2
5.	Shanghai	7.4	Rhein-Ruhr	9.3	Shanghai	12.0	Shanghai	14.9	Calcuta	19.7
6.	Paris	7.4	MEXICO, Ciudad de	8.6	Londres	11.0	Seoul	14.3	RIO DE JANEIRO	19.4
7.	BUENOS AIRES	6.7	Paris	8.4	LOS ANGELES-LONG BEACH	10.7	Peking	14.2	Shanghai	19.2
8.	LOS ANGELES-LONG BEACH	6.5	LOS ANGELES-LONG BEACH	8.4	BUENOS AIRES	10.4	Rio de Janeiro	14.1	Gran Bombay	19.1
9.	Moscú	6.3	BUENOS AIRES	8.3	Peking	10.2	Calcuta	13.7	Peking	19.1
10.	CHICAGO,N.W.INDIANA ..	6.0	SAO PAULO	7.8	RIO DE JANEIRO	10.0	Gran Bombay	13.1	Seoul	18.7
11.	Osaka-Kobe	5.7	Osaka-Kobe	7.6	Rhein-Ruhr	9.9	LOS ANGELES-LONG BEACH	13.0	Jakarta	16.9
12.	Calcuta	5.5	Moscú	7.1	Paris	9.9	BUENOS AIRES	12.3	Cairo-Giza-Imbaba	14.4
13.	MEXICO, Ciudad de	4.9	Peking	7.0	Osaka-Kobe	9.7	Cairo-Giza-Imbaba	12.0	Karachi	15.9
14.	Milán	4.5	Calcuta	6.9	Calcuta	9.6	Londres	11.7	LOS ANGELES-LONG BEACH	14.8
15.	Pekín	4.5	RIO DE JANEIRO	6.9	Seoul	9.4	Jakarta	11.5	BUENOS AIRES	14.0
16.	RIO DE JANEIRO	4.4	CHICAGO,N.W.INDIANA ..	6.7	Gran Bombay	8.7	Osaka-Kobe	11.4	Teherán	13.8
17.	SAO PAULO	4.4	Gran Bombay	5.8	Cairo-Giza-Imbaba	8.4	Paris	11.2	Delhi	13.2
18.	Gran Bombay	4.1	Cairo-Giza-Imbaba	5.7	Moscú	8.2	Rhein-Ruhr	10.6	Londres	12.7
19.	Cairo-Giza-Imbaba	3.7	Milán	5.5	CHICAGO,N.W.INDIANA...	7.5	Karachi	10.2	Manila	12.7
20.	FILADELFIA-N.J.	3.6	Seoul	5.4	Jakarta	7.2	Teherán	9.4	Osaka-Kobe	12.6
21.	DETROIT	3.5	Jakarta	4.3	Milán	6.5	Moscú	9.4	Paris	12.3
22.	Leningrado	3.5	Filadelfia-N.J.	4.0	Karachi	6.0	Delhi	9.0	LIMA-CALLAO	12.1
23.	Tientsin	3.4	Tientsin	4.0	Teherán	5.8	Manila	8.6	Rhein-Ruhr.....	11.3
24.	Nápoles	3.2	Detroit	4.0	Delhi	5.7	CHICAGO-N.W.INDIANA...	8.4	Bangkok-Thonburi	11.0
25.	Hong Kong	2.7	Leningrado	4.0	Manila	5.6	LIMA-CALLAO	8.3	Baghdad	10.9
26.	Jakarta	2.7	Hong Kong	3.7	LIMA-CALLAO	5.2	Baghdad	7.5	Moscú	10.6
27.	Birmingham	2.7	Nápoles	3.6	Tientsin	4.7	Milán	7.4	Madrás.....	10.4
28.	Manchester	2.5	Delhi	3.5	Madrás	4.7	Madrás	7.1	BOGOTA	9.5
29.	Shenyang	2.5	Manila	3.5	Leningrado	4.6	Bangkok-Thonburi	7.0	Lagos	9.4
30.	SAN FRANCISCO-OAKLAND.	2.4	Teherán	3.4	Baghdad	4.6	Bogotá	6.8	CHICAGO,N.W.INDIANA...	9.3
31.	Katowise	2.4	Karachi	3.3	DETROIT	4.5	Estambul	6.0	Kinshasa	9.1
32.	BOSTON	2.4	Madrid	3.1	FILADELFIA-N.J.	4.5	Tientsin	5.8	Estambul	8.3
33.	Seoul	2.4	Madrás	3.0	BOGOTA	4.4	Kinshasa	5.6	Milán	8.3
34.	Delhi	2.3	SAN FRANCISCO-OAKLAND.	3.0	Hong Kong	4.3	Lagos	5.4	Lahore	7.7
35.	Madrid	2.3	Roma	2.9	Bangkok-Thonburi	4.3	Leningrado	5.3	Tientsin	7.5
36.	Roma	2.3	LIMA-CALLAO	2.9	Madrid	4.1	DETROIT	5.1	Rangún	7.4
37.	Manila	2.2	Shenyang	2.8	Nápoles	4.0	FILADELFIA-N.J.	5.1	GUADALAJARA	6.2
38.	Wuhan	2.2	Birmingham	2.8	Estambul	4.0	Lahore	5.1	Lyallpur	6.2
39.	Berlín	2.2	Katowise	2.8	Roma	3.5	Madrid	5.0	Leningrado	6.1
40.	Chungking	2.2	Montreal	2.7	SANTIAGO DE CHILE ...	3.5	Hong Kong	5.0	CARACAS	6.0
41.	Sydney	2.1	SANTIAGO DE CHILE	2.7	SAN FRANCISCO-OAKLAND.	3.4	Rangún	4.9	Dacca	5.9
42.	Hamburgo	2.1	Sydney	2.7	MONTREAL	3.4	CARACAS	4.6	Madrid	5.9
43.	MONTREAL	2.0	BOSTON	2.7	Wuhan	3.4	Nápoles	4.5	Wuhan	5.8
44.	Cantón	2.0	Estambul	2.6	Sydney	3.3	Wuhan	4.4	BELO HORIZONTE	5.7
45.	Glasgow	1.9	BOGOTA	2.6	Katowise	3.3	SANTIAGO DE CHILE	4.3	DETROIT	5.7
46.	Leeds-Bradford	1.9	Wuhan	2.6	CARACAS	3.2	GUADALAJARA	4.2	FILADELFIA-N.J.	5.6
47.	SANTIAGO DE CHILE	1.9	TORONTO	2.5	TORONTO	3.2	MONTREAL	4.2	Alejandría	5.6
48.	Teherán	1.9	Baghdad	2.5	Lahore	3.1	Alejandría	4.1	Hong Kong	5.5
49.	Karachi	1.8	Manchester	2.5	Rangún	3.1	Roma	4.1	Ahmedabad	
50.	Melbourne	1.8	Bangkok-Thonburi	2.5	WASHINGTON,D.C.-MD.VA.	3.1	BELO HORIZONTE	4.0	Bangalore	

1.3 ANALYSIS OF MORTALITY AND MORBIDITY

1.3 ANALYSIS OF MORTALITY AND MORBIDITY

The efforts made by the Member Governments to improve health levels within the constraints imposed by the existing socioeconomic environment are indicated by the changes that have occurred in mortality and morbidity. The purpose of this section is to spotlight the salient features from a regional standpoint.

1.3.1 Mortality trends

During the ten-year period 1970-80 general mortality in Latin America fell from an average of 9.4 deaths per thousand inhabitants in 1970-75 to 8.5 per thousand in 1975-80. This downward trend will continue through the last two decades of the century to reach a gross mortality rate of 6.0 deaths per thousand inhabitants in 1995-2000.

There are appreciable differences between areas and countries of Latin America. Thus, while the Southern Cone, because of its aged population structure, will have a gross mortality rate that remains static at 8.7 per thousand, mortality in the Andean Area, on the other hand, will decline from 9.6 per thousand in 1975-80 to 6.5 in 1995-2000. Striking reductions are expected in the most populated countries, Brazil and Mexico, whose respective rates will drop from 7.8 to 5.3 per thousand and from 7.6 to 5.2 per thousand between the same two five-year periods.

The non-Spanish speaking countries and territories of the Caribbean* (excluding Haiti), which have reduced their general mortality to an average of 6.6 per thousand in the last five years, will lower this rate still further, though not as greatly, to arrive at a level of 5.9 deaths per thousand inhabitants in the final five years of the century.

North America, where the gross mortality rates were slighty above 9.0 per thousand over the decade and dropped slightly towards the end, will post an increase over the coming two decades to enter the 1995-2000 five-year period with a rate of 9.8 deaths per thousand inhabitants. At first, this rise will be primarily due to the aging of the population, with a possible maintaining or increase of the specific mortality rates in the older age group.

The reduction of general mortality in Latin America over 1970-80 was partly caused by a lowering of mortality rates among children under five, and especially among infants. Infant mortality in the Region averaged a more than one-third reduction between 1970 and 1980, from around 105.5 infant deaths per thousand births in 1965-70 to 66.8 per thousand in 1975-80; similarly, deaths among children aged one to four fell from 8.5 to 4.3 per thousand children of that age.

*Includes the continental countries and territories of Belize, French Guiana, Guyana and Suriname.

Infant mortality in the Caribbean also declined during the decade, from an estimated 43.0 deaths per thousand live births in 1965-70 to 28.4 per thousand in 1975-80. Similarly, mortality rates among children aged one to four fell during the same period from 4.3 per thousand to 2.4 per thousand.

North America, with an infant mortality rate of slight less than 20 per thousand in 1970, reached a level of 12.5 infant deaths per thousand live births in 1980. Deaths among children of one to four--2.1 per thousand in 1965-70--were down to 1.5 per thousand in the five-year period 1975-80.

		1965-1970	1970-1975	1975-1980	1985-1990
INFANT MORTALITY (deaths of infants under 1 year per thousand births)	Latin America	85.2	66.8	40.0	26.4
	Caribbean	43.0	28.4	20.9	17.7
	North America	25.7	21.8	20.4	19.6
CHILD MORTALITY 1.4 age group (deaths of children aged 1 to 4 per thousand children in that age group)	Latin America	8.4	6.3	3.9	2.2
	Caribbean	4.3	2.4	1.4	0.6
	North America	2.1	1.5	1.3	1.2

However overoptimistic expectations may have been, environmental conditions in Latin America did improve over the 1970-80 ten-year period, and the reduction in child mortality can be attributed to the impact of immunization programs and the proliferation of measures to improve environmental sanitation and nutrition. It is estimated that in the last five years of this century there will be very few countries in the Region with infant mortality rates above 30 per thousand live births.

Another factor that has contributed to the fall in mortality has been the reduction in the role of communicable.

Infectious and parasitic diseases are still major causes of death in the Region, mainly in the Andean area and the Central American isthmus. Mortality rates from tuberculosis and diseases for which there are vaccines of proven effectiveness declined during 1970-80. The percentage of deaths from these causes, averaged over the decade, was around 6%, with values varying widely among the countries of the subregion from 0.6% to 12%. The proportion has dropped considerably in the last few years, so that deaths from these causes are probably around 2% of the total today.

Deaths from diarrheal diseases and others for which control measures are based primarily on environmental measures still account for a high proportion of all deaths. As an average during the seventies, more than one-fifth of all deaths in certain Central American countries were from this group of diseases. Similarly, the proportion of deaths from these causes in the Andean countries is possibly still 10%.

Deaths from acute respiratory diseases also account for a high proportion of the total, probably between 10% to 15%. In certain countries in the Andean area and the Central American isthmus the percentage is considerably higher.

Perinatal causes account for almost 5% of all deaths in Latin America, though actual proportions vary widely.

In North America, the proportion of deaths from infectious and parasitic diseases, the respiratory system and perinatal causes account for less than 8% of the total mortality. Mortality from tumors, on the other hand, features more prominently, causing more than 20% of all deaths in this subregion. In Latin America figures close to this are only found in the Southern Cone, Costa Rica and certain Caribbean countries. Elsewhere in the Hemisphere tumors account for about 6-7% of all deaths. As the countries make further advances in controlling mortality from infectious diseases and the trend toward urbanization progresses, the proportion of deaths from these other causes is rising. Similarly, there has been a significant increase in the proportion of deaths from cardiovascular diseases, which ranges from 10% to 45% in Latin America and stands at around 49% in North America.

Nutrition-related diseases, together with diabetes, anemias and some metabolic disorders that in many cases are the underlying cause of deaths attributed to other diseases, were the direct cause of more than 4 to 5% of all deaths. In North America, this percentage averaged 2.6% over the decade. Finally, deaths from accidents, notably traffic accidents and other violent causes such as suicide and homicide, are on the relative increase in Latin America, accounting for an average of 10 to 15% of total deaths over the decade in Latin America and the Caribbean, and for slightly less than 10% of them in North America.

1.3.2 Morbidity

Information systems on morbidity are not completely adequate; however, the available information does support certain projections about developments in the next two decades. Morbidity and mortality from diphtheria, tetanus, whooping cough, poliomyelitis, measles and tuberculosis have not been reduced to the extent proposed in the Ten-Year Health Plan for the Americas. However, the Governments of the Region have adopted the Expanded Program of Immunizations and are making the efforts needed to implement the program, although the results cannot be expected before a few years have passed. It is, therefore, confidently expected that the impact of this group of diseases on morbidity and mortality will be be reduced to an acceptable level, so as to reach, probably within the next two decades, proportions comparable to those in North America, i.e. around 0.2% of all deaths. Upon extension of the coverage of health services, it will be possible to expand tuberculosis control measures that can easily be incorporated into primary care, epecially if case control is stepped-up when the services become more accessible to the population.

Diarrheal diseases, the main cause of morbidity and mortality among children, are connected with problems of the physical and social environment, malnutrition and food hygiene. Despite the obvious difficulties in tackling these problems at their roots, as the assistance of other sectors is required, it is hoped that appropriate control measures can gradually be adopted. During the decade the Governments intensified their efforts in the field of oral rehydration and environmental sanitation. If these efforts are continued and the necessary financing is made available, they will appreciably reduce morbidity to levels possibly comparable with those currently found only in some countries of the Southern Cone and the Latin American Caribbean, and in North America.

Acute respiratory diseases are still a problem in terms of both morbidity and mortality. They are estimated to cause more than 50,000 deaths a year in Latin America and the Caribbean, their greatest impact being among children and the aged. Preventive measures that can be adopted are mainly vaccines that will require specific programs for their application. Mortality from these causes in North America is still 5% of all deaths, but is much higher in Latin America, although it is conceivable that rates of around 5% might be achieved over the next 20 years.

Leprosy is a significant problem in 14 countries of the Region, where almost a quarter of a million cases have been recorded. Advances made in solving this problem during the decade were only brought about in the last few years through the use of new drugs and the opening up of fields of research aimed at developing an effective vaccine. It is believed that the size of this problem will be reduced considerably over the next two decades.

Sexually transmitted diseases have become more serious in recent years owing to changes in standards of behavior. Syphilis and gonorrhea remain cause for concern, and morbidity from nongonococcal urethritis has increased. Control of these diseases is generally confined to urban areas and covers an unknown, but obviously small, proportion of the infected population. In the future, Governments will have to exercise greater surveillance and make greater efforts to reduce the harm done by these diseases.

Viral diseases and rickettsias, which include yellow fever, dengue, the arboviral diseases, the encephalides and hemorrhagic fevers, have remained at the same level or become greater problems in some cases owing to the lack of laboratory diagnostic services and proper control methods. Significant epidemics of dengue have been observed in some countries of the Region, together with a proliferation of foci of hepatitis and other viral diseases. Control measures for these diseases will be intensified in the future, as they are associated with environmental sanitation campaigns.

Parasitic diseases, such as Chagas' disease, leishmaniases, schistosomiasis and filariasis, are highly prevalent in several countries of the Region. Governments are intensifying their efforts to provide adequate laboratory services, undertake epidemiological surveillance and vector control measures and, in general, to control these diseases. Certain countries have a definite interest in conducting case-finding research. It can be presumed that the impact of this group of diseases will be lessened over the next two decades.

Malaria is a problem of very long standing. The appearance of insecticide-resistant strains of the vector and drug-resistant strains of the parasite has produced a number of difficulties. This, together with the administrative and operating problems besetting the programs, has held back progress in recent years with the result that the target of interruption of transmission for 90% of the population living in the originally malarious area could not be met. The percentage of interruption achieved was only 75.3%, and a veritable explosion of the disease was observed in some countries in the latter part of the past decade. The new measures now being applied by the Governments warrant the expectation that the Ten-Year Plan goal can be achieved within the next decade.

The expected developments in the control of communicable diseases, together with a reduction in general mortality that is significantly increasing life expectancy at birth, will also help change the age structure of the population, so that a considerable increase may be expected in the population groups most at risk from chronic and degenerative diseases of late life. This fact, in conjunction with the changes in lifestyles that are expected during the next 20 years, make it likely that cancer, cardiovascular, and degenerative diseases and mental illness, will increase to such an extent as to exert a major impact on health care in the countries of the Region.

At the middle of the decade, deaths caused by tumors in Latin America and the Caribbean accounted for widely varying proportions of the total, ranging from 3 to 22% with a probable median around 7%. In North America the proportion is 25% of all deaths and, in view of the expected pattern of development of the countries of Latin America, percentages very close to 20% of all deaths are likely by the end of the century. On the assumption that general mortality in Latin America in the last five years of the century will be 6 per thousand, deaths from tumors could number 1.2 per thousand inhabitants by that time, which would represent almost 690,000 deaths a year in that period. In view of the special medical care required for the treatment of cancer, the magnitude of the effort required from the sector regarding this type of disease alone can easily be understood.

Cardiovascular diseases of all types probably cause, on the average, about one-fourth of all deaths in Latin America and the Caribbean. In North America, on the other hand, this proportion is two-fourths. Making assumptions on a similar basis as for tumors, a mortality rate of 3 per

thousand could be expected from cardiovascular diseases by the last five years of the century, which would mean a total of approximately 1.7 million deaths a year in the Region. Here, too, the same remarks apply regarding the efforts the sector will have to make to provide health care for so high a number of cases.

Increasing urbanization, longer life expectancy at birth and the changes expected in behavior standards in the Latin American countries are bound to increase the incidence of moderate neuroses, mental retardation, convulsive disorders, serious alcoholism and drug dependency. Mental health care programs will have to further deemphasize psychiatric care so as to give greater attention to promotion and prevention. In any event, the considerable increase in cases of mental illness will call for additional efforts over and beyond what is already being done in some countries.

TABLE 1

PROPORTIONAL MORTALITY BY AGES IN THE COUNTRIES OF THE REGION OF THE AMERICAS AROUND 1970 AND 1978

COUNTRY	YEAR	NUMBER OF DEATHS	PERCENTAGE OF DEATHS IN EACH AGE CLASS						
			Under 1 year	1-4 years	5-14 years	15-44 years	45-64 years	65 years and older	Unknown
A. LATIN AMERICA									
1. ANDEAN AREA									
Colombia	1969	153878	27.4	15.8	5.3	13.7	14.8	22.4	0.6
	1977	145426	21.9	9.5	4.1	16.4	17.6	29.6	0.8
Ecuador	1970	60495	29.1	21.5	5.7	12.4	9.8	20.2	1.2
	1977	59145	26.8	18.6	5.1	13.5	11.2	24.0	0.8
Peru	1970	112042	27.9	20.3	5.1	13.1	10.7	18.9	4.0
	1977	83107	28.9	15.0	4.1	12.6	12.1	24.3	3.0
Venezuela	1970	68549	28.2	11.0	3.8	13.3	17.9	25.6	0.1
	1978	72830	22.4	5.5	3.2	16.7	20.1	32.0	0.2
2. SOUTHERN CONE									
Argentina	1970	222154	14.4	2.8	1.4	11.0	24.7	44.7	0.9
	1978	233482	11.6	2.0	1.1	9.7	24.1	50.5	1.1
Chile	1970	83166	25.0	4.4	2.4	13.2	20.3	34.6	0.1
	1978	72321	12.7	2.1	1.9	13.7	23.8	45.5	0.3
Paraguay (information area)	1970	12047	24.4	9.9	4.3	12.3	13.6	34.8	0.6
	1978	13015	23.2	8.5	3.2	12.9	15.1	36.0	1.1
Uruguay	1970	26441	10.4	1.1	0.9	8.0	24.0	55.0	0.6
	1978	28033	8.9	0.8	0.7	6.5	23.0	59.6	0.4
3. CENTRAL AMERICA									
Costa Rica	1970	11504	30.9	10.0	4.0	10.8	14.2	29.6	0.5
	1978	8625	17.5	2.7	2.4	15.0	18.6	43.4	0.5
El Salvador	1970	35129	26.9	16.9	6.9	13.7	13.7	21.1	0.8
	1974	30533	27.7	10.8	4.7	16.3	14.8	24.6	1.0
Guatemala	1970	77333	23.9	22.1	9.4	16.5	12.7	15.3	0.1
	1978	63998	32.1	18.6	6.7	15.1	11.3	15.4	0.7
Honduras	1970	20285	17.5	19.0	10.2	19.0	14.3	18.7	1.3
	1978	18127	21.6	14.7	6.0	17.0	13.5	20.3	6.9
Nicaragua	1969	15938	27.7	14.3	4.5	17.9	14.0	16.3	5.2
	1977	12492	27.7	8.8	4.2	18.6	14.4	24.9	1.4
Panama	1970	10225	21.1	13.7	5.3	13.0	15.9	29.9	1.1
	1974	9015	18.5	10.6	5.5	14.1	16.7	34.6	-
4. MEXICO	1970	485656	30.1	14.5	4.8	14.1	13.2	23.3	0.0
	1974	433104	28.1	8.8	4.1	17.1	15.2	26.6	0.2
5. LATIN AMERICAN CARIBBEAN									
Cuba	1971	52299	17.9	1.7	1.7	9.8	18.3	50.5	0.2
	1978	54949	6.0	1.5	1.9	11.2	19.7	59.3	0.3
Puerto Rico	1970	18080	10.7	1.5	1.7	10.8	21.4	53.6	0.3
	1977	19895	7.6	0.8	1.3	11.3	20.7	58.0	0.3
Dominican Republic	1970	24925	32.8	13.1	4.0	13.3	12.5	22.6	1.8
	1978	23127	25.1	9.2	4.0	14.3	14.9	28.6	3.9
B. CARIBBEAN									
Bahamas	1972	1100	15.1	3.7	2.0	21.1	25.9	32.0	0.2
	1975 */	1023	13.4	3.0	2.4	19.3	25.7	36.2	-
Barbados	1970	2064	10.9	2.3	1.6	7.7	20.1	57.0	0.5
	1978	2050	6.1	1.3	1.3	5.7	18.9	66.0	0.7
Jamaica	1971	14437	12.1	7.4	2.7	8.6	21.7	46.7	0.7
Surinam	1971	2640	20.4	5.6	3.0	12.5	19.7	38.8	-
	1978	2231	20.8	3.0	1.8	13.3	20.4	40.3	0.4

*/ Bahamas 1975 Annual Vital Statistics Report.

TABLE 1 (CONT'D)

PROPORTIONAL MORTALITY BY AGES IN THE COUNTRIES OF THE REGION OF THE AMERICAS AROUND 1970 AND 1978

COUNTRY	YEAR	NUMBER OF DEATHS	PERCENTAGE OF DEATHS IN EACH AGE CLASS						
			Under 1 year	1-4 years	5-14 years	15-44 years	45-64 years	65 years and older	Unknown
B. CARIBBEAN									
Trinidad and Tobago	1970	6956	12.4	2.8	2.6	11.6	26.8	43.7	-
	1976	7388	9.4	1.8	1.8	11.5	27.0	48.6	0.0
Dominica	1970	583	19.4	8.6	4.5	7.0	14.1	31.7	14.8
	1977	520	8.9	3.1	2.5	11.7	17.9	48.5	7.4
Saint Lucia	1970	862	24.5	7.1	3.9	9.4	18.9	35.4	0.8
	1977	817	9.7	5.0	1.7	10.5	22.8	48.1	2.2
Saint Vincent	1970	738	26.4	9.8	3.7	8.1	15.3	36.3	0.4
	1977	778	22.4	8.1	1.4	6.7	13.9	44.1	3.5
Belize	1970	797	28.4	9.3	3.9	8.0	13.8	34.8	1.9
	1977	759	28.3	7.2	3.3	8.0	12.8	36.5	3.8
French Guiana	1970	361	15.2	5.3	2.8	13.6	24.7	34.9	3.6
	1978	454	11.2	4.0	3.5	15.9	20.5	42.3	2.6
Martinique	1970	2538	12.5	3.8	2.5	12.1	27.4	41.3	0.5
	1975	2190	7.6	1.8	1.8	8.3	26.8	52.9	0.8
Antigua	1970	411	8.3	3.2	1.7	15.6	30.2	37.5	3.6
	1978	402	7.5	1.7	3.2	10.0	26.9	44.3	6.5
Cayman Islands	1973	76	1.3	-	-	11.8	34.2	46.1	6.6
	1978	71	14.1	-	-	9.9	21.1	54.9	-
Virgin Islands (U. K.)	1970	57	19.3	1.8	7.0	28.1	21.1	22.8	-
	1978	68	13.2	7.4	1.5	8.8	22.1	47.1	-
Saint Kitts, Nevis	1970	488	11.5	4.7	4.1	12.5	21.3	42.8	3.1
	1978	466	9.4	3.6	2.1	7.1	21.9	54.5	1.3
C. NORTH AMERICA									
Canada	1970	155961	4.5	0.8	1.3	8.4	23.2	61.8	0.0
	1978	168178	2.6	0.5	0.9	8.5	22.9	64.6	0.1
United States	1970	1921031	3.9	0.6	0.9	8.2	24.9	61.5	0.0
	1977	1899597	2.5	0.4	0.7	8.0	23.0	65.4	0.0

TABLE 2

PROPORTIONAL MORTALITY BY CAUSES IN THE COUNTRIES OF THE REGION OF THE AMERICAS
AROUND 1970 AND 1978

COUNTRY	YEAR	NUMBER OF DEATHS	NUMBER OF DEATHS FOR KNOWN CAUSES	PERCENTAGE OF DEATHS BY CAUSE CLASS*					
				"A"	"B"	"C"	"D"	"E"	"F"
A. LATIN AMERICA									
1. ANDEAN AREA									
Colombia	1969	153878	136275	38.0	5.6	7.7	19.0	29.7	(11.4)
	1977	145426	132881	27.8	5.4	10.2	26.4	30.3	(8.6)
Ecuador	1970	60495	47396	48.6	5.8	4.9	9.4	31.3	(21.7)
	1977	59145	49809	45.7	4.0	5.7	14.0	30.6	(15.8)
Peru	1970	112042	100328	58.1	3.6	5.2	8.4	24.7	(10.5)
	1977	81307	74881	49.6	4.8	7.6	11.5	26.5	(7.9)
Venezuela	1970	68549	52942	30.0	8.9	10.8	20.6	29.8	(22.8)
	1978	72830	62265	20.1	8.5	11.8	25.7	34.0	(14.5)
2. SOUTHERN CONE									
Argentina	1970	222154	207299	13.2	3.7	17.7	39.6	25.7	(6.7)
	1978	233482	223366	8.7	4.6	18.2	44.5	24.1	(4.5)
Chile	1970	83166	78615	30.6	5.6	12.8	23.2	27.9	(5.5)
	1978	72321	64368	16.5	4.6	16.9	27.2	34.8	(11.0)
Paraguay	1970	12047	9696	37.4	5.9	8.4	21.6	26.8	(19.5)
	1978	13015	10460	31.1	5.6	8.9	27.0	27.4	(19.6)
Uruguay	1970	26441	24727	9.0	3.7	22.6	41.7	22.9	(6.5)
	1978	28033	26104	7.9	4.1	23.4	44.3	20.3	(6.9)
3. CENTRAL AMERICA									
Costa Rica	1970	11504	10251	37.2	6.4	11.2	21.9	23.3	(10.9)
	1978	8625	7936	12.0	7.1	18.3	25.9	36.7	(8.0)
El Salvador	1970	35129	24087	51.4	3.4	3.6	6.0	35.5	(31.4)
	1974	30533	20379	38.6	6.7	4.4	9.1	41.2	(33.3)
Guatemala	1970	77333	64746	68.6	5.2	2.2	4.4	19.7	(16.3)
	1978	63998	54226	54.5	11.1	3.5	6.9	24.0	(15.3)
Honduras	1970	20285	12924	51.0	1.9	3.9	10.4	32.9	(36.3)
	1977	18567	12577	41.6	2.8	4.7	16.8	34.1	(32.2)
Nicaragua	1970	15938	11725	47.5	2.5	3.9	14.5	31.7	(26.4)
	1977	12492	9125	37.5	0.8	4.9	21.4	35.3	(27.0)
Panama	1970	10225	8298	36.1	5.3	7.9	23.5	26.8	(18.8)
	1974	9015	7543	28.5	5.7	9.8	25.4	30.6	(16.5)
4. MEXICO	1970	485656	420352	48.6	6.0	4.6	12.2	28.7	(13.4)
	1974	433104	382510	37.8	5.8	5.7	16.4	34.3	(11.7)
5. LATIN AMERICAN CARIBBEAN									
Cuba	1971	52299	51882	15.6	7.1	17.1	37.3	22.9	(0.8)
	1978	54949	54774	11.6	2.6	17.9	43.9	23.9	(0.3)
Puerto Rico	1970	18080	17289	11.2	5.8	15.7	38.5	28.8	(4.4)
	1977	19896	19444	9.2	4.3	16.1	43.4	26.9	(2.3)
Dominican Republic	1970	24925	15048	36.0	15.8	6.0	13.0	29.3	(39.6)
	1978	23127	15757	27.6	10.8	7.3	21.3	33.0	(31.9)
B. CARIBBEAN									
Bahamas	1972	1100	1001	13.9	6.7	12.4	33.5	33.6	(9.0)
	1975	1006	968	13.3	19.3	13.3	27.5	26.5	(3.8)
Barbados	1970	2064	1960	11.2	5.5	12.5	43.8	27.0	(5.0)
	1978	2050	1980	8.8	3.0	17.9	44.7	25.5	(3.4)
Jamaica	1971	14437	13036	18.3	4.3	12.4	38.5	26.5	(9.7)
Surinam	1971	2640	1565	15.5	6.6	7.0	32.8	38.1	(40.7)
	1978	2231	1899	15.2	13.8	9.3	31.3	30.4	(14.9)
Trinidad and Tobago	1970	6956	6652	12.3	5.4	10.4	43.8	28.1	(4.4)
	1976	7388	7076	13.7	3.7	9.5	41.5	31.7	(4.2)
Dominica	1970	583	496	28.8	9.9	9.3	29.6	22.4	(14.9)
	1977	520	413	16.2	6.1	13.1	36.8	27.8	(20.6)
Saint Lucia	1968	784	653	31.4	10.3	7.4	22.8	28.2	(16.7)
	1977	815	653	18.4	3.7	11.6	38.3	28.0	(19.9)
Saint Vincent	1970	738	604	23.3	9.6	8.8	31.1	27.2	(18.2)
	1978	742	649	23.5	7.9	9.2	32.7	27.0	(12.5)

TABLE 2 (CONT'D)

PROPORTIONAL MORTALITY BY CAUSES IN THE COUNTRIES OF THE REGION OF THE AMERICAS
AROUND 1970 AND 1978

COUNTRY	YEAR	NUMBER OF DEATHS	NUMBER OF DEATHS FOR KNOWN CAUSES	PERCENTAGE OF DEATHS BY CAUSE CLASS*					
				"A"	"B"	"C"	"D"	"E"	"F"
B. CARIBBEAN (Cont.)									
Belize	1970	797	587	32.4	10.1	8.5	26.7	22.3	(26.3)
	1977	759	569	28.6	13.2	8.4	23.6	26.2	(25.0)
French Guiana	1970	361	309	6.5	12.6	8.7	22.0	50.2	(14.4)
	1978	454	367	7.6	7.1	14.4	36.0	34.9	(19.2)
Martinique	1970	2538	2033	15.7	5.6	14.2	26.3	38.2	(19.9)
	1975	2190	1856	9.2	2.3	15.8	34.1	38.5	(15.3)
Antigua	1970	411	375	12.8	2.9	13.6	44.5	26.1	(8.8)
	1978	402	364	7.1	7.7	16.2	39.6	29.4	(9.5)
Cayman Islands	1973	76	72	8.3	1.4	15.3	51.4	23.6	(5.3)
	1978	71	71	2.8	8.5	14.1	53.5	21.1	(-)
Virgin Islands (U. K.)	1970	57	54	13.0	14.8	9.3	29.6	33.3	(5.3)
	1978	31	31	22.6	-	6.5	48.4	22.6	(-)
Saint Kitts, Nevis	1978	466	418	13.2	4.5	9.8	45.2	27.3	(10.3)

*CAUSE A includes: Tuberculosis (010-019), Diphtheria (032), Whooping Cough (033), Tetanus (037), Acute Poliomyelitis (040-043), Smallpox (050), Measles (055), Typhoid Fever (001), Paratyphoid and other Samonelloses (002, 003), Bacillary Dysentery and Amebiasis (004, 006), Enteritis and other Diarrheal diseases (008, 009), Plague (020), Yellow Fever (060), Rabies (071), Typhus and other Rickettsial diseases (080-083), Malaria (084), Influenza (470-474), Pneumonia (480-486), Bronchitis, Emphysema and Asthma (490-493), Syphilis and its sequelae (090-097), Scarlet Fever and Streptococcus Angina (034), Meningoccal infections (036), Leprosy (030), Other infectious and parasitic diseases (000, 005, 007, 021-027, 031, 035, 038, 039, 044-046, 051-054, 056, 057, 061-070, 072-079, 085-089, 098-136).

CAUSE B includes: Causes of perinatal mortality (760-779).

CAUSE C includes: Malignant Tumors (140-209), Benign and unspecified tumors (210-239).

CAUSE D includes: Active Rheumatic Fever (390-392), Chronic Rheumatic Heart diseases (393-398), Hypertensive diseases (400-404), Ischemic Heart diseases (410-414), Other heart diseases (420-429), Cerebrovascular diseases (430-438), Other diseases of the circulatory system (440-458).

CAUSE E includes: Nontoxic Goiter and Thyrotoxicosis (240-242), Diabetes (250), Avitaminosis and other nutritional deficiencies (260-269), Anemias (280-285), Hepatic Cirrhosis (571), Complications of Pregnancy, Delivery and Puerperium (630-678), Congenital anomalies (740-759), Motor vehicle accidents (E810-E823), Other accidents (E800-E807, E825-E949), Suicide (E950-E959), Homicide and wounds inflicted in war operations (E960-E999), Meningitis (320), Other diseases of the respiratory apparatus (460-466, 500-519), Peptic Ulcer (531-533), Appendicitis (540-543), Intestinal Obstruction and Hernia (550-553, 560), Other diseases of the digestive apparatus (520-530, 534-537, 561-570, 572-577), Nephritis and Nephrosis (580-584), Other diseases of the genitourinary apparatus (590-629), Other specific diseases (the others).

CAUSE F includes: Ill-defined symptoms and conditions (780-796).

NOTE: The percentages for groups A-E are based on the total of all causes less those of group F, ill-defined symptoms and conditions. The percentages of group F are based on the total of all causes.

TABLE 3

MORTALITY AMONG INFANTS AND CHILDREN 1-4 YEARS OLD
AVERAGE ANNUAL RATES FOR LAST FIVE-YEAR PERIOD OF
EACH DECADA*

Region of the Americas, Subregions and Areas, 1965-2000

SUBREGIONS AND AREAS	Deaths of infants under one year of age per 1,000 live births				Deaths of children 1-4 years old per 1,000 children of those ages			
	1965-1970	1975-1980	1985-1990	1995-2000	1965-1970	1975-1980	1985-1990	1995-2000
REGIONAL TOTAL	53.3	41.5	31.2	23.9	5.4	4.1	2.8	1.8
A. LATIN AMERICA	85.2	66.8	40.0	26.4	8.4	6.3	3.9	2.2
1. ANDEAN AREA	105.5	75.9	46.5	27.1	10.4	7.6	4.4	2.3
2. SOUTHERN CONE	49.6	36.8	30.8	25.7	5.1	3.6	2.8	2.1
3. BRAZIL	87.3	66.8	37.9	23.9	8.6	6.2	3.7	1.8
4. CENTRAL AMERICA	125.3	90.0	60.2	35.3	12.8	8.9	6.1	3.4
5. MEXICO	78.5	49.6	34.9	26.8	7.8	5.1	3.3	2.2
6. LATIN AMERICAN CARIBBEAN	73.9	57.7	38.5	30.0	7.4	5.9	4.3	2.6
B. CARIBBEAN	43.0	28.4	20.9	17.7	4.3	2.4	1.4	0.6
C. NORTH AMERICA	25.7	21.8	20.4	19.6	2.1	1.5	1.3	1.2

*Rate estimates are based on the mortality hypoteses involved in the mean variant for development of the population used by the United Nations Population Division.

TABLE 4

NOTIFIED CASES OF SELECTED COMMUNICABLE DISEASES PER 100,000 INHABITANTS, (1)
BY COUNTRIES, 1970 AND MOST RECENT REPORTING YEAR a/ b/

COUNTRY	DIPHTHERIA		TETANUS		WHOOPING COUGH		MEASLES		POLIOMYELITIS	
	Rate		Rate		Rate		Rate		Rate	
	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979
A. LATIN AMERICA										
1. ANDEAN AREA										
Bolivia	-	0.8 c/	2.4 d/	1.8 c/	109.2	42.2	236.5	51.7	5.4	0.3 c/
Colombia	3.5	0.6	2.7	2.7	58.6	42.5	161.2 d/	68.9 c/	3.8	1.8 c/
Ecuador	2.3	0.3	...	1.5	28.1 d/	25.1	46.4 d/	11.1 c/	2.8	0.2 c/
Peru	0.7	1.4	4.5	1.1	126.7	78.2	371.3	43.6	2.4	0.5
Venezuela	2.0	0.0	14.0	-	123.9	12.8	555.7	192.0	1.7	0.4
2. SOUTHERN CONE										
Argentina	2.6	0.5	1.6	0.9	65.7	69.3	185.4	56.7	1.0	0.1
Chile	3.4	3.3	0.3	0.3	24.6	4.0	227.5	309.5	2.1	-
Paraguay	2.3	0.4	24.2	11.1	107.0	61.0	73.0	96.5	10.0	1.0
Uruguay	0.5	-	1.1	0.6	1.9	8.0	24.4	41.5	0.2	-
3. BRAZIL	6.7	3.8	2.7	2.3	...	28.7	-	51.2	2.5	1.9
4. CENTRAL AMERICA										
Costa Rica	3.2	-	5.0	0.1	71.0	14.4	266.1	318.4	1.3	-
El Salvador	11.8	-	7.9 e/	2.5	134.5	18.1	306.0	231.4	2.7	0.1
Guatemala	0.5	0.1	1.6	1.0	40.1	21.3	38.3	49.2	2.1	0.4
Honduras	0.1	0.1	6.9	1.3	84.2	68.8	158.1	137.3	...	6.3
Nicaragua	1.0	0.4	0.8	0.0	20.0	10.8	61.6	51.2	0.5	-
Panama	2.8	-	4.0	1.6	11.6	29.3	290.6	230.1	0.8	-
5. MEXICO	0.3	0.0	1.2	0.7 f/	35.4	7.1	101.5	47.9	4.2	1.1
6. LATIN AMERICAN CARIBBEAN										
Cuba	0.6	0.0	2.6	0.3	14.1	1.5	105.2	76.2	0.0	0.0
Haiti	0.8	0.1	13.7	1.4	16.0	4.4	24.4	5.3	0.1	0.0
Puerto Rico	-	-	0.5	0.3	3.7	0.2	36.6	12.8	-	-
Dominican Republic	10.3	3.8	7.8	4.8	62.7	13.3	44.2	127.0	0.2	0.2
B. CARIBBEAN										
Barbados	15.6	4.9	3.4	2.6	2.9	0.7	312.4	6.0	-	-
Guyana	9.7	0.6	...	3.5	38.1 a/	-	3.6	110.3	0.1 f/	-
Jamaica	2.4	0.4	4.9	0.6	20.1	1.7	124.6	3.8	0.3	-
Surinam	0.8	0.3	...	-	...	-	...	-	-	0.3
Trinidad and Tobago	4.7	0.1	2.7	2.8	20.5	4.1	71.1	34.2	0.3	-
Windward Islands	... d/	0.3	3.6	3.6	231.3	4.6	65.8	57.1	0.2	-
Belize	0.8	-	0.8	2.5	58.3	1.3	300.8	154.3	3.3 f/	1.9
Guadaloupe	37.0	0.6	5.2	-	0.6	-	2.1	11.7	0.3 f/	-
French Guiana	2.1 f/	-	-	1.5	3.9 f/	-	2.0	57.4	-	-
Martinique	0.3	0.3	2.7	4.0	1.5	-	18.6	-	-	-
Other Caribbean areas	0.5	-	1.0	-	-	-	74.0	651.4	-	-
C. NORTH AMERICA										
1. Canada	0.2	0.3	0.1	-	9.8	8.9	117.9	94.8	0.0	0.0
United States	0.2	0.0	-	0.0	2.1	0.6	23.2	6.1	0.0	0.0
Other areas (Bermuda)	-	-	-	-	5.8	5.0	184.6	21.7	-	-

a/ Data for 1979 are provisional.
b/ Excludes St. Pierre et Miquelon, Falkland Islands, Netherlands Antilles and Montserrat.
c/ Data for 1978.
d/ Data for 1971.
e/ Data for 1972.
f/ Data for 1969.
... No information.
- No cases.

TABLE 4 (CONT'D)

NOTIFIED CASES OF SELECTED COMMUNICABLE DISEASES PER 100,000 INHABITANTS, (2)
BY COUNTRIES, 1970 AND MOST RECENT REPORTING YEAR a/ b/

COUNTRY	AMEBIASIS		BACILLARY DYSENTERY		TYPHOID FEVER		SYPHILIS		GONOCOCCAL INFECTIONS	
	Rate		Rate		Rate		Rate		Rate	
	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979
A. LATIN AMERICA										
1. ANDEAN AREA										
Bolivia	33.2 c/	32.7 g/	17.1	12.1 g/	20.6	20.2 g/	51.9	29.5 g/	58.5	34.4 g/
Colombia	...	-	...	-	33.4	32.2	72.9	50.8	188.4	122.9
Ecuador	...	-	...	-	35.1 h/	39.3 f/	31.7 d/	20.4	...	44.7 g/
Peru	20.8	-	59.3	21.1	91.6	45.8 f/	47.8	4.0	104.1	13.5
Venezuela	185.1	104.0	8.2	0.0	2.8	0.4 f/	156.5 i/	110.0	470.2	60.2 g/
2. SOUTHERN CONE										
Argentina	6.6	-	6.6	1026.6 g/	5.8	2.6	23.0	36.6	44.2	60.2 g/
Chile	1.8	1.5 g/	0.8 c/	-	54.9	95.6 f/	15.1	80.0	...	97.0 g/
Paraguay	...	-	33.1	7.6	6.2	5.2 f/	180.8	75.2	67.0	59.1
Uruguay	0.1	-	0.0	-	5.9	0.6 f/	10.5	107.8	7.7	75.1
3. BRAZIL	...	-	...	-	4.0	2.9	...	...	...	-
4. CENTRAL AMERICA										
Costa Rica	24.1 d/	0.5	18.6 c/	1.0	3.5	2.6	56.1	97.5	161.5	407.3
El Salvador	399.4	97.7	257.2	-	9.9	51.2 f/	283.0	147.3	194.2	142.2
Guatemala	66.7	223.7	22.4	72.6	12.5	18.2	26.7	3.7	92.1	47.7
Honduras	259.4 c/	336.6	755.8	28.9	21.1	21.6	109.3	69.0	165.4	143.0
Nicaragua	35.0 e/	52.2	81.1 d/	44.8	8.8	14.3	74.4	19.2	123.8	55.1
Panama	18.8	44.2	0.5	1.0	0.3	0.9	48.3	55.2	107.8	215.7
5. MEXICO	46.4	221.9 g/	8.1	5.9 g/	5.7	4.1 g/	22.4	11.2	23.4	30.6 g/
6. LATIN AMERICAN CARIBBEAN										
Cuba	4.1	30.3	0.0 c/	-	4.9	1.8	7.3	42.9	2.8	139.6
Haiti	15.4	2.0	0.6	1.5	9.1	8.4 f/	47.5	5.0	46.2	3.3
Puerto Rico	-	-	0.1	2.1	0.3	0.1	83.7	46.0	86.2	65.8
Dominican Republic	...	-	116.8 c/	-	21.8	25.8	189.8	232.2	240.8	330.1
B. CARIBBEAN										
Barbados	-	-	0.4	14.6	3.8	1.5	172.4 c/	...	...	...
Guyana	...	0.2 g/	17.0 d/	6.8 g/	21.9	8.8 g/	...	- h/	...	0.4 h/
Jamaica	2.2 c/	- g/	1.3	1.1	3.6	4.3	83.5	-	2232.3	-
Surinam	3.3	5.5	1.1	-	2.3	3.4	...	--	...	-
Trinidad and Tobago	1.2	0.2	32.7	0.9	5.5	1.2	45.5	34.6	912.0	170.6
Windward Islands	39.5	0.3	-	-	18.6	5.9	145.7	76.3	-	244.4
Belize	7.5	0.6	2303.3	1.9	1.7	6.3	35.5	29.7	200.8	88.6
Guadaloupe	...	-	...	-	0.9	0.3	33.0	24.9	...	2.1
French Guiana	3.9 c/	1.5	9.8 c/	1.5	3.9	23.5	54.9	333.8	637.3	1079.4
Martinique	...	-	...	0.3	4.1	2.4	8.5	6.1	...	10.0
Other Caribbean areas	126.8	-	-	-	1.5	0.8	68.0	83.7	53.3	376.5
C. NORTH AMERICA										
1. Canada	0.6	3.5 g/	9.0	5.5	0.2	0.4	11.8	11.9	148.0	210.7
United States	1.4	1.8 g/	6.8	8.9 g/	0.2	0.2	44.8	11.5	294.4	466.3
Other areas (Bermuda)	-	-	17.3	1.7	1.9	-	71.2	65.0	979.7	123.5

a/ Data for 1979 are provisional.
b/ Excludes St. Pierre et Miquelon, Falkland Islands, Netherlands Antilles and Montserrat.
c/ Data for 1971.
d/ Data for 1972.
e/ Data for 1969.
f/ Case data also include typhoid fever.
g/ Data for 1978.
h/ Data for 1977.
i/ Data for 1975.
... No information.
- No cases.

TABLE 4 (CONT'D)

NOTIFIED CASES OF SELECTED COMMUNICABLE DISEASES PER 100,000 INHABITANTS, (3)
BY COUNTRIES, 1970 AND MOST RECENT REPORTING YEAR a/ b/

P A I S	PLAGUE		YELLOW FEVER		INFLUENZA		TICK-BORNE RECURRENT FEVER		TICK-BORNE TYPHUS	
	Number of Cases		Number of Cases		Rate		Rate		Rate	
	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979
A. LATIN AMERICA										
1. ANDEAN AREA										
Bolivia	54	10	2	10	810.0	785.0 d/	...	-	0.5	-
Colombia	-	-	7	51	551.9	664.9	-	-	-	-
Ecuador	31	-	-	14	...	185.8	-	-	0.9	0.3
Peru	128	-	15	97	551.6	23.6	-	-	0.1	0.5
Venezuela	-	-	-	3	723.1	-	-	-	-	-
2. SOUTHERN CONE										
Argentina	-	-	-	-	525.1	815.1 c/	-	-	-	-
Chile	-	-	-	-	176.8	136.5	0.6	-	-	-
Paraguay	-	-	-	-	1518.7	1352.2	-	-	-	-
Uruguay	-	-	-	-	171.5	348.6	-	-	-	-
3. BRAZIL	107	-	2	12	...	...	-	-	-	-
4. CENTRAL AMERICA										
Costa Rica	-	-	-	-	1011.9	905.9	-	-	-	-
El Salvador	-	-	-	-	2316.3	2385.5	-	-	-	-
Guatemala	-	-	-	-	552.3	591.9	-	0.0	0.6	0.1
Honduras	-	-	-	-	586.8	3307.8	-	-	-	-
Nicaragua	-	-	-	-	764.6	687.0	-	-	-	-
Panama	-	-	-	-	1784.2	2210.7	-	-	-	-
5. MEXICO	-	-	-	-	122.7	200.2 a/	-	-	-	-
6. LATIN AMERICAN CARIBBEAN										
Cuba	-	-	-	-	...	2586.1	-	-	-	-
Haiti	-	-	-	-	272.7	152.6	-	-	-	-
Puerto Rico	-	-	-	-	793.5	542.0 a/	-	-	-	-
Dominican Republic	-	-	-	-	1651.2	2973.9 a/	-	-	-	-
B. CARIBBEAN										
Barbados	-	-	-	-	20.2	118.7 a/	-	-	-	-
Guyana	-	-	-	-	1006.7	7.9	-	-	-	-
Jamaica	-	-	-	-	106.7	11.4	-	-	-	-
Surinam	-	-	-	-	...	-	-	-	-	-
Trinidad and Tobago	-	-	-	18	611.5	321.5	-	-	-	-
Windward Islands	-	-	-	-	1437.0	1685.5	-	-	-	-
Belize	-	-	-	-	110.0	1.3	-	-	-	-
Guadaloupe	-	-	-	-	...	-	-	-	-	-
French Guiana	-	-	-	-	...	-	-	-	-	-
Martinique	-	-	-	-	...	-	-	-	-	-
Other Caribbean areas	-	-	-	-	25.6	-	-	-	-	-
C. NORTH AMERICA										
1. Canada	-	-	-	-	...	...	-	-	-	-
United States	13	10	-	-	...	...	-	-	-	-
Other areas (Bermuda)	-	-	-	-	188.2	161.7	-	-	-	-

a/ Data for 1979 are provisional.
b/ Excludes St. Pierre et Miquelon, Falkland Islands, Netherlands Antilles and Montserrat.
c/ Data for 1978.
d/ Data for 1974.
... No information.
- No data.

TABLE 4 (CONT'D)

NOTIFIED CASES OF SELECTED COMMUNICABLE DISEASES PER 100,000 INHABITANTS (4)
BY COUNTRIES, 1970 AND MOST RECENT REPORTING YEAR a/ b/

COUNTRY	MALARIA		TUBERCULOSIS		LEPROSY		HEPATITIS	
	Rate		Rate		Rate		Rate	
	1970	1979	1970	1979	1970	1979	1970	1979
A. LATIN AMERICA								
1. ANDEAN AREA								
Bolivia	139.2	196.4 c/	435.8	154.4 c/	11.3	1.9 c/	36.1	20.8 c/
Colombia	152.8	185.4	104.3	88.4	1.3	1.1 c/	...	37.4
Ecuador	468.2	125.6 c/	57.4	33.5 c/	3.7	-	...	-
Peru	33.5	34.4	317.0	32.1	0.7	1.5 c/	56.1	20.7
Venezuela	156.1	46.0	86.6	52.6 f/	3.6	3.4 f/	18.3	37.0
2. SOUTHERN CONE								
Argentina	0.4	1.2 c/	80.3	45.0 c/	2.7	2.2 c/	30.1	48.1
Chile	...	-	...	78.2 c/	-	0.0 c/	13.4	54.8
Paraguay	59.9	7.1	138.6	89.2	26.9	9.7 c/	17.0	27.9
Uruguay	0.0	-	38.4	66.0	0.6	0.8 c/	30.2	121.1
3. BRAZIL	...	63.1	39.1	25.0	6.0	6.9	-	-
4. CENTRAL AMERICA								
Costa Rica	60.9	14.4	23.1	31.1	3.9	2.0	30.7	85.1
El Salvador	1285.7	1690.3	153.0	56.2	0.1	0.0	123.9	53.9
Guatemala	211.3	1036.7	67.6	387.4	0.6 d/	0.3 c/	6.6	24.4
Honduras	1537.6	1004.8 c/	63.2	37.7	0.8	-	11.1	39.1
Nicaragua	1436.3	742.6	99.3	50.0	...	-	7.5	9.4
Panama	335.1	16.8	95.9	26.5	0.2 c/	-	15.9	35.7
5. MEXICO	127.5	3.0 c/	33.0	15.2 c/	1.7	0.9	7.0	6.0
6. LATIN AMERICAN CARIBBEAN								
Cuba	0.0	3.0	30.8	11.5	3.9	3.6	102.6	222.6
Haiti	80.6	781.7	40.4	28.3	0.1	-	4.3	2.3
Puerto Rico	1.3	0.1	29.0	9.3	0.3	0.5 c/	45.5	16.3
Dominican Republic	3.4	58.8	15.4	41.3	0.5	5.9	35.8	57.0
B. CARIBBEAN								
Barbados	-	0.7 c/	9.3	9.4	0.4 d/	1.3	15.6	4.5
Guyana	2.5	113.0	25.5	22.0 c/	0.3	4.8 c/	...	4.0
Jamaica	0.1	0.3	17.6	6.7	0.6	4.4	9.9	2.9
Surinam	259.3	235.2	30.0	18.1	51.1	-	1.7 d/	0.8
Trinidad and Tobago	0.1	0.7	9.9	4.3	0.8	3.8 c/	2.9	10.9
Windward Islands	...	0.5	18.0	19.6	11.8	-	13.2	23.7
Belize	27.5	905.1	35.8	19.6	-	-	15.8	23.4
Guadaloupe	...	-	55.7	8.1	29.7	19.5	...	1.5
French Guiana	80.4	875.0	109.3 e/	45.6	123.5	42.6	...	16.2
Martinique	-	0.9	26.1	-	7.0 e/	-	...	2.4
Other Caribbean areas	...	3.3	38.4	13.6	0.2	-	12.2	4.6
C. NORTH AMERICA								
1. Canada	0.0	0.7 c/	18.4	10.6	0.0	0.0	57.6	6.8
United States	1.5	0.4	18.2	12.6	0.1	0.1	27.9	13.3
Other areas (Bermuda)	-	-	17.3	5.0	-	...	36.5	30.0

a/ Data for 1979 are provisional.
b/ Excludes St. Pierre et Miquelon, Falkland Islands, Netherlands Antilles and Montserrat.
c/ Data for 1978.
d/ Data for 1971.
e/ Data for 1972.
f/ Data for 1975.
.. No information.
- No cases.

1.4 TRENDS IN FOOD AND NUTRITION

1.4 TRENDS IN FOOD AND NUTRITION

At the beginning of the 1970's the food and nutrition situation in Latin America and the Caribbean was characterized by manifest disequilibrium in the distribution and consumption of staple foods, particularly among the lowest-income groups. A further feature was the persistence of environmental and sociocultural factors that affected the proper utilization of foods and their nutrients at the cellular level, especially the diarrheal and acute infectious diseases that can be significantly reduced by preventive measures and improvement of the environment.

Protein-calorie malnutrition affected around 28 million children under five, i.e., 61.5% of the total number in that age group; of these, approximately 18.9% suffered from moderate or advanced malnutrition, second and third degree, respectively, according to the classification of Gómez et al. (Table 1).

In addition, the prevalence of endemic goiter primarily from iodine deficiency in food, was between 10 and 60% of the total population in ten countries. Despite legislation requiring the iodization of salt for human consumption, the coverage of the programs was low, especially in countries where the disease was most prevalent (Table 2).

Iron-deficiency anemias affected between 29 and 63% of pregnant women and between 14 and 30% of women of all ages. For preschool and school-age children the figures ranged from 6 to 18% in the cities and from 7 to 20% in the rural areas (Table 3).

Vitamin A deficiency ranged from 5 to 45% in the general population, and in some countries many cases of eye disorders and xerophthalmia from this cause were reported (Table 4).

This situation contrasted with the countries' potential capacity to satisfy their own food requirements, since they possessed sufficient land and unused natural resources plus an abundance of labor for converting them into goods and services. Thus, at the beginning of the decade, the average caloric availability for the Region was 2,570 calories per capita/day, i.e. 12% above the 2,320 calories recommended by FAO/WHO. In this connection, mention should be made of the progress achieved between 1961 and the start of the decade (1971-73), when the average daily caloric availability rose from 2,410 to 2,570 (increase of 6.6%) and protein availability from 64 to 66 grams per capita/day (increase of 3.1%).

However, by 1975 around eight countries were still in deficit relative to the average caloric availability, while 16 reported figures above the daily recommended level (Table 5).

Obviously, consumption of calories and protein differs substantially from the average available in a given country (Table 6), the deviations being most evident in the poorer segments of the population, for whom they are estimated at between 10 and 20% below the recommended level. The structure of demand and supply, compared with the real consumption of the minimum diet, reveals the gap between the staple foods available to low-income earners and the requirements (minimum acceptable diet).

It should also be noted that among the affluent segments of Latin America's population, the other side of the nutrition problem is becoming evident in terms of overweight and obesity, and their association with cardiovascular and hypertension-related diseases. It is estimated that about 5% of the population consumes an average of 4,700 calories per capita/day, i.e., twice the recommended figure for a young Latin American adult.

In general terms, while there was no significant change in the nutrition and food situation during the decade owing to the persisting prevalence of the above-mentioned deficiencies, it is clear that the severity of the protein-calorie malnutrition problem has diminished considerably in various countries. In addition, in some countries there has been progress in food production although not at the pace needed to satisfy the demand of their steadily growing populations. In others, food pro- duction declined. Taking the level of food production during the period 1961-65 as the base (100), it can be seen that while in 22 Latin American countries it rose from 107 in 1970 to 112 in 1977, in the Caribbean coun- tries it went down from 94 to 91 over the same period (Table 7).

The persistence of malnutrition in the Region, notwithstanding the apparently adequate general availability of food, indicates that it will not be enough merely to step up agricultural production and that the countries will have to direct their efforts toward intersectoral responses to the problem, including, among others, increasing the real income of the poor, improving integral health protection for them, and raising their social and education levels.

The factors determining the availabiity, consumption and biological utilization of food, and therefore levels of nutrition, are to found in different development sectors. The adequacy of food availability and its consumption is directly influenced by factors such as national food production for domestic consumption, the level and trends of wages for low income groups, unemployment and underemployment, and the cost of a mini- mum adequate diet.

The habits, traditions and beliefs, which help to shape the real consumption of the minimum diet among the poor, are also determinants of the feasibility of any dietary program. In the biological utilization of food, i.e., the absorption of the nutrients at the cellular level,

the following factors are recognized as particularly important: environmental sanitation, including the availability of drinking water and the disposal of excreta and solid wastes; morbidity from infectious and parasitic diseases; immune status of the population; and other components of the well-being profile, such as education, clothing, housing and recreation.

The above considerations make it clear that for the nutritional problems of the countries of the Region to be solved, the multisectoral character of food and nutrition must be fully recognized through a development policy that makes it possible to modify the structure of the supply of consumer goods and services to bring it into line with the basic needs of the low-income population.

In spite of the fact that the health sector receives the direct brunt of malnutrition and undertakes specific actions to overcome it, the characteristics of the problem lead to the adoption of intersectoral approaches for its solution, which should be the basis for a national food and nutrition policy. These policies should be oriented to solve food availability and consumption problems, bearing in mind the factors that determine the food's biological benefits and nutritional habits, which condition the viability of recommended diets.

Significant experience of value for multisectoral planning of national food and nutrition policies was gained by various countries in the 1960's through "integrated applied nutrition programs" whose primary purpose was to contribute to the comprehensive development of rural communities in which health and nutrition problems were most prevalent. Coordinated programs among the sectors most directly concerned with food and nutrition, i.e., health, agriculture, education and community development, laid the basis for an attack on the various causes of the problem and resulted in the identification of possible strategies and measures for alleviation. Notwithstanding the efforts made by some countries with some success at the local level, the effective coverage needed for a real impact at the national level was not achieved. The experience thus gained served to make the highest echelons of economic and social development planning aware of the multiple causes of food and nutritional problems, and hence, of the need for intersectoral approaches to them.

After 1970 and on the basis of the experience gained from the integrated applied nutrition programs, a strong movement began in the Region to promote the formulation and execution of national food and nutrition policies. This strategy has been developed in various countries, in two stages: an initial motivating stage, to create awareness of the food and nutrition problem, its nature, causes and consequences; a second stage of institutionalization of the planning process so as to diagnose the problems, analyze them and propose strategies for their solution.

To this end, some countries have formed, in their national planning offices, technical groups to analyze the nutritional implications of the different economic and social development programs and projects.

Although the efforts to improve the food and nutritional situation of the population, whether at the local level (through integrated applied nutritional programs) or on a national basis (through food and nutrition policies) have not yet produced any significant improvements, today there is certainly greater political awareness of its social and economic implications and, therefore, of the need to develop strategies and programs for its solution.

In view of the multisectoral nature of the food and nutritional problem, it is clear that the strategies adopted will have to focus on a reorientation of the styles and models of economic and social development.

Obviously, food and nutrition are key components of the well-being profile that each Government will decide to aim for. Hence, the high priority assigned to it in the pursuit of the goal of Health for All by the Year 2000 through strategies for the intersectoral articulation of health and extension of the coverage by means of primary health care as well as real community participation.

Since there is no single sectoral solution for solving food and nutritional problems, the strategies should center on having the health sector vigorously promote participation by other development sectors in the formulation and execution of policies, plans and programs of multisectoral nature in which sufficient weight is given to the production, comsumption and proper utilization of food.

TABLE 1

NUTRITIONAL STATUS OF CHILDREN UNDER 5
IN LATIN AMERICA AND THE CARIBBEAN
1978 OR LATEST YEAR AVAILABLE

Country or other political unit	Year	Total children examined	Nutritional Status (2)			
			Normal %	I Degree %	II Degree %	III Degree %
Antigua (4)	1975	535	56.9	35.5	6.8	0.8
Bahamas (4)	1974	321	46.4	14.6	0.6	0.9
Barbados (5)	1969-1978	3,650	60.5	36.1	3.1	0.3
Belize (1)	1973	3,546	40.8	40.0	18.0	1.2
Bolivia (1)	1966-1969	968	60.1	29.0	10.2	0.7
Brazil (1)	1968	569	31.7	48.4	17.2	2.7
Colombia (1)	1966	3,378	33.4	45.6	19.3	1.7
Costa Rica (6)	1966	...	42.6	43.7	12.2	1.5
Chile (1)	1975	881,517	82.2	13.7	3.2	0.9
Dominica (5)	1978	396	49.5	38.6	10.3	1.8
Ecuador (1)	1965-1969	9,000	60.3	28.9	9.6	1.2
El Salvador (6)	1965	...	25.5	48.5	22.9	3.1
Grenada (5)	1978	1,102	60.3	29.1	9.0	1.6
Guatemala (6)	1965	...	18.6	49.0	26.5	5.9
Guyana (5)	1971	964	39.3	43.0	16.0	1.7
Haití (9)	1975	1,542	17.8	28.9	35.6	17.4
Honduras (6)	1966	...	27.5	43.0	27.2	2.3
Cayman Islands (5	1978	537	83.8	14.1	2.0	-
Virgin Islands (U		...	...	...	-5.0-	(10)
Jamaica (5)	1970	490	50.2	39.0	9.4	1.4
Montserrat (5)	1978	1,258	77.7	19.8	2.3	0.2
Nicaragua (6)	1966	...	43.2	41.8	13.2	1.8
Panama (6)	1967	632	39.3	48.8	10.8	1.1
Paraguay	1973	41,750	92.2	4.9	2.2	0.7
Peru	1965-1971	83,165	56.0	32.8	10.9	0.8
Dominican Republic (5)	1969	1,100	25.0	49.0	23.0	4.0
St. Kitts (5)	1978	664	59.3	33.4	6.9	0.3
Nevis	1978	242	64.0	29.8	5.9	0.4
Anguilla	1978	566	72.4	23.1	4.4	-
St. Vincent (5)	1967	2,296	69.5	22.7	6.2	1.6
St. Lucia (5)	1974	372	56.5	32.8	8.9	1.9
Trinidad and Tobago (5)	1978	1,585	50.7	36.8	11.1	1.4
Venezuela	1974	23,271	51.1	35.3	12.2	1.4

(1) Quadrennial Health Projections, 1971-75 and other sources.
(2) Degrees of malnutrition according to Gómez.
(3) Only children aged 5-12.
(4) MCH Profiles for the Commonwealth Caribbean Area. PAHO Document PD 75/8, 1975.
(5) National Nutrition Surveys, CFNI.
(6) National Nutrition Surveys, INCAP/Interdepartamental Committee on Nutrition for National Defense (ICNND), U. S. A.
(7) 0 to 6 years of age.
(8) The difference corresponds to children 10% overweight (Bahamas 37.4%, Montserrat 5.4%).
(9) Bureau of Nutrition (Toureau, S. et al.), 1976.
(10) Includes II and III Degrees only.

Source: Pan American Health Organization, Support Services Division, 1979.

TABLE 2

PREVALENCE OF ENDEMIC GOITER AND SALT IODIZATION PROGRAMS, AMERICAS, SELECTED COUNTRIES [1]

Country or Other Political Unit	Prevalence				Salt Iodization	
	< 10 %	10-19 %	20-29 %	30-39 %	Legislation (Year)	Coverage
Argentina (1968)		12-50			1952 (1963)	100[5]
Barbados (1969)	x				...	...
Belize	x				No	...
Bolivia (1970)		15-66			1968	1
Brazil (1970-1972)		11-59			1953	84
Colombia (1965)[2]	x				1955	85
Costa Rica (1965)[2]					1941	100
Chile (1964-1967)	x				1931	...
Ecuador (1970)		12-28			1968	75
El Salvador (1969)[2]			26-70		1961	40
Guatemala (1965)[2]	x				1954	80-95
Guyana (1971)		x			No	...
Haiti (1959)		x			No	...
Honduras (1966)[2]		x			1960	100
Jamaica (1972)	x				No	...
Mexico (1973)		x			1963	...
Nicaragua (1966)[2]				x	No	...
Panama (1967)2		x			1955	100
Paraguay (1973-1974)[6]		x			1958	100
Peru (1967)			x		1940[4]	25
Dominican Republic (1969)		x			...	...
St. Kitts-Nevis[3]		x			No	...
Anguilla[3]			x		No	...
St. Lucia[3]		x			No	...
Surinam (1973)	x				No	...
Trinidad and Tobago (1973)	x				No	...
Uruguay (1975)			x		1953	...
Venezuela (1966)		x			1966	30[5]

[1] Endemic Goiter and Cretinism: Continuing Threats to World Health. Report of the IV Meeting of the PAHO Technical Group on Endemic Goiter. PAHO Scientific Publication 292, 1974.
[2] National Nutrition Surveys, INCAP/ICNND, 1965-1969.
[3] Quadrennial Health Projections, 1971-1975.
[4] Only in goitrous areas.
[5] Unpublished information.
[6] Ministry of Health and Social Welfare.

Source: Pan American Health Organization, Op. cit.

TABLE 3

PREVALENCE OF NUTRITIONAL ANEMIA IN PRESCHOOL AND SCHOOL-AGE CHILDREN
AMERICAS, SELECTED COUNTRIES

Country or Other Political Unit	Deficient Hemoglobin Level %		Iron Deficiency %		Folate Deficiency %		Vitamin B_{12} Deficiency %	
	Rural	Total	Urban	Rural	Urban	Rural	Urban	Rural
Bolivia[3]	...	3.0	...	...	...	...	...	...
Brazil, N. E.[3]	...	10.0	...	...	...	...	...	...
Colombia[3]	...	6.9	...	...	...	...	...	...
Costa Rica[1]	3.0	...	6.0	17.0	9.0	19.0	...	...
Chile[2]	...	0.7	...	...	...	...	...	...
Ecuador[2]	...	2.7	...	...	...	...	...	...
El Salvador[1]	4.0	...	18.0	13.0	8.5	24.0	3.2	8.0
Guatemala[1]	6.0	...	10.0	17.0	22.0	17.0	...	...
Honduras[1]	6.0	...	18.0	17.0	36.0	13.0	...	1.0
Nicaragua[1]	3.0	...	11.5	7.0	18.0	36.0	1.0	2.0
Panama[1]	8.0	...	12.7	20.0	19.7	18.3	...	...
Peru[2]	...	4.5	...	...	...	...	...	...

[1] [2] National Nutrition Surveys, CFNI.
[3] National Nutrition Surveys, ICNND.
Of the 32.7% (35 children), 40.0% showed iron deficiency and 34% folate deficiency.

Source: Pan American Health Organization. Op. cit.

TABLE 4

PREVALENCE OF VITAMIN A DEFICIENCY IN GENERAL POPULATION AND UNDER 15s, AMERICAS, SELECTED COUNTRIES[1]

Country or Other Political Unit	General Population				Under 15s			
	Number of Persons Studied	Serum Level[2]			Number of Persons Studied	Serum Level		
		< 20 mcg %	10-19 mcg %	< 10 mcg %		< 20 mcg %	10-19 mcg %	< 10 mcg %
Bolivia	413	45.1	37.0	8.1	197	57.0	47.0	10.0
Brazil	342	43.0	29.0	14.0	133	49.0	32.0	17.0
Colombia	156	17.2	16.0	1.2	...	...	...	...
Costa Rica	1,095	14.6	13.0	1.6	482	30.0	26.0	4.0
Chile	143	32.8	30.0	2.8	68	21.6	18.5	3.1
Ecuador	253[3]	1.9	1.9	...	124	3.2	3.2	...
El Salvador	896	21.3	20.0	1.3	337	38.0	36.0	2.0
Guatemala	1,219	11.5	9.8	1.7	...	...	...	...
Guyana[5]	370	9.5	4.1	5.4	...	...	...	...
Honduras	923	21.5	18.0	3.5	820	34.0	29.0	5.0
Nicaragua	983	10.1	9.6	0.5	388	9.3	9.0	0.3
Panama	763	7.1	6.8	0.3	521	10.4	10.0	0.4
Paraguay	886	6.6	6.5	0.1	435	11.7	11.5	0.2
Peru	335[4]	2.7	2.7	...	...	...	...	...
Dominican Republic	516	9.0	7.0	2.0	...	...	...	...
St. Lucia[6]	...	...	...	...	48	37.0	...	2.1
Trinidad and Tobago[6]	...	...	...	...	137	6.6	6.0	2.0
Uruguay	111	12.0	12.0	...	81	23.0	23.0	...
Venezuela	329	4.9	4.9	...	123	8.0	8.0	...
West Indies	530	35.4	27.7	7.7	234	85.4	52.4	33.0

[1] Hypovitaminosis A in the Americas. PAHO Scientific Publication 198, 1970.

[2] Vitamin A deficiency is considered a public health problem when 15% or more of the population have serum values below 20 mcg per 100 ml and/or 5% or more have values below 10 mcg per 100 ml.

[3] ICNND, 1960.

[4] ICNND, 1959 (military personnel)

[5] CFNI, National Nutrition Survey, 1971.

[6] ICNND, 1961.

Source: Pan American Health Organization, Op. cit.

TABLE 5

AVERAGE CALORIE AND PROTEIN AVAILABILITY IN LATIN AMERICA AND THE CARIBBEAN, 1961 AND 1971-73

Country	Kilocalories		Calories % of requirement		Protein (grams)	
	1961	1971-73	1961	1971-73	1961	1971-73
Argentina	3,086	3,222	116	122	102	95
Barbados	—	2,488	—	108	—	75
Bolivia	1,642	2,032	69	85	42	47
Brazil	2,469	2,757	103	115	61	67
Colombia	2,191	2,191	94	94	51	50
Costa Rica	2,217	2,576	99	114	57	63
Cuba	2,500	2,515	108	108	63	63
Chile	2,386	2,781	98	114	65	77
Ecuador	1,888	1,948	82	84	46	43
El Salvador	1,880	1,916	81	83	53	51
Guatemala	1,929	2,155	83	93	54	58
Guyana	2,527	2,539	112	112	53	56
Haiti	1,895	1,793	84	79	41	39
Honduras	1,889	2,102	83	93	52	53
Jamaica	2,027	2,543	91	114	56	67
Mexico	2,515	2,657	108	115	62	61
Nicaragua	2,140	2,467	95	110	67	69
Panama	2,560	2,580	110	111	50	62
Paraguay	2,593	2,510	112	108	77	70
Peru	2,306	2,380	98	101	60	62
Dominican Republic	2,080	2,074	92	92	46	50
Trinidad and Tobago	2,360	2,412	97	99	64	65
Uruguay	3,105	3,077	116	115	110	98
Venezuela	2,263	2,468	92	99	59	62
Region (selected countries)	2,410	2,570	104	112	64	66

*Minimum recommendations formulated by FAO for each country. Average for the Region as a whole is 2.320 calories per capita/day.

Source: ECLA, Latin American Development and the International Economic Situation, Part One, Vol. 1, 1975.

TABLE 6

PER CAPITA/DAY AVAILABILITY [1] AND CONSUMPTION [2] OF CALORIES AND PROTEIN IN THE AMERICAS (SELECTED COUNTRIES), 1974 OR LATEST YEAR AVAILABLE

Country or other political unit	Calories		Protein (g)			
			Animal		TOTAL	
	Availability	Consumption	Availability	Consumption	Availability	Consumption
Argentina	3,036	...	60.0	...	98.4	...
Barbados	2,476[3]	2,151	34.1[3]	35.9	64.6[3]	64.8
Bolivia	1,902	2,345	13.6	21.4	49.1	72.3
Brazil	2,613	2,640	22.4	30.1	64.5	77.0
Colombia	2,160	1,812	22.9	18.7	48.1	46.1
Costa Rica	2,344	1,961	26.9	20.5	61.3	55.7
Cuba	2,688	...	27.9	...	63.1	...
Chile	2,540	2,247	27.2	...	66.4	73.6
Ecuador	1,906	1,780	16.5	16.0	48.0	49.0
El Salvador	1,873	2,161	13.5	20.1	46.0	68.4
Grenada	...	1,610[4]	...	15.8[4]	...	43.8[4]
Guatemala	1,972	2,048	12.2	12.1	49.7	51.0
Guyana	2,399	...	22.1	...	58.8	...
Haití	1,896	...	4.9	...	46.5	...
Honduras	2,420	1,884	15.4	21.3	52.3	60.9
Jamaica	2,585[3]	...	26.2[3]	...	68.2[3]	...
Mexico	2,660	2,077	15.9	...	67.1	...
Nicaragua	2,314	1,986	19.1	...	64.4	...
Panama	2,429	2,091	26.9	...	65.4	62.2
Paraguay	2,776	2,350	37.1	32.8	71.4	65.5
Peru	2,194	2,133	19.6	...	57.1	59.0
Dominican Republic	2,143	1,634	19.6	...	48.5	44.6
St. Lucia	2,244[3]	1,684	24.0[3]	...	52.0[3]	51.4
Surinam	...	2,470	...	16.0	...	54.0
Trinidad and Tobago	2,442	2,948	28.3	36.4	66.8	82.5
Uruguay	3,105	3,259	73.0	...	108.2	116.0
Venezuela	2,524	1,320-	26.9	11.7-41.4[4]	63.8	59.4-

1/ La alimentación en América Latina dentro del contexto económico, regional y mundial. ECLA, preliminary version, August 1974 (1970 data).

2/ National consumption surveys:
- Barbados (CFNI, 1969)
- Bolivia (ICNND, 1963)
- Brazil (Getulio Vargas Foundation, 1960)
- Colombia (INN, 1965)
- Costa Rica, Honduras, and Nicaragua (INCAP/ICNND, 1966)
- Chile (ECEN, 1974)
- Ecuador (INNE, 1971)
- El Salvador (INCAP/ICNND, 1965)
- Guatemala (INCAP/ICNND, 1969)
- Panama (INCAP/ICNND, 1967)
- Paraguay (ICNND, 1965)
- Peru (INN, 1960)
- St. Lucia (CFNI, 1974)
- Surinam, 1952
- Trinidad and Tobago and Dominican Republic, 1970
- Uruguay (ICNND, 1962)

3/ CFNI, 1973

4/ Local consumption surveys:
- Grenada (CFNI, 1972)
- Venezuela (1966-70)

Source: Pan American Health Organization. Op. cit.

TABLE 7

LATIN AMERICA: PER CAPITA FOOD PRODUCTION INDICES BY COUNTRY, 1970-77

Base Index: 1961-65 = 100

Country	Year							
	1970	1971	1972	1973	1974	1975	1976	1977[a]
Argentina	106	103	95	105	109	108	116	114
Bolivia	97	92	92	95	97	104	108	95
Brazil	112	109	110	116	120	119	129	129
Chile	109	110	91	81	97	103	95	110
Colombia	102	103	106	106	111	116	112	111
Ecuador	95	91	91	91	92	89	90	85
Guyana	83	87	74	65	86	85	75	97
Paraguay	104	85	88	84	95	93	101	114
Peru	94	95	86	83	83	79	79	77
Uruguay	108	94	86	97	109	108	120	96
Venezuela	115	115	110	109	114	119	110	120
South America	106	104	100	105	109	109	114	113
Costa Rica	128	119	129	130	123	139	135	126
El Salvador	107	109	97	111	105	115	106	108
Guatemala	116	124	121	127	124	135	138	134
Honduras	100	111	98	98	88	72	83	85
Nicaragua	108	116	104	111	111	115	110	116
Panama	121	124	112	100	105	108	103	107
Central America and Panama	114	117	111	114	110	113	113	112
Mexico	107	109	104	108	102	112	105	106
Haiti	90	93	104	92	87	83	80	79
Jamaica	76	78	77	73	75	69	71	66
Dominican Republic	99	105	105	104	107	95	105	99
Trinidad and Tobago	82	79	81	70	74	63	75	72
Caribbean[b]	94	98	99	96	98	89	95	91
Latin America (22 countries)	107	106	102	105	108	109	111	112

[a] Preliminary data.

[b] Weighted averages for regional and subregional indices, excluding Barbados.

Source: Inter-American Development Bank. Economic and Social Progress in Latin America. 1977 Report. Washington, D.C. 1978.

1.5 DEVELOPMENTS IN THE EXTENSION OF COVERAGE

1.5 DEVELOPMENTS IN THE EXTENSION OF COVERAGE

At the beginning of the 1970's, the predominant feature of the coverage situation in the Latin American and Caribbean countries was the lack of any health care whatever for about 40% of the population. It was recognized that those living in localities of less than 20,000 inhabitants had access to only minimal services.

It was in order to rectify this situation that the Member Governments, in the Ten-Year Health Plan for the Americas, set themselves the goal for 1971-80 of attaining "total coverage of the population by the health service systems in all the countries of the Region". This coverage was to be achieved by expanding the so-called basic or comprehensive minimal health services, organized according to the size of the population groups concerned and their concentration or dispersion. A number of activities were identified as necessary for expanding the production of services such as: increasing the physical capacity and improving the productivity of the systems, defining the sector's institutional components, research on health technologies consistent with the countries' actual socioeconomic circumstances, functional regionalization of the services, etc.

The evolution and growth of the extension of coverage presents certain aspects which are today seen as both central and most significant for the reorientation of strategies.

1.5.1 APPROACHES TO THE EXTENSION OF COVERAGE

In the course of the years there has emerged in the Hemisphere an overall picture of the projects and programs that the countries have developed for the purpose of extending the coverage of their health services and improving the environment. In all cases the larger aim has been, obviously, extension of their services, while the immediate aim could be the construction of new facilities, the improvement of existing facilities, manpower training, or changes in the organization and administration of institutions in the sector.

The development of projects has always been the task of the health ministries, but there has been considerable variation in the impact of decisions made, which, in many instances, have had little effect outside of the ministry's offices.

The intersectoral approach is apparent in certain country projects, but in very few cases has it achieved effective and real expression, so that much ground remains to be covered in this area, if the aim of implementing the primary health care strategy as the main instrument for attaining the goal of Health for All by the Year 2000 is to be fully accomplished.

The concept of coverage has evolved considerably since the beginning of the decade. There is still a wide range of variation, however, and in some countries the concept is viewed as the possibility of stepping up the productivity of the existing services, while in others it is approached by first setting service production targets that are considered adequate to meet a given set of needs. To achieve this goal productivity hypotheses are formulated and expansion programs drawn up to provide such additional human, physical and financial resources as are needed.

1.5.2. PRIORITY GROUPS

At the beginning of the decade the rural poor and mothers and children had highest priority. Since then, new groups have gradually been identified and are becoming significant. This is partly because of changes in the size, growth, structure and geographical distribution of the population and partly because of the technological and organizational development of the services.

In the different countries and to the extent that the coverage of their services has been extended, the urban poor have grown increasingly important, especially those in the big cities, where they are crowded into poverty belts and are now a source of particular concern to the Governments. Thus, the lowest income segments of both the rural and the urban population, i.e., the poorest of the poor, have become the top priority.

Similarly, with growing indutrialization, industrial workers have grown in importance as a group, and in most countries concern for the working environment, accident prevention, and the development of adequate rehabilitation procedures are now accorded equal precedence with the treatment of disease.

In some countries there has been a trend over the decade toward special attention for the family as the milieu in which common problems can be identified and measures can best be taken using the community's own resources, for example: immunizations, diarrheal diseases, malnutrition, mental disorders and family planning.

Some countries are beginning to consider the aged as a priority group, as today's longer life expectancies have increased their numbers. It is increasingly being recognized that this a group with specific needs for which scant provision has as yet been made in the national health services systems.

1.5.3 THE HEALTH SERVICE SYSTEMS

At the beginning of the 1970s, expansion of the installed capacity through investment programs and improvement of the operating capacity of the service systems were considered prerequisites for extending the

coverage of the health services. The aim was to obtain harmonious development of these components that would not saturate the absorption and management capacity of the existing services while creating conditions for a form of administration that would stimulate the increased production of services that were both more accessible and relevant. These two components call for some comments:

- In many countries investment programs to expand the installed capacity constituted the strategic basis for extension of coverage programs. This approach evolved progressively to the point where investment in additional capacity was considered complementary to the adjustments needed to raise the productivity of the systems. In many instances, the investments were made using very "soft" external loans. The amortization of those loans, plus the cost of putting the new services into operation and the increased total production, will together impose a burden in future years that compels careful analysis by those in charge of their organization and administration.

- In the management of investment projects there is in the countries a growing concern to design service networks in which the types, locations, and sizes of the establishments are clearly defined. There is also a distinct tendency to consider additional investments as complementary to possible increments in the productivity of existing facilities.

Halfway through the decade a decreasing trend in the number of hospital beds was discerned, whereas the Ten-Year Plan had specifically stated that the purpose was to increase the number of general hospital beds in Latin America and the Caribbean by 106,000. There has been instead a significant increase in the number of such basic units as health stations and centers. Whether the latter development has compensated for the former, and whether the population has gained thereby in terms of health care, is for each country to carefully consider in charting new strategies.

- The Ten-Year Plan attached considerable importance to "increasing the productivity of the systems by implementing technical-administrative and legal reforms that will strengthen the organizational and functional structure" to which it added the recommendation to "expand capacity to provide the care being sought through better utilization of available resources." Throughout the decade a variety of efforts were made by the countries to arrive at forms of organization that would make the services more accessible to the population.

The decade has witnessed distinct changes in the planning and administration of health services. The emphasis has shifted from the development of instruments to a broad view of the system, its subsystems and components and to the technological processes employed. Significant advances have been made in adjusting methods and procedures to the particular circumstances of each country or region, and especially to the

new requirements generated by orientation of the systems, in order to overcome rigidities that had already developed in some countries.

The quest for the necessary consistency between diagnosed problems, formulated policies, plans of action, and the actual production of services was another development of immense importance that progressed with differing speed and intensity in the various countries, but which at the end of the decade is seen to have laid a solid base from which the health systems can advance toward the goal of Health for All by the Year 2000.

Regarding sectoral organization, efforts have been made to redefine the sector, achieve interinstitutional coordination, improve the legal instruments and organize the most important factors such as financial investments, supplies, personnel and maintenance. These efforts have had no real impact, however, as there is still, on the whole, a glaring lack of coordination among the institutions that make up the sector, particularly between the social security agencies and the health ministries, both at the decision-making and regulatory levels and at the level of service delivery units. As the decade wore on, the health ministries gradually assumed a larger role as coordinating agencies for the sector. In some countries new forms of organization were instituted in which the social security systems acquired broadened areas of responsibility.

However, in many cases this organizational and functional restructuring of the sector went no further than formal coordination. The needed analyses of the sources and magnitude of the financing of the institutions that make up the sector were not made, nor were any studies done of the structure and cost of the services or their beneficiaries. Both analyses are needed to arrive at decisions that will enable the health sector to extend its coverage and contribute to the redistribution of income and to a reduction of inequalities.

Throughout the decade progress continued to be made in the definition of levels of care and referral systems, functional regionalizaion of the services and administrative decentralization as factors of technological organization designed to maximize the efficiency of the system and reduce differences in the volume and structure of the services available to different social groups.

The value of the community system was recognized. However, there is considerable variation among the countries in the functions of this informal system, its management and organization, and its administrative and technical relations with the institutional systems. Because of the importance of these factors for the extension of coverage, it is vital that the countries carefully analyze the available experience as an aid to the definition of their future strategies.

In general all the developing countries in the Region made efforts to organize and develop information systems. Such systems were recognized as important to the consistency of decision-making, programming, execution, control and evaluation processes. Accomplishments, however, did not live up to expectations.

Moreover, information on financing, expenditures and costs for the sector was not developed. As this information is essential for designing strategies, making decisions and controlling the processes, this omission will pose a serious problem for the programming and development of the sector in the decades ahead, and will have to be rectified.

There is a growing collective awareness of the grave danger of using technologies uncritically or simply assuming them to be right because they have worked well in developed countries. As a result, a movement has started that views the analysis of technologies currently in use and the study and application of possible new ones as essential to the growth of, and change in, the health service system, so as to achieve an extension of coverage that will realize the goal of Health for All by the Year 2000. Extensive research and experimentation will be needed in this field.

The past ten years have been for the health service systems of the countries of the Region a time of rapid change, triggered in most cases by the launching of extension of coverage programs. It will be necessary to ensure that the political will to continue along this path remains firm in the future and is not allowed to weaken if immediate results are not manifest; at the same time the unswering aim must be to constantly provide more services for more people, thus lessening the disparities of well-being in general and health care in particular between social groups in the countries of Latin America and the Caribbean.

UNITS OF MINIMUM COMPLEXITY (FOR ELEMENTARY CARE) AND SHORT-STAY BEDS. COUNTRIES OF THE AMERICAS, 1971-1978*

	ELEMENTARY CARE UNITS. Number of units operating in each year and percentage increase 1971-1980					GENERAL CARE BEDS Number of beds available each year and percentage increase 1971-1980				
	1971	1974	1978	1980 Estimate	Percentage Increase 1971-1980	1971	1974	1978	1980 Estimate	Percentage Increase 1971-1980
Argentina						91370				
Bahamas				114		512		561[d]	561	10
Barbados	10	10	10	10	0	545	451	541	541	- 1
Bolivia										
Brazil							232266[h]			
Canada										
Chile		668	866	971	45[f]	33763	33763	32887	32927	- 3
Colombia	1530[a]	1563[c]	2772[b]		81[f]	31582	33065	31068		- 2
Costa Rica	49[a]	310	1018	...	328[g]	4970[a]	4652	4322[b]	4671	0
Cuba	932	971	1083		16[f]	24460	34336	36364		49[f]
Ecuador	225[a]		993[d]	1343	500					
El Salvador	95	102	145	172	81	1964	2034	1936		- 1[f]
U. S. A.										
Guatemala	150	227	472	625	317	7761	7834	8645	8848	14
Guyana	35[a]		130[b]					2277[b]		
Haiti										
Honduras	148	236	383	517	249	3326	3648	3414	3794	14
Jamaica	49[a]					3215	3505	3661	3661	14
Mexico	2031[a]						76413			
Panama	190	224	323		70[f]	4661	5357	6335		36[f]
Paraguay	127	133	147[b]	313	146	3314	3356	3740	4632	40
Peru	1568	1686	1786	1836	17	28405	28505	28668	29268	3
Dominican Rep.	208	262	377		81	8393		8563		2[f]
Suriname	-	140	168	170	21[e]	+889	907	1139	1145	29
Uruguay	834					9850			10131	3
Venezuela			444			9888	11722	16709		69[f]

a/ Source: First evaluation, done in 1974, of the Ten-Year Health Plan for the Americas, 1971-1980. b/ 1977. c/ 1973. d/ 1979. e/ 1974-1980. f/ 1971-1978. g/ 1974-1978. h/ 1975.

*Information provided by the countries for the Evaluation of the Ten-Year Plan.

1.6 DEVELOPMENTS IN ENVIRONMENTAL HEALTH

1.6 DEVELOPMENTS IN ENVIRONMENTAL HEALTH

1.6.1 Basic sanitation (water supply and sewerage)

In 1961, the Governments of the Hemisphere stated in the Charter of Punta del Este the goal of providing water and sewerage services for 70% of the urban population and 50% of the rural population. In 1972 the Ten-Year Health Plan for the Americas set as new goals for the 1970's the provision of water through house connections to 80% of the urban population and sewerage service to 70% of that population, plus water supply and sewerage service or some other sanitary means of excreta disposal for 50% of the rural population.

By the end of 1978, 198 million of the inhabitants of Latin America and the Caribbean had access to water through house connections or public standpipes. Of the 201 million inhabitants in urban areas, 140 million (71%) had house connections. Whereas only 43 million (34%) of the rural population had access to drinking water. At the same time, 84 million (43%) of the urban inhabitants had access to sewerage services, but only 3 million (2.4%) of rural dwellers had the same facilities.

In the Region of the Americas the progress made in the past twenty years in the provision of water supply and sewerage services has resulted in progressive and important innovations in sectoral organization, the administration of services, manpower training and financing policies.

In 1976, the United Nations Conference on Human Settlements (Habitat) recommended that the provision of drinking water and sanitation services to the largest possible number of people by 1990 be considered. In March 1977, the United Nations Water Conference, at Mar del Plata, Argentina, adopted that recommendation and proclaimed the International Drinking Water and Sanitation Decade (1981-1990) with the goal of providing drinking water and sanitation services to everyone within that period giving special emphasis to the poor, dwellers in rural and urban-fringe areas, and persons living in areas where water is in short supply. In 1978, the International Conference on Primary Health Care adopted the Declaration of Alma-Ata, in which primary health care is referred to as the key to attaining the target of Health for All by the Year 2000. The Declaration endorses approaches taken by the Decade for Water and states that a supply of safe water and sanitation are among the main components of primary health care.

If the goals of the Water Decade are met by the end of 1990, the 147 million persons living in rural Latin America and the Caribbean and the 338 million in the urban areas will have water and sewerage or other disposal services available. If this comes about, the task for the 1990's will be to extend these services to provide coverage for the increase in population and to manage and maintain the existing systems and the new ones that will be established.

At the end of the 1950s, the majority of Latin America's water supply and sewerage services were the direct responsibility of the municipal governments. There was, in general, a lack of national agencies or programs with planning, financing and support functions on behalf of state, provincial or local authorities for the provisions of these services. Starting in 1942, the national Special Public Health Services (Servicios Cooperativos) programs had paid special attention to rural sanitation and to the formation of a core of professional sanitary engineers around whom the efforts to improve water supply could be centered.

In 1961 a trend emerged in the countries toward the creation of national or centralized water and sewerage agencies, with administrative and financial autonomy. This trend has continued and there are today agencies of this type in nearly all the countries of the Americas.

Although the importance of community participation in rural water and sewerage programs has been recognized in the Region for a number of years, serious shortcomings have been apparent in the application of these efforts. Community participation has ranged from passive observation to active participation, but only in a few cases has its full potential been harnessed. In general, communities have contributed labor and local materials and resources toward the cost of constructing the services. It must be noted that they have, through local committees, assumed responsibility for administering the systems and financing their basic operating costs. Nevertheless, there are deficiencies in their operation and maintenance, partly for lack of technical guidance and support in the supply of parts and management advisory services. If appropriate health education had been provided, better use would have been made of the water and the desirability of good quality drinking water and sanitary waste disposal would have become more firmly established. Community participation in urban areas has consisted mainly in the payment of water rates. Nevertheless, there have been some significant instances of community participation in the peripheral areas of the cities which have organized themselves and made major contributions to the provision of services.

From 1963 onward PAHO took a multidisciplinary and multifaceted approach in its technical cooperation with water agencies aimed at improving their infrastructure, and administrative procedures. This has included planning, organization, budgeting, billing and collection, accounting, procurement, personnel management, operation and maintenance, public relations and other administrative and technical components. All of these are essential for modernizing the sector and preparing its agencies for their new function: that of acting in their capacity as autonomous authorities in the negotiation of loans, charging for services, and operating in general as independent enterprises divested from their links to the national public administration.

With the new orientation of the sector and the creation in the 1960's of international lending institutions such as the Inter-American

Development Bank and later the investments made in the Region by the World Bank, the need for carefully prepared feasibility and engineering studies became more pressing. Both banks drew up guidelines for project preparation, and PAHO cooperated with water authorities in the formulation and preparation of projects and in the training of national personnel.

The goals of the Decade require that the preparation of projects suitable for financing be speeded up. This will require an increase in manpower and funding for this activity.

In the past twenty years efforts were concentrated more on the construction and expansion of water and sewerage services and less on their operation and maintenance. Intermittent service, water losses estimated at between 40% and 60%, and dubious water quality are some of the consequences of this situation. In rural areas of Latin America it is noted that 30% or more of the water systems for small communities two or three years after their construction are operating at well below their potential owing to lack of proper operating procedures and maintenance.

The technologies currently in use are, in general, applicable to urban projects and appear appropriate in such settings. However, there is a tendency toward more sophisticated solutions. At times rapid sand filters are constructed when slow filtration would be technologically preferable. Highly automated compact treatment plans have been used when traditional designs would have allowed easier operation. Sewerage treatment plants have been installed in localities where stabilization ponds could have been used.

The technologies employed in rural services have often not been the most appropriate. As the service deficit in such areas is high, it is desirable that technologies be selected which are compatible with the social, cultural and economic conditions, especially in villages and towns where public systems are better solutions than individual ones.

Individual systems will have to be used in dispersed populations. Sociocultural factors are very important here since the system will be used and operated by the user himself. The technologies chosen will have to be based essentially on self-help in conjunction with a vigorous health education campaign.

To ascertain the equipment and chemical requirements the demand will have to be quantified to promote the development of industries, taking appropriate technology and the availability of raw materials into consideration. When appropriate, these complementary equipment and material programs should be formulated at the subregional level, as in the case of the Andean Pact countries.

The concept of payment for water and sanitation services in urban areas through water tariff rates is well established in the Region. In

the rural zones, the income from water services is less uniform and, in general, insufficient to cover expenses. Nevertheless, the communities can make important contributions in materials, labor, and in the administration and operation of the services.

While the costs vary from country to country, and even within the same country depending on the solution adopted, it is estimated that the total investment needed in the Latin American and the Caribbean Region in 1981-1990 will be around US$50 billion, of which US$20 billion will be for water supply and US$30 billion for sewerage and excreta disposal facilities (at 1978 prices). The yearly amount required over the period is estimated at about US$5 billion.

1.6.2 Solid wastes

Ever since the 1950's, rapid urbanization, plus the higher per-capita generation of solid wastes--currently 0.6 kg/per capita/day--have been the main causes for the deterioration in solid waste managment in the Region. In some urban areas collection and disposal problems have mounted to the point of becoming public health hazards and may work against economic development. In rural areas, solid waste production is approximately 0.05 kg/per capita/day.

The advances made in solid waste management services have only gone part way toward solving the problem and meeting the recommendations of health authorities of the countries of the Region.

In Latin America and the Caribbean solid waste collection and disposal services are usually operated directly by the municipal authorities, a situation that is not much different from how water supply and sewerage were managed 30 or 40 years ago. In the 1970's the Governments have demonstrated considerable interest in improving solid waste management services, and responsibility for promoting the change fell to the envirnomental sanitation units of the health ministries.

On a regional level, it is estimated that the coverage of solid waste management services has not expanded over the past 20 years, and in some cases may even have deteriorated.

Except in the few special cases, over the past two decades, only a few cities of over 20,000 inhabitants have drawn up solid waste management plans (including satisfactory planning, administration, marketing, operating and financing plans). Another major shortcoming is the maintenance of the mechanical equipment.

Collection technology has largely paralleled that used in the industrialized countries. Final disposal methodology has also remained static, however, because of the high investment cost. Both of these aspects need careful study so that solutions compatible with the countries' present economic and social situations can be devised.

The installed capacity of the solid waste systems in Latin America and the Caribbean is worth over US$400 million. The main component is the equipment, which in many instances was procured with central or municipal government funds. Another common practice is to resort to sources of medium and short-term financing, at high interest rates. There is a need for mechanisms for gradually developing the services while at the same time safeguarding the investments.

1.6.3 Control of pollution and other environmental health hazards

Environmental pollution in Latin America and the Caribbean was relatively unnoticed at the beginning of the 1960's, except for a few localized problems. However, with rapid industrial development, population growth, urbanization, and the mechanization of agriculture, the concern of the health authorities was aroused and they took certain steps.

In 1971, 59 million urban dwellers had access to sewerage services; however, the construction of sewage treatment plants had progressed slowly and only 5% of the sewage was undergoing such treatment. The sewage produced by around 56 million people was being discharged into watercourses without treatment. A further 97 million urban dwellers who were without sewerage services contributed indirectly to the water pollution problem.

During the 1960's and 1970's the growing concentration of population in urban areas intensified environmental pollution. In addition, there were substantial expansions of many industries using large volumes of water, which led in turn to further increases in air and water pollution. Examples of such industries are fish meal, chemicals and wood pulp, and steel and petrochemical complexes. Other industries such as frozen foods, milk and dairy products, plastics, rubber, textiles, meatpacking, canning and distilling also expanded. At the beginning of the 1970's, while 20% of the potential resources were being used, it was obvious that pollution in Latin America and the Caribbean was spreading rapidly and had reached levels that were giving the health authorities cause for serious concern. Most of the 17 cities with over 1 million inhabitans had pollution problems. At this time substantive measures to control pollution were taken in several countries, particularly the most industrialized ones such as Brazil, Mexico and Venezuela. There are today large areas, especially in the major metropolitan areas of Argentina, Brazil, Chile, Peru, Mexico, Venezuela and other countries, which are faced with complex problems caused by the wastes from production, transportation and industrial technology, which in their final form become pollutants of the air, water, food and soil. In addition, they are suffering the effects of the thousand of chemical substances used in everyday life, including pesticides and the new chemical products that come on the market every year. Most of these substances are now produced in the countries themselves while others are imported. By the year 2000 it is estimated that there will be 47 urban areas with more than one million inhabitants.

The health authorities of the Member Countries have expressed their concern since the early 1960's and have in various cases made studies to determine pollution levels and trends. A number of health ministries have set up environmental pollution control units. However, the lack of trained personnel, facilities, legislation, experience and other resources has prevented rapid progress.

In the 1970's most of the Governments of the Region were already concerned that the problems connected with industrial development, including chemical pollution of the living and working environment, were mounting rapidly as the industrialization of the coutries proceeded. For this reason the Ministers of Health recommended in the Ten-Year Health Plan for the Americas (1971-1980) that policies be established and programs formulated and carried out for the control of water pollution, air pollution in cities with over 500,000 inhabitants as well as soil pollution programs.

The majority of the Latin American and Caribbean countries now have laws to protect their natural resources, and there are also some laws and regulations on the environment aimed at preventing and reducing diseases caused by environmental pollution. The latter legislation is usually administered by the health authorities. Other functions are generally dispersed among different governmental agencies. Most of the countries are aware of the need to update or design legalization procedures in this sphere and are interested in doing so.

Besides the need to introduce new provisions or refine those in force, appropriate implementing machinery is needed if they are to be effective. Trained personnel and suitable financial and institutional resources are usually lacking and new methods of financing will have to be devised, tried out and applied.

Although the Governments recognize the importance of environmental and health impact studies, especially for large-scale development projects, they have limited and in many cases no national capabilities or experience in this area. The institutionalization of these activities is being considered as a response to the loan conditions for projects financed by international or bilateral agencies.

The periodic reports of the Pan American Air Sampling Network for most of the 40 participating cities indicate an upward trend in the levels of settled dust, suspended dust and sulfur dioxide, for some of which excessively high concentrations are recorded.

No country has established comprehensive national environmental monitoring networks. Surveillance activities for specific purposes have been instituted, however. Automated air monitoring systems are now operating in Mexico City and Sao Paulo. The complexity of the equipment, sampling procedures, analyses and report preparation call for highly trained specialists backed by laboratory and maintenance services. At the present time these skills can only be acquired at a few technological

and scientific centers in the Region. Institutions of this kind need to be established, expanded, or strengthened in most of the countries.

At the moment only a few countries have institutions capable of undertaking environmental research projects. Research laboratories, where they exist, mostly have a bare minimum of equipment and personnel and therefore only perform routine activities and provide services in a few critical situations.

Exchanges of information on envirnomental pollution and the attendant health hazards are extremely limited owing to a lack of journals and other publications in Spanish and Portuguese. Only recently has a start been made with setting up information systems and organizing national information centers.

1.6.4 Occupational Health

In 1970 Latin America's labor force numbered 94 million. Approximately 44% was employed in agriculture, about 20% in industry and 36% in trade and services.

The present total is over 100 million. Conservative estimates indicate that there may be as many as some 10 million work-related accidents a year, with 50,000 fatalities. The incidence of occupational diseases is also believed to be high and on the increase.

Various studies have shown that industrial disabilities from work-related accidents and diseases can cost an average of approximately 10% of GNP in developing countries. This figure includes the direct and indirect costs, lost work time, compensation, additional leave, early retirement, and other factors that increase the cost to the economy.

Examples of the problem are pesticide poisoning in agricultural workers and the large number of injuries due to improperly trained operators of modern tools and machinery.

The III Special Meeting of Ministers of Health of the Americas, held in Santiago, Chile, in 1972, included in the Ten-Year Health Plan for the Americas the goals of protecting 70% of the working population in countries with occupational health programs already in operation and 50% in the countries that had still not adequately developed such programs.

While these targets for the 1970's were not met, significant progress was made in many countries, especially in the latter years. The Andean Pact member countries are preparing an Andean Occupational Health Program. The Caribbean countries, too, are working to define the situation and organize programs. The social security institutes of many countries have expanded their activities, either to better protect the labor force or to expand their coverage of it. In no fewer than six countries occupational health training institutes have been or are being

established. Studies have also been carried out to define the problems better. Nevertheless, much remains to be done in order to reach the targets originally set.

In 1970 there were 14 national occupational health programs in varying stages of execution in the countries of Latin America and the Caribbean. Four of them are considered to have reached a satisfactory level of operation. Since then a large number of measures have been initiated or intensified, some of them with innovative procedures.

Responsibility in the sphere of occupational health is divided among the ministries of health and labor and the social security institutes. The programs carried out are usually limited. Coordinated action would contribute greatly toward reduction of the present rates of occupational illnesses and injuries.

1.6.5 Food protection

Food control services in the Latin American and Caribbean countries have not kept pace with advances in the food industry and technologies. The legislation has not been updated and the control services have not been modernized.

The basic fact is that the responsibilities of the health sector in the area of food protection have still not been clearly defined. In recent years the ministries have begun to take an interest in food quality control, mainly because the countries are now having to import increasing quatities of food. The cost of these imports, coupled with continuing losses of home-produced foodstuffs owing to spoilage, have added a heavy burden to the balance-of-payments.

Human mortality and morbidity from gastroenteritis and diarrheal diseases could be substantially reduced through preventive efforts by an appropriate food quality control service. The economic costs occasioned by hospitalization for such diseases could be lessened and the loss of large quantities of food prevented.

The segment of the population most in need of food fit for consumption is increasing rapidly, while food production and purchasing power have declined.

In most of the countries the institutional infrastucture is largely ineffective. Its activities are minimal, sampling is sporadic, laboratory data are questionable, and there is little basic information on the work and findings of the food control services.

Intersectoral cooperation between health and agriculture, the two ministries responsible for food matters, is minimal. Control systems are implemented either limitedly or not at all.

Some progress has been made toward institutional development in Brazil, Chile, Colombia, Mexico and Venezuela, mainly at the central government level. The institutional structure at the state or department level needs substantial infusions of manpower and funds.

The feasibility of using the available technologies in all the countries will be limited unless the administration, inspection and sampling, analysis and public education services are strengthened at the same time. Staff must be trained and institutions established as essential and complementary steps taken in this direction.

The lack of a food protection policy in the health sector is paralleled by the lack of a financial policy or long-term planning for improving the existing food control services or setting up new ones.

PERCENTAGES OF URBAN AND RURAL POPULATIONS OF EACH COUNTRY IN THE REGION OF THE AMERICAS PROVIDED WITH WATER SUPPLY

1971-1980*

	Urban population with house connections (%)				Rural population supplied with drinking water (%)			
	Observed situation			Nat. goal	Observed situation			Nat. goal
	1971	1974	1978	1980	1971	1974	1978	1980
Argentina	64	65	64	80	12	13	14	80
Bahamas			95[a]	95				
Barbados		98	97	100		36	65	70
Bolivia								
Brazil	61	65	67	80	40	42	45	
Canada								
Chile	62	78	88	100	15	29	41	45
Colombia	76	...	75	80	20	...	31	70
Costa Rica	95	95	98	98	55	58	61	66
Cuba	85	90	93	95				
Ecuador	60	65	70[a]	80	4	7	15	24
El Salvador	48	49	61	63	12	20	30	31
U. S. A.	100[b]			100[b]	92[b]			
Guatemala	40	41	41	50	13	14	14	33
Guyana	85[b]		92[a]	95[b]	70[b]		60[a]	90[b]
Haiti			9[c]				1[c]	
Honduras	61[b]	61	52	65	11[b]	7	13	34
Jamaica	93[b]				48[b]			87[b]
Mexico	64[b]			72[b]	19[b]			30[b]
Panama	90	93	95	96	49	53	64 1	60
Paraguay	18[b]	21	31	73[b]	3[b]	6	6	37[b]
Peru	65	67	69	68	10	11	12	16
Dominican Rep.	a	38[d]	56[d]	80	7[d]	10[d]	19[d]	10
Suriname	65	74	80	80	31	35	66	80
Uruguay								
Venezuela	64[b]			80[b]	44	49	59	64

a/ 1979. b/ Data obtained from evaluation in 1974. c/ May 1980.
d/ There is a high percentage of population with individual service.

* Information obtained from the countries for the Evaluation of the Ten-Year Health Plan for the Americas.

PERCENTAGE OF URBAN AND RURAL POPULATIONS OF EACH COUNTRY IN THE REGION OF THE AMERICAS WITH SEWERAGE AND EXCRETA DISPOSAL SERVICE

1971-1980*

	Urban population with sewer service (%)				Rural population with excreta disposal service (%)			
	Observed situation			Nat. goal	Observed situation			Nat. goal
	1971	1974	1978	1980	1971	1974	1978	1980
Argentina	33	34	34	70	79	70	70	50
Bahamas			15[a,b]					
Barbados								
Bolivia								
Brazil	33	34	36	50	60	63	65	
Canada								
Chile	36	47	61	70	12	9	8	
Colombia	64	...	65[c]	70	9	...	9[c]	55
Costa Rica	35	44	43	50	40	86	86	100[d]
Cuba	50	53	55	57	[f]	[f]	[f]	[f]
Ecuador	45	52	69[a]	70	3	7	11[a]	18
El Salvador	38	38	48	51	12	15	26	30
U. S. A.	98				82[d]			
Guatemala	40	40	40	50	13	14	17	33
Guyana	13[d]		42[a]	23[d]	0[d]			
Haiti							0.1[g]	
Honduras	51[d]	43	43	43	9[d]	11	18	42
Jamaica	28[d]				81[d]			
Mexico	36[d]			40[d]	9[d]			60[d]
Panama	93	97	98	75	69	71	80	75
Paraguay	15[d]	11	25[a]		23	55	60[a]	57[d]
Peru	59	60	57	59	0	1	1	2
Dominican Rep.	17	41	59	60	15			30[d]
Suriname	71	63	65	35	4			8
Uruguay			48[e]				78[e]	
Venezuela	39[d]			75[d]	45	51	58	59

a/ 1979. b/ Population with sewer connections. The excreta disposal service is available to the entire urban population and there is also a number of private treatment plants. c/ 1976. d/ Datum obtained from the evaluation of the Ten-Year Plan in 1974. e/ 1975. f/ The rural population (200,000 inhabitants) is scattered, not clustered in settlements, and has individual water supply and excreta disposal systems. g/ 1980 (May).

*Information obtained from the countries for the Evaluation of the Ten-Year Health Plan for the Americas.

1.7 DEVELOPMENT OF SCIENCE AND TECHNOLOGY

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Science and technology, which historically had developed separately, became closely related to one another during nineteenth century. For some authors, the difference between science and technology is not between the abstract function of knowing and the action of doing, but rather in the different values that different groups place on doing and knowing. Thus, groups of doctors, engineers, agronomists, etc., who are technologists, become scientists and produce scientific knowledge. In any event, today's interaction between science and technology makes it impossible to consider the one without the other, and as a result any attempt to develop technology without a parallel effort in the sciences is unrealistic.

Anyone who looks at the question must admit that it is difficult to talk of Latin America as a homogeneous whole. While the countries are linked by common ties of language and similar cultures, they are at very different stages of evolution.

There is no up-to-date information on the development of science and technology in the health field in Latin America and the Caribbean, and very little on their impact on health services.

It must be admitted that in Latin America biomedical research has progressed more actively than research in any other field. Almost every aspect of biomedical research is represented by at least one individual, small group or laboratory or institute that is recognized as outstanding throughout the world. It is true that often, these small islets of excellence are not representative of the countries' level of scientific development, but rather, are the effort of a few eminent men of world stature whose work has often, although not always, attracted support from external sources. This is evident from the great institutes that have often been founded around a well-known name. Some of these institutes have worthily survived the death of their founders, but others are languishing as veritable mausoleums.

One of the characteristics of biomedical research in Latin America, particularly of that conducted in universities, is a tendency toward basic research at the expense of appplied research. The recommendations of all the working groups that have examined the situation in Latin America agree that more attention should be given to applied research in public health, and this should be a responsibility of those in charge of science in the country. Fortunately, in recent years there has been a growing trend in scientific institutions and in the directing agencies to use science and scientific research as a working tool, which has meant that support has more frequently gone to science projects from which immediately useful

results are expected. It may thus be anticipated that scientific research might have a more direct impact on improving health services in the near future.

In Latin America medicine has been regarded as a prestigious profession, and this was long reflected in the level of activity in scientific research which was much higher in medical schools than in science faculties; the former having large numbers of researchers in biology and medicine. The creation of science and technology councils, encouraged in the Americas by international organizations like UNESCO and the OAS, has bolstered research in other fields. Thus, while in absolute terms there has been a build-up of health sciences, they have yielded priority to other sciences more directly connected with economic and social development.

From the information available, it would seem that health research in Latin America was on the increase during the late sixties. This phenomenon however, was not confined to the health field, as during the same period there was a similar increase in all research. The quantitative increase in research that began during the sixties and its continued growth since is apparently the result of state intervention in the planning of scientific activity, which in Latin America began in the fifties. The institutionalizing of science policy is the result of changes in the structure of Latin America society, such as the consolidation of industrial production and a redefinition of the role of the state. In present-day society, science is not only an important factor in the development of the forces of production, but is itself determined by the social structure. This determination must not be viewed as mechanically direct, however, because there are various interactions that mediate between the economic structure and science, which is itself relatively autonomous.

In the health field, research is geared to the dominant forms of medical practice, which are in turn the outcome of changes in society as a whole. Thus, existing data show a quantitative predominance of clinical research closely linked to hospital based medical care, particularly in the testing of new therapies. Qualitatively, this type of research has been criticized for both its methodology and its findings. However, this kind of study draws on large numbers of people who are interested in research, even if they have had little or no formal research training.

Second in importance in quantitative terms is basic research which, at the beginning of the sixties, received considerable financial support from the National Institutes of Health in the United States. Research in health service delivery systems ranks last.

In the second half of the seventies health research witnessed a number of developments that were linked to the changes then going on in Latin American societies. First, there was a growing interest in formulating science policies specifically for the health field, and the establishment of research planning units in health ministries. This interest stemmed in part from the relative failure of overall research policies in the health field and from the centralization of coordination and financing.

The revenue crises that accompanied the economic crisis of the seventies imposed on the Latin American Governments a general retrenchment from which the health sector did not escape. The relative and absolute reduction of government spending on health, together with the need to expand health services to the rural population, as stated above, stimulated a search for cheaper services and greater effectiveness. This led to the encouragement of health services research and particularly of operations research to experiment with low cost forms of care with greater coverage.

Another factor is a certain rekindling of research in tropical diseases, on which major work had been done in Latin America in the first thirty years of the century. The Special Program for Research in Tropical Diseases has given considerable momentum to research, particularly to the study of Chagas' disease in Argentina, Bolivia, Brazil, and Peru.

Some fields of the biomedical or health sciences have been particularly fruitful for Latin American research: the stimulus that the work of Houssay and Leloir gave to work on carbohydrate metabolism and to neurophysiological research in Brazil, Chile, Mexico and Uruguay; the research of high-altitute physiology in Peru. Brazil, has given considerable momentum to genetics, and groups of well-trained biochemists have sprung up in almost all the more developed countries of the Region who have done graduate work abroad and are doing significant research. Nutrition is another important field in which the countries of Latin America are active, in addition to the work being done in the Regional Centers of PAHO. Brazil, Chile, Colombia, Costa Rica, and Mexico all have fine institutes of nutrition. With the increase of population problems, research groups have also been formed to work on the physiology of reproduction, some under the stimulus of the Global Program of Research in Human Reproduction, as in Argentina, Chile, Brazil, Cuba, and Mexico. Latin American researchers have made fine contributions in such fields as microbiology and parasitology, fields in which professional associations have since 1956 held a series of meetings that have greatly stimulated scientific activities. The great institutes that flourished during the first

decade of this century have taken on new life, and new professorships, working groups and institutes have been established in practically all the countries of the Region.

There are several factors that make for the restricted extent of health research in the countries of Latin America and the limited use made of it in health services planning. The causes were reported in the three subregional meetings on national health research policies and the national meetings that preceded them. The common problems are a lack of clearly defined health research policies and the fragmentation of, and lack of articulation between, the institutions doing this research because of the absence of both intrasectoral and intersectoral coordination mechanisms.

It was pointed out in all those meetings that not enough research was being done, and that it had not been perceived as a contributor to the welfare of the population. Research subjects were not selected in accordance with established priorities, but were frequently left to the researcher. This was more obvious in research undertaken by institutes of higher learning, which had the most resources for research.

Agencies set up to regulate and finance research have as yet been successful in only a few developing countries of the Region, but to some extent have already prompted intersectoral coordination and the formulation of national research plans.

The meetings noted the shortage of manpower and the need of incentives for researchers, such as the creation of career research posts in ministries and universities. In addition better use should be made of fellowships so as to enhance the returns from them and to avert emigration.

In this respect, it would appear important to redefine the parameters of scientific research. It should spread out from the academic world, where it has mostly been pursued, to all the sectors that directly or indirectly participate in health work.

The experience of the sixties showed that applications of technological progress did not in most cases, produce the benefits observed in the industrialized countries where the technology had been developed. It became evident that the health systems of the Region's developing countries had certain features that would make much of that technological progress irrelevant. It is not enough for an effective vaccine to exist if it connot be used, or if prevailing human and environmental factors cause it to be used improperly. "Technology transfer" has been the most widespread means of bringing technological development into the Region's developing countries. In practice it

consisted in the uncritical acceptance and indiscriminate, wholesale acquisition of technologies rather than of knowledge without any regard for their actual usability, suitability, efficiency or effectiveness.

The problems that began to arise during the application of technologies inappropriate to the health systems in the countries gradually generated a spontaneous process of innovation, mainly at the level of the delivery of services. This process was full of possibilities, but was not sufficiently recognized or taken into account.

In the seventies the decision of the Governments to make a massive effort to extend their health services to the entire population within a very short time frame put the system into crisis for two fundamental reasons: a significant impact had to be made on the health profile of their populations, and the efficiency, organization and management of the resources had to be maximized, and to do this new ways had to be devised and acceptance gained by both "providers" and "users". The methods in use quickly proved incapable of accomplishing the proposed extension of coverage. The technology used copied from the developed countries and basically designed to meet the needs of the residents of industrialized nations, could not bring about the extension of coverage, not only because of the enormous costs involved, but also because it gave an inadequate response to the problems and characteristics of the very people whom the Governments most wanted to reach: those who had had no part in social progress. This crisis did have a positive side in that it compelled an urgent search for more appropriate procedures that would be effective, efficient and workable in the specific setting in which they were intended to be used.

The search for appropriate technology was one of the concerns of the seventies. However, this search was not so much a systematic course of action as an expression of interest because it lacked any specific direction. In many cases, the obstacles raised by inappropriate technology were surmounted by means of curtailing the coverage because the resources required by the technologies in use were not always available. The present decision to achieve "Health for All by the Year 2000" by using the strategy of primary care confronts the developing countries of the Region with the inescapable necessity of seeking and achieving an appropiate technology that will enable them to attain this goal. An analysis of some of the major problems that hindered the development of appropriate technology in the last ten years can be of great use.

One of the fundamental problems was the lack of up to date, accurate and comprehensive information at the time when a decision was to be taken on technologies. Development of national and intercountry systems for this type of information is of vital importance to strengthen the countries' capacity to choose and decide.

Another problem was the evaluation of technologies, a basic input on which the countries must rely in making their technology decisions. Despite the host of technologies currently in use in developing countries, there are very few that have been evaluated as to their benifits, cost, efficiency, safety, and ethics. Analysis of the few known cases of technology evaluation shows that it must be selective and must follow precise guidelines if it is to yield useful results; it must also proceed in the framework of needs and priorites established for the specific system in which the technology is used, and in the light of the economic and technical capacity of the system to use it.

The countries' intensive efforts to bring about extension of coverage usually overstrained their administrative support capabilities in the early stages of the process. This was one of the factors that focused attention on the development of supervision, which was regarded as vital to impart the necessary dynamism to the implementation and decision making processes so that the system could be adjusted as needed to constantly and unforeseeably changing conditions. Experience has shown that supervisory mechanisms are the best way to identify the problems that arise in the delivery of services and the innovations made at that level to solve them. Thus, adding the technology analysis component to the supervisory system so that service problems and innovations can be more easily detected is one of the most effective ways of contributing to the development of appropriate technology. This approach, now being used in some countries with encouraging results, is also apparently proving to be a mechanism of choice for bringing about the acceptance and use of appropriate technological innovations.

The selection of technologies is the focal point at which all the factors operating in any decision-making process come together. This process interacts dialectically with the innovation process. The vitality of the innovation process is a potent indicator of the capacity of a society or group of people to solve their health problems in a particular geographic, economic, demographic, and cultural setting. The countries' selection of technologies has been restricted by the narrow range of options and by the range of conventional technology available on the international market. In practice, therefore, the process has been more one of choosing than of selecting.

These constraints on the selection and adoption of technologies, caused mainly by the nature of the transfer process, have had consequences for the countries' own creative potential, and find their counterpart in the weakness and irrelevance of many scientific research projects, in which people and resources are employed in investigating subjects that have no priority in the country's current health situation using methods and approaches unsuited to its characteristics and possibilities, and diverting scare resources away from relevant problems. Resistance to change is one of the most important problems encountered in an analysis of the decade. It is necessary to develop an attitude conducive to national creativity and innovation and to do this strategies must be found for overcoming the resistance of "providers" and "users" to innovation. These strategies must seek the recognition, encouragement and reinforcement of local innovation, which is of central importance. As an essential complement, scientific research would have to be steered toward the search for an identification of problems, their causes, and solutions that are relevant and approprite to the national setting.

In the past, local innovation enjoyed no recognition and was not encouraged. Development of the innovation process is vital, however, and it must be studied, documented and publicized through an information system that will foster its maximum development and improvement.

The mechanisms for information and evaluation, supervision, selection, innovation, research and the accumulation of knowledge form a logically interrelated whole in which the performance of the one component affects and is dependent on that of the others.

The "appropriate technology" approach is actually substantially different from what the countries have been doing to acquire develop and use the technologies they have felt they needed. Clearly, that in no way closes the door to the importation of technologies. On the contrary, it seeks to devise mechanisms for acquiring those that are most appropriate, to modify and adapt those that are needed, and to develop the capacity for generating those unavailable internationally, and which are after all, proper solutions to salient problems. Moreover, a claim must be made for a better distribution of and greater access to current knowledge.

1.8 DEVELOPMENT OF HUMAN RESOURCES

1.8 DEVELOPMENT OF HUMAN RESOURCES

1.8.1 THE PROBLEM OF HUMAN RESOURCES IN THE HEALTH SECTOR

Studies of supply and demand

Examination of previous studies of supply and demand among health personnel (i.e. human resources planning) shows that up until the middle of the twentieth century these studies were unnecessary. Demand was so great that meeting an excessive shortage was a sign of progress. Consequently, attention was centered on educational design--on content--rather than on what human resources represented as a response to changes in the social context.

As health levels improved, with a corresponding improvement in overall welfare, it became possible to look at the problem of human resources in its three dimensions: planning, training, and utilization. Human resources are essential components of the socio-economic development process, intimately related to the type of society to which they belong. Hence, it is impossible to plan human resources without a definition of the society they must serve. In other words, the society defines the health practices, which in turn determine the human resources needed to carry them out. With this perspective of change in mind, there is not only a need to improve indices of growth and productivity, but also to redefine the functions of the "health team" to meet the demands of an evolving society.

The Ten-Year Health Plan for the Americas set a series of quantitative goals for the different health professions, but made only a few references to the changes in structural relationships of health programs and services necessary to attain these goals. This fact has for some years distorted human resources planning by directing countries' attention toward meeting global goals which had little significance when applied to the actual health situations in their communities. Thus, the improvement in doctor/inhabitant ratio achieved in many countries did not improve the ratio of doctor/underprivileged rural population. Also, due to the fact that utilization criteria were not taken into consideration, some cases of professional unemployment or underemployment resulted, which had very serious consequences in the form of the high social cost paid by the very poor countries.

Between 1973 and the present, countries tried to follow many of the Ten-Year Health Plan's recommendations, with varying results. Offices, departments or divisions of human resources established within the Ministries of Health of 15 countries showed very different developments. Most of these bodies do not have sufficient power to accomplish their principal roles because of their obvious disassociation from the education sector. These situations have not yet been resolved.

Subregional groups have also been useful in organizing some studies. In the Andean Pact countries a study on the characteristics of "Human Resources at the Intermediate Level, Technology of Health" was done in compliance with a resolution of the III Meeting of Ministers of Health of the Andean Area (Caracas, 1974, RGMSAAS .3/33). A similar study was attempted in Central America and Panama, but only Honduras and Costa Rica were covered.

Overall, it appears that health manpower planning, after an initial period of enthusiasm, is now at a stage of reduced activity. Offices of Human Resources have leaned more toward training technical and auxiliary personnel. However, there have been signs over the last two years of a new interest in planning, in tune with the development of programs for extension of coverage.

The problems involved in the planning process are varied. Among these, the most prominent are 1) decisions about human resources made independently from the general health plan, 2) lack of planning for health teams, 3) problems in the organization of the health sector, 4) inadequate knowledge about the conditions for selection of health personnel, 5) absence of clear-cut policies and 6) an underestimation of the importance of sociocultural aspects.

Policies

Most countries of the Region have not defined policies on planning, development and utilization of human resources in the health sector. Policies have been proposed for some professions, particularly the university-educated, or those upwardly mobile groups whose practices are governed by specific legislation denoting their rights and responsibilities. However, these policies have more to do with the educational aspects of human resources than with the planning process, and often do not take overall health planning into account.

At some meetings organized by PAHO, such as the Pan American Conference on Planning for Human Resources in Health, recommendations were made for the determination of policies on human resources, but little has been achieved in this regard. It would appear that the lack of a definite policy for the health sector as a whole in many countries is the cause of the lack of policies on human resources.

1.8. HUMAN RESOURCES TRAINING

Expansion of the Training Network

The lack of up-to-date information makes it very difficult to make a scientifically valid assessment of the training process. The expansion

of the human resources training network, particularly at the higher levels and medical schools, has become so great that efforts to control it have been fruitless.

In 1970, there were 151 medical schools in Latin America, distributed as follows: Argentina, 9; Bolivia, 3; Brazil, 65; Chile, 9; Colombia, 9; Costa Rica, 1; Cuba, 3; Dominican Republic, 2; Ecuador, 4; El Salvador, Guatemala, Haiti, Honduras, and Jamaica, 1 each; Mexico, 22; Nicaragua, Panama, and Paraguay, 1 each; Peru, 6; Suriname, 1; Venezuela, 7 and Uruguay, 1. In 1980, there are more than 210 medical schools that will graduate about 196,000 doctors over the next six years.

The same increase can be seen in other health science schools, but without the same intensity as in the medical schools, particularly as regards the numbers of students.

This expansion of the education opportunities for professionals bears no relation to the countries' health policies. There is cause for concern over the large number of medical students and the policy of creating new positions for the programs of extension of coverage, particularly at health technician and auxiliary levels.

Development of the physical facilities and the technical and operating capacity of the health system should go hand in hand with proper development of personnel already on the job. It will be necessary to plan, train, utilize, and retain health personnel in adequate numbers, and with the skills required to meet the needs of the health services.

Available information shows that in Latin American and the Caribbean there were an estimated 580,000 health workers in 1970 and 977,000 in 1977. Projections give an estimate of 1,050,000 health workers in 1979. If this increase is compared with the population served, it will be seen that the total number of health personnel per 10,000 inhabitants went from 20.6 in 1970 to 28.7 in 1977. The assumption, therefore, is that there is not an overall lack of personnel, but rather a scarcity in some categories caused by an imbalance in the health sector's job structure. The table below shows the breakdown of the job structure by broad categories of personnel for 1968, 1974, and 1977:

Type of personnel	1968 Number	%	1974 Number	%	1977 Number	%
With a university degree or higher	254,000	45.0	509,000	62.0	616,000	65.0
Technician	62,000	12.0	41,000	5.0	43,000	4.0
Auxiliary	224,000	42.0	206,000	33.0	318,000	35.5

While some of the differences shown are due to better record-keeping, different classification standards or the integration of some classes of technical staff into the professional category, developments over the decade show unequivocally that there is a severe shortage of intermediate level technical personnel, and a sustained increase in professional personnel.

These two factors suggest that the policies of giving priority to technical and auxiliary personnel have not yet been put into effect, and that this type of personnel have not been fully utilized in the health services as now constituted.

Calculations on staffing in the health sector in 1977, based on anticipated physical structures, predicted a need for more than one million additional health workers in 1990. This does not mean that personnel must double in number between 1979 and 1990, which is unlikely, but rather that if the physical structures were expanded, they would absorb an additional million people, including:

-150,000 professionals:	doctors, nurse, dentists and others.
-250,000 technicians:	technicians in nursing, diagnosis, theraphy, sanitation, etc.
-650,000 auxiliary personnel	nurses' aides and rural health auxiliaries.

The figures show that the greatest future demand will be for auxiliary personnel. Next comes technical staff, and to a lesser extent professionals.

It should be noted that most of the countries have satisfactory educational facilities for university education. There are also programs, although generally insufficient, for training auxiliary personnel, but there are serious deficiencies in the training of intermediate level technical staff. This calls for an urgent revision of current policies.

It has been calculated that for Latin America and the Caribbean, the cost of training the additional staff necessary will be about one billion dollars over the next decade. However, it should be stressed that the basic problem does not lie in the initial costs of training additional personnel, but rather in the recurring costs of their subsequent employment at adequate pay levels. The amount of funds needed raises problems for the national health services. Sufficient national financing or, failing that, external financing, must be assured until the ongoing costs can be absorbed by the health system.

The number of personnel required for the health services in the 10 years from 1990 to 2000 will depend on the following factors: 1) on the coverage obtained in the eighties, 2) on implementation of the primary care strategy, 3) on the success achieved in the control of infectious diseases, and 4) on the extent to which appropriate technology is used. Nonetheless, it is important to note that by the year 2000, even assuming a slowdown of the present rate of increase, health personnel in Latin America and the Caribbean will number nearly two million. This will create major problems with respect to reorientation and retraining.

Undoubtedly this disparity between the demand for and supply of human resources is the result of inadequate planning for human resources in health. It cannot be said that overall development planning is providing an adequate framework into which educational planning in general, and health planning in particular, can be incorporated. The problem is not simply the weakness of the organizational links between the educational and health fields and in the philosophical disagreements as to the place of education in overall planning, but also in the many practical obstacles to planning in a politically unstable setting in which the vested interests are deep-rooted and the resources scarce.

Within the overall picture of trends of education in health in Latin America, there are significant differences between the countries. The various economic levels and rates of growth, and the different processes of change in the social structure (where urbanization seems now to be playing a preponderant role) make for different opportunities and limitations in the education systems.

Multiprofessional Coordination

Many attempts have been made to develop the multiprofessional approach to training the "health team", so that it will be more than just a collection of individuals and isolated disciplines and occupations.

The promotion and support given to the schools of health sciences and curricula that were "spirals of increasing complexity with lateral outlets", were examples of change starting from the educational process, but no results have been shown yet. It is felt that this lack of success was due to the false belief that essentially individualistic and curative health practices could be converted into comprehensive team practice.

The individual health practice is presently predominant, and the one that guides the educational process. It would seem that even when an educational system is designed to perpetuate the status quo, the mere fact that it has grown beyond a certain point will make it increasingly difficult to preserve the desired status and the existing occupational relationships.

In Latin America, the point of departure for educational planning and human resources development has until now been subordinated to general objectives of increased overall income. A choice was therefore made of one of the possible alternatives.

Initiatives in the area of human resources planning were not based on a concept of overall planning. This becomes clearer when it is seen how rarely the goals for growth were translated into jobs, productivity, and quality of manpower. There is also an absence of explicit employment policies and a failure to learn techniques for projecting educational and training needs.

If more backing is to be given to multiprofessional training, especially at the technical level, the following changes must occur: (1) Real transformation in job opportunities and (2) an adequate change in the incentive system.

Thus, for example, the number of nurses will not increase--or if it does, it will soon cease to--if there are no real opportunities for practicing professional skills, low pay and low social prestige. The same can be said for intermediate level health technicians, who represent the bottleneck of the health services.

Translation of the potential demand of the job market into educational needs raises difficulties that, though not insuperable, should be borne in mind. Therefore, to meet the needs for multiskilled, flexible staff, adaptable to many situations, different combinations of in-school and out of school training must be used. However, this could lead to a situation where it seems that there is no scarcity of skilled personnel, because the problem has been evaded by replacing some occupations with others of lower quality.

In summary, there are at present significant disparities between the optimal qualifications needed and those possessed by available personnel. But this is a social cost that has to be paid, and a shortcoming that can be overcome by sound programs of continuing education or full-time education.

Development of Teaching Skills

The program areas that guided activities in this area were: planning and administration, and the development of human and technological resources, through which it was attempted to attain a greater degree of relevance in the educational process. This meant elaborating strategies to facilitate technical cooperation between countries for the development, implementation, adaptation and dissemination of appropriate technologies in the field of education. These strategies, in accord with national health plans and programs, were based on the innovative approaches of self-education, interdisciplinary study, and the combination of theoretical and practical teaching which are basic to giving personnel a better orientation.

Special attention must be given to efforts to create "project networks", where institutions and organizations in a number of countries concentrate on the same problem. This coordinated action at the national level fosters both regional and technical cooperation between national groups.

Other major occurrences during the period were the creation and adaptation of methodologies, and training in teaching practices offered to more than 3,000 professors and instructors a year at the Latin American Centers of Educational Technology for Health (CLATES) in Rio de Janeiro and Mexico. Projects to provide instructional materials, medical and nursing textbooks, and basic medical equipment for medical students during their education were also carried out. It is planned to extend this type of project to other professions and categories of personnel at the different levels.

Utilization of Personnel

This is the aspect of manpower development to which least attention has been given. As was mentioned above, the need for health personnel was at one time so great that employment opportunities were plentiful. This is not the case now, and the signs of professional unemployment and underemployment are becoming widespread. The lack of policies on health personnel makes a career difficult. The rapidity with which structural changes now takes place demands flexible training to enable personnel to cope with the changes that will come about during their careers. This, coupled with the fact that education means all-around training, makes it necessary to increase the scientific content of technical training and to include in science education more instruction designed to develop skills and aptitude.

At the beginning of the past decade, as a consequence of the requirements of the extension of health services coverage, Member States again concentrated their efforts in the organization and training of community resources for the promotion of health activities and the delivery of some specific services. The experience has shown that these constitute a valuable instrument for the extension of health services with primary health care, in spite of the fact that their functions, their relationship with the institutional system, and the training methods show a great variation from country to country. Simultaneously, some countries initiated programs of training and utilization of new types of paramedical personnel.

In order to identify the skills necessary to include in the educational system, programs of supervision of individuals in work situations by educational personnel are needed. Any training deficiencies found in personnel already on the job can be corrected by continuing education programs.

Supervision

In attempting to define supervision, one can start with a simple concept that describes a process common to all professions and occupations: the supervisor must ensure that performance standards are maintained. Actions in the health field are difficult to evaluate because in general the objectives and activities are less explicit and less concrete. Therefore supervision is complex and performance appraisal difficult.

The difficulty in defining the criteria for supervision of health activities derives in large part from many of the practical problems, still not resolved, surrounding the delivery of health services. Particular difficulty arises in trying to measure the effectiveness of health actions, or what is called the "impact" of health programs, on the well-being of people. In brief, further research is required in the field of supervision.

Supervision in the health area should be the most effective means to promote personnel development --development not only in terms of application of techniques and knowledge, but also in terms of personal development in a complex and changing environment.

Supervision should be supportive and involve employee counseling, and also, afford the possibility of the supervisor working and resolving problems with the person being supervised. Supervision should also contain a strong empirical research component that can lead to change and improvement. Finally, supervision should continue to be an important function of management, and should promote participatory leadership, self-monitoring and constructive evaluation.

Continuing Education

In Latin America and the Caribbean there are specific problems in continuing education that are much different to those experienced by more developed countries. If the goals of: extension of coverage decentralization, primary health care, utilization of health auxiliaries and community participation are to be realized, continuing education of health personnel must play a large role in these programs.

In all the Region's developing countries, continuing education activities, which contribute to the education, training or support of health personnel, are now being increasingly undertaken. Present information, while partial and incomplete, suggests that these activities represent a meaningful and valuable effort, and could mobilize considerable financial resources.

A comparative study carried out on continuing education programs developed in several countries showed that the general heading of continuing education embraces a very wide range of diverse activities. It is essential in the future to make a clear distinction--depending on the objective sought by the program--between the various types of training that health personnel receive in the course of their professional careers.

Thus, the study showed that the same program may include activities with different objectives which require different types of training including: a) in-service training (2 programs); b) standardization (23); specialization (27); refresher courses (48); retraining; personnel development (19), and repetitive or reinforcing education (4).

This study showed that programs are generally organized in terms of the needs of professionals. Each category of worker had their own specific programs, but the greatest number were given for doctors and nurses. There were also programs for dentists, pharmacists, technicians, administrative personnel, and auxiliaries.

Consideration of the sectoral distribution program included in the study showed that the public sector was the most active. Of 155 programs, 92 were conducted for personnel in this sector, 43 in the semi-public sector, and 20 in the private sector.

One important point is whether a continuing education program is obligatory. This consideration has both legal and labor implications as well psychological impact. Information available on 123 programs shows that a majority (98) are optional. Coverage of the programs was found to be insufficient in rural and urban-fringe areas.

Educational Perspectives

The education of health personnel was once geared mainly to building up groups of professional excellence in an institutional based system to which only few of the myriad applicants could gain admission. This system was thus divorced from the health needs of the countries. Later, training began to be provided for personnel of other categories and levels, such as auxiliaries and technical staff. At present, personnel training has acquired its own more or less distinctive character, though it still does not have enough relevance to the real-life situation.

In the middle and upper levels, it is essential to maintain high rates of personnel increases, but the type of worker turned out by the training process must be changed radically. However, it would be erroneous to interpret these needs as automatically implying higher enrollments and additional funds for education.

The new programs of extension of coverage call for massive training of personnel at all levels and in all categories, depending on the health problems and resources of each country, but particularly of technicians and auxiliaries. Thus, manpower training in the health field and its programs and objectives should not be predetermined or ordered in sequences or in terms of borrowed social and educational models designed for one group in the society. Rather, it should be the outcome of an ongoing appraisal of health needs. Education should thus be continuous and integrated, and the whole society should participate in it.

This type of education, linked to the services as part of the process of integrating teaching and practice, makes each student a worker. Involvement in community development enables each student to arrive at an understanding of himself and his community.

In recent years, the expansion of the general educational system has not been accompanied by an improvement in its internal effectiveness, evaluated in terms of its capacity to retain students. The low retention rate of primary schools has been noted. A high student dropout rate, characteristic of the entire educational process in Latin America all the way up to the university level, points to a lack of relevance between the content of education and the needs of its potential consumers. Young people from the lower income levels, who are unable to make effective use of it, are particularly affected. High dropout rates also exist at the medical schools in some countries, where it is reaching alarming levels.

There can be no doubt that the problems with interdisciplinary education have not all been solved. The relationship between an interdisciplinary curriculum and the division of labor in society, the

PHYSICIANS AND NURSING STAFF PER 10,000 INHABITANTS
COUNTRIES IN THE REGION OF THE AMERICAS, 1971 AND 1978*

	PHYSICIANS		NURSES		NURSING AUXILIARIES	
	1971	1978	1971	1978	1971	1978
Argentina	20.2	24.0 a	2.1	6.7 a	4.5	9.2 a
Bahamas		8.9 b		34.0		2.2 c
Barbados	5	7	20	27	13.1	15.1
Bolivia						
Brazil	7.5 d		3.6 d		8.1 d	
Canada						
Chile	6.2	6.2 a	2.7	3 a	12.8	18.6 a
Colombia	4.6	5.7	1.1	1.9	1.8	8.9
Costa Rica	5.2	7.2	4.2	6.2	13.0	16.4
Cuba		13.7		12.9		14.2
Ecuador	5.1 d	8.0		9.6 b,e		4.8
El Salvador	3.0	3.5	3.0	3.3	4.6	5.7
U. S. A.						
Guatemala	2.8	4.6	2.2	2.0	2.0	5.8
Guyana	2.4	1.3 a,f	2.5	10.1 a	5.1 d	
Haiti	1.1 c	0.8 g	0.9 c	0.9 g	1.6	1.2
Honduras	2.6	2.6	1.7	0.9	5.6	7.8
Jamaica	4.1 d	3.6	5.7 d	16.7		
Mexico			4.1 d		4.8 d	
Panama	6.7	8.1	6.3	6.7	12.7	15.8
Paraguay	5.8 d			2.8 d	7.1 h	
Peru	5.3	6.6	3.3	5.0	2.9	4.4
Dominican Rep.	4.5 d	3.9			6.8 d	8.4
Suriname	4.6	5.7	10.6	18.6	3.2	14.0
Uruguay	11.6					
Venezuela	9.6	10.5	5.9	6.7	14.7	

a/ 1977. b/ 1979. c/ 1973. d/ First evaluation, done in 1974, of the Ten-Year Health Plan for the Americas, 1971-1980. e/ Nurses in the Ministry of Health. f/ Does not include physicians in private practice. g/ 1976. h/ 1974.

*Information provided by the countries for the Evaluation of the Ten-Year Plan.

types of skills needed and the supply and demand of manpower, is still not completely clear. These factors must be examined and solutions found. There is need for a closer relationship between study and work, between teaching and care, not just as a strategy, but as a subject for study and research to enable solution of the problems cited.

Science cannot be separated from its application. Between general education and professional application there is neither opposition nor separation, but rather continuity, just as there is between professional training and research. Education of health personnel should be the best proof of this. The close ties that can be established between the schools, the health services and the community should serve as an example for other disciplines to follow.

1.9 DEVELOPMENT OF INTERSECTORAL LINKAGES

1.9 DEVELOPMENT OF INTERSECTORAL LINKAGES

An essential precondition of the universal goal of Health for All by the Year 2000 and its strategies is close and effective linkage of the health sector with other national development sectors in order to raise the standard of living and the quality of life, and to lessen extreme poverty and inequalities between groups.

The health authorities in the Region of the Americas have long been aware of this need. At the beginning of the sixties, there was increased concern to achieve more effective articulation prompted by the Hemispheric initiative at Punta del Este and by the boost it gave to economic and social development planning processes, to which the health sector then became formally incorporated. In the seventies the problem of intersectoral articulation came to the forefront, chiefly as the result of the decision of the Ministers of Health of the Americas to extend health services coverage to the entire population.

An examination of developments in earlier decades enables us to classify the sector's many initiatives into four broad types of approach, which in most cases were tried simultaneously, but not always with the necessary coordination and consistency. Thus, simply for ease of analysis, we may focus on the following: attempts to find intersectoral articulation in projects at the local level; conclusion of intersectoral national "summit" agreements and their institutionalization; the health sector's participation in integrated rural development programs, and in large-scale development projects for hydroelectric dams, hydrographic basins, large industrial complexes, expansion of agricultural frontiers by peasant settlement and colonization, creation of population centers, and the like.

These efforts by the health sector to attain intersectoral articulation have their analogues in the integrated or unified development approaches tried out at the same time in the broader field of economic and social planning. The evidence that the economic growth and social change processes then under way did not necessarily lead to a better or wider distribution of the fruits of development, raised in the sixties the problem of intersectoral articulation. The "unified" development approach thus found broad international acceptance as a means of turning high rates of economic growth into real social change.

Even though the attempts to apply these "unified" approaches were few, the experience of the seventies showed that they too were incapable of solving the problems that had originally caused them to be adopted.

In most cases, "unification" was merely a stringing together of the objectives of the various sectors involved. They were laudable in themselves, but they were never brought together in a manner that would coalesce the various sectoral objectives and resources into a more potent whole for the attainment of a common goal. This was not the way to solve either the problem of subordinating and merging objctives to a common end, or that of maximizing the efficacy and efficiency of the resources employed. Simply adding on objectives and resources made the proposals unrealistic in practice.

Experience has shown that one of the causes of failure was purely methodological. However, to this methodological difficulty of integrating objectives, strategies, activities and resources were added others that had greater impact and were difficult to overcome. Perhaps the most important was the inability to get a commitment expressed in overall operating policies, either explicit or de facto, that would make unified proposals feasible and workable. The "unified" proposals were invariably in basic conflict with the prevailing development styles.

It, seems legitimate, therefore, to conclude that a necessary precondition for developing this approach is to adopt some type of hypothesis or "unified" idea of a desirable social change. These hypotheses must be based on the realities of the societies of the countries, which are generally heterogeneous and in conflict and which are undergoing uncontrolled processes of change. To this substantive problem, and to the methodological inadequacies mentioned, has been added the disjointing effect of the various persistent national and international campaigns, such as population, children, the aged, women, Indians, etc., in which the Governments have invariably engaged. Each of these campaigns is legitimate in itself, but together they were congeries of ideas and priorities that were not always consistent or compatible, could not be unified but only strung together, and invariably competed with each other for available resources, including national attention and talent.

1.9.1 INTERSECTORAL PROGRAMMING AT THE LOCAL LEVEL

By the sixties, the health sector already had a long history of trying to enhance articulation among various contributing sectors, particularly the education and agriculture sectors, in an effort to improve health and standards of living at the local or community level. These programs generally involved aspects of community development, improvement of the environment, education for health, nutrition, production of some foods for family or community use, and some basic aspects of health protection. The health sector usually joined with the local resources of the education sector and of the agricultural extension programs. Conspicuous examples of this type of program were the Integrated Nutrition and Food Programs.

Many of these efforts produced positive results and managed, at least for a time, to attract the enthusiastic participation of the community, to produce food for the families involved, and to develop positive attitudes about and awareness of basic health, nutrition, and environmental health problems. However, even the most successful projects in the end had little impact on health and food problems at the regional and/or national levels. Moreover, the volume, concentration and maintenance over time of the resources needed made it practically impossible to replicate these nutritional programs on a large enough scale attain the desired overall impact.

They also came up against substantive problems, such as a lack of sustained institutional commitment, partly because the program objectives were not consistent with national, regional, and local economic and social policies. This lack of sustained commitment and logistical and technical support that was generally sporadic and insufficient resulted, in most cases, in the project's slow disappearance or in a distortion of its initial objectives. Inadequate supervision and coordination in the conduct of the programs also contributed to the deterioration of these projects.

One feature that was notorious for its impact on intersectoral coordination and community participation was the frequency with which programs that were similar, but had different aims, interests and sponsors descended all at once on a community--usually a small one-- and competed for its attention and for its participation in carrying them out. In most cases, this situation was a reflection, at the local level, of a lack of well-defined consistent economic and social policies at the national level, and of coordination among institutions. This super imposing of programs led to confusion and to conflicts between the interests of the community and those of the sponsors executing the programs. Nonetheless, the community and the various local institutional sponsors often managed to come to some agreement for coordinating the work and complementing and subordinating objectives.

There was also a positive side to these experiences at the local level, which should be evaluated and taken into account in designing intersectoral coordination policies and programs on a broader scale. They demonstrated that a community could respond constructively to sensible proposals for its development, and that a local program can be prepared and effectively implemented whenever there is coherent, sustained supervision and adequate logistical and technical support.

1.9.2 NATIONAL "SUMMIT" AGREEMENTS

Faced with the evidence of the minimal impact of these "articulated" programs at the local level, particularly in solving problems of undernutrition and availability of food, and the difficulty of maintaining them, the efforts of the health sector in the area of intersectoral articulation were redirected toward achieving "summit" agreements at the national level.

These efforts had rapid success, and at the end of the sixties and the beginning of the seventies, formal policy declarations and agreements were promulgated at the highest levels in the countries. In some cases, they were supplemented by groups organized at the highest levels, whose stated purpose was to establish, coordinate, and orient these policies, which were mostly aimed at increasing the availability of food and controlling undernutrition.

It shortly became evident that the formulation and declaration of these policies and the institutionalization of intersectoral groups were not generating the commitment needed for their effective operation. The phenomenon described above repeated itself here. Although the policies were well defined and enunciated, they were not, in most cases, translated into the necessary revision of de facto policies or of their implementing plans, programs and projects. Even when this revision was made, in very few cases was it accompanied by the design and application of policies for implementing the proposals. It thus became clear that the current strategies and national development proposals were not conducive, and sometimes were in opposition, to the application of these explicit policies.

Despite these negative aspects, the efforts made did generate a broad awareness of health problems and of their connection with the rest of the national development process. They facilitated and developed exchanges of analysis and proposals among sectors and between various pressure and power groups. They also brougth about a needed constructive review of the role and significance of the health sector in the countries' social and economic development activities.

Another particular form of these agreements at the national level was the institutionalization of sectoral health units and of other units confined to more specific problems in national economic and social development planning agencies. This process acquired momentum in the early sixties, and continues to thrive at the present time. It began in the Region with the inclusion of the health sector in the Declaration of Punta del Este. The extent to which the health sector became involved in the formulation of national economic and social development plans and the organization of that involvement varied, but in all cases the result was enhanced recognition of the sector, at least in public sector planning and programming.

In the first stages of this process, the health sector groups worked most actively on preparing special diagnoses and studies and on their allotment in the projections of public expenditure. The national health plans produced were confined in most cases to the ministries of health. However, a positive side can be discerned at least in the formal aspects of the process. Today nearly all health plans cover the major institutions within the sector, and are to a greater or lesser extent coordinated and included in the overall economic and social development plans. There is still no real answer, however, to the problem of effective intersectoral articulation.

In most cases, the health sector has been unable to become part of real intersectoral programming, neither among the social sectors, nor between the social and the "production" sectors. It must be acknowleged that this lack of real intersectoral programming is not confined to the health sector, but extends to all the social sectors that are formally represented in development agencies.

Parallel to this, and as a corollary to attempts to formulate food policies, a trend began in the seventies to organize interdisciplinary ad hoc groups within the economic and social development planning units to deal with the problem of food and undernutrition. In most cases these groups were conceived and still act as a subsector, distinct from and not always properly connected with other sectoral units.

It seems possible to hope that national decisions concerning the goal of Health for All by the Year 2000 may be attained through the concerted action of the various social and production sectors. The ultimate aim of this effort--improving the quality of life and lessening inequalities--may prove an effective method for surmounting the political, methodological, and institutional problems that have hitherto impeded effective intersectoral articulation.

1.9.3 INTEGRATED REGIONAL PROGRAMS

The experience the health sector has gained from participation in integrated regional programming is especially worthy of scrutiny. This participation is one of the cornerstones of national strategies for refining the development of intersectoral articulation in coming decades. For ease of analysis, we should distinguish two types of regional projects: the "integrated" rural development projects, and large-scale projects like hydroelectric dams, industrial complexes, the building of intermediate towns, pushing back agricultural frontiers, etc.

The health sector's participation in the so-called "integrated" rural development projects has, in most cases, been very limited, and it has in practice been merely juxtaposed with other social sectors, usually education, but with no real integration of objectives, activities, or resources.

In large projects, the health sector did, at times, play a more substantial role, particularly in projects involving the mobilization of considerable numbers of people during both construction and operational stages, or in projects having significant repercussions on human ecology. In these cases, the major methodological difficulties encountered were:

- Inadequate information on the origins, numbers, and structure of the population mobilized by the project, the rate at which they were brought into it, their occupational structure and their probable income level.

- The absence of methodologies for analyzing and plotting a probable profile of well-being of the population as a basis for social services planning, and the identification of competing demands of the participating sectors.

Generally, there were no major problems of acceptance and recognition of the need to plan for social services as part of the overall project. Almost invariably, however, administrative and jurisdictional problems arose between the ministries of health and the autonomous corporations usually organized to execute and administer these projects. Despite these obstacles, which were overcome in the short term by timely decisions, the frequency with which the countries undertake projects of this type and their size and impact makes them a good strategic choice for refining the process of national intersectoral articulation.

While the setting is more limited, the same factors come into play in programming for a problem region as for the entire country. The desired health profile will have to be defined on the basis of the Region's future population, which means taking account of the area's internal and external sectoral links, estimating the potential of existing resources and the supplements needed, defining reginal strategies in the national setting which are consonant with the strategies for achieving the established goals, defining the role of government at the local, regional, and national levels, and studying mechanisms for mobilizing the community.

This approach is by no means a substitute for action on the national level, but it does afford an immediate and concrete evaluation of the theoretical and practical possibilities and difficulties involved in addressing the problems of change for the entire country.

1.10 FINANCING OF THE HEALTH SECTOR

1.10 FINANCING OF THE HEALTH SECTOR

One of the problem faced by many Latin American and Caribbean countries in their efforts to expand the coverage and scope of their health and other programs in the area of basic human needs, is the relatively restricted nature of overall government revenues and thus their capacity to finance such programs.

Although over the past two decades public consumption expenditures have, for the region as a whole, been increasing at almost the same rate as the Gross Domestic Product (GDP)*. It is anticipated that the rate of growth in public comsumption over the next two decades will have to be considerably higher to adequately finance the basic human needs programs that most countries are planning to implement. According to a recent study by the World Bank, for example, the cost of implementing a program to meet basic human needs in Brazil would require an increase in taxation equivalent to almost 2% of that country's rapidly growing GDP.

As Table I indicates, although over the past two decades the proportion of GDP which is consumed by the public, as opposed to the private, sector has tended to increase in most Latin American countries, it is still relatively small as compared to other more industrialized countries. In 1977, on average only 11 percent of each country's GDP was allocated to meeting all public consumption needs. This 11 percent of GDP, besides having to cover the salaries of all public employees and military personnel, also had to defray the costs of a host of other activities ranging from health, education and welfare programs to defense, justice and foreign affairs. By the way of contrast, the United States, Canada, Sweden and the United Kingdom were on average able to devote 22 percent of their much larger GDPs to public consumption. Private consumption expenditures in these latter four countries accounted for an average of only 59 percent of their GDP in 1977, as compared to an average of 70 percent in Latin America. Given the relatively small proportion of GDP allocated to meeting all public consumption needs in Latin America, it is not difficult to understand the severe financial constraints under which most publically financed social development programs operate, including those for health purposes.

As mentioned above, one of the reasons for the relatively small share of public as opposed to private consumption expenditures in most Latin American countries, is the limited nature of overall government tax revenues. In contrast to the majority of highly industrialized countries, most Latin American countries generate the bulk of their revenues from indirect taxes rather than direct taxes on individual and corporate incomes and the buoyancy of their tax systems is sometimes low. For example in one country, tax revenues as a proportion of GDP declined from 16.3 percent in 1971 to 13.1 percent in 1976. One of the reasons for the relatively low buoyancy of tax revenues in many countries throughout the region is the substantial dependence on foreign trade taxes which tends to make these countries' revenues very vulnerable to changes in external markets.

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*The average annual rate of growth in public consumption expenditure in the 1960's was 5.7% and between 1970 and 1977 the average annual growth was 6.2%.

TABLE 1

PUBLIC AND PRIVATE CONSUMPTION, AND INCOME TAX
IN LATIN AMERICA

COUNTRY	Public Consumption as a percentage of GDP		Private Consumption as a Percentage of GDP		Income Tax as a Percentage of Total Central Government Tax Revenue, 1977
	1960	1977	1960	1977	
Haiti	-	8	-	83	16
Honduras	11	14	77	68	-
El Salvador	10	11	79	68	13
Bolivia	7	11	86	72	39
Colombia	7	7	68	75	37
Paraguay	8	7	76	75	14 1/
Ecuador	10	10	74	64	25 1/
Guatemala	8	6	84	76	13 1/
Nicaragua	9	8	79	73	13
Dominican Republic	13	5	68	73	21 2/
Peru	8	15	68	74	-
Mexico	6	12	76	68	-
Jamaica	7	22	67	66	40
Chile	11	12	75	80	35 2/
Panama	11	14	78	71	34 1/
Costa Rica	10	16	76	65	26 1/
Brazil	12	9 2/	67	68	-
Uruguay	9	13 2/	79	74 2/	-
Argentina	9	10 2/	71	71 2/	4
Trinidad and Tobago	9	14	61	53	57
Venezuela	14	15	53	48	13 1/
Average (unweighted)	9	11	73	70	25
Canada	14	20	65	57	54
United States	17	18	64	66	59
Sweden	16	28	60	54	44 1/
United Kingdom	17	21	66	59	60 4/
Average (unweighted)	16	22	64	59	54

SOURCE: IBRD, World Development Indicators, June 1979
United Nations Statistical Yearbook, 1978-1979

1/ Taxes on income and wealth
2/ 1976
3/ Taxes on income and wealth do not include direct taxation of oil and mining companies, which would increase this figure to 64%.
4/ Includes social security and similar charges

In the long run, as their economies expand and as many Latin American countries restructure their sources of revenues and as their tax collection systems become more effective, the resources needed to support a wide range of programs aimed at meeting basic needs should be generated. In the short run however, administrators will be constantly aware of the need to develop alternative sources of financial support for health programs. In many countries it appears that one major source of additional funds for supporting health services could stem from expanded social security contributions. There are however, a number of potential limitations and caveats which could restrict funds from such sources being effectively utilized in national programs designed to provide health for all. For example, in many Latin American countries besides the fact that the ministries of health and their counterparts have little or no control or even effective coordination over the use of such funds, social security health programs are usually oriented towards more sophisticated curative services and very few of their resources are devoted to preventive and basic health care programs. In many countries it would appear that only by the national government establishing a clearly defined policy of earmarking a part of total social security health revenues to help subsidize a number of other national health objectives would some of the financial problems involved in rapidly expanding coverage to provide Health for All be partially alleviated. In this respect, it might be mentioned that in many countries social security health programs are themselves directly subsidized by governments from public revenues. Moreover, in so far as they use public facilities and health personnel who have been educateed and trained at public expense they are also indirectly subsidized.

There is also the question of who actually pays for social security health programs. It is believed that in many systems the incidence of the share of payroll taxes initially paid by employers is to a substantial degree shifted to consumers through higher prices for many goods and services. As a result, some groups of the population, mainly those living in rural areas and the poorest urban groups, help finance social security systems without receiving any benefits.

In general, it is the regressive nature of the real sources of the funds used to finance social security programs and the resulting perpetuation of inequities in income distribution coupled with their restricted coverage which is giving rise to growing concern in many of the Region's countries. In the context of strategies to meet basic human needs it would appear that in none of the Region's countries are the autonomous or semi-autonomous social security systems a particularly constructive influence. However, given a redefinition of their policies and roles such systems could become a very constructive factor.

Another underutilized alternative open to many Latin American countries is the imposition of a broader range of user charges on the recipients of publically financed health care. Very often, even when charges are made for goods and services, they seldom accrue to the account of the government agency actually financing the goods and services. It is thought, therefore, that many governments may wish to undertake a review of the benefits which could be dervied from the imposition of user charges for many of the health goods and services now provided free of direct charges. It is not believed that charges should be made for all health goods and services or that the charges should defray the majority of the costs involved. In the past when some countries have attempted to introduce charge (or fee) schedules in public health facilities it has often

been found that the cost of the administrative and accounting mechanisms required to garner and regulate such charges (or fees) has cancelled out the additional income they were intended to generate. On the other hand the imposition of a schedule of nominal charges (or fees) for a selected range of health goods and services should not only be regarded as a supplementary source of finance but also as an effective way to minimize the waste and excess utilization which usually accompany the provision of totally free health goods and services. Whenever it is decided to introduce a schedule of nominal charges or fees, special care must be taken to ensure that the charges do not work against the system's prime objective of providing services to disenfranchised groups and to reduce social inequalities.

Cost Savings and Alternative Approaches to Health for All

If one combined the health expenditures of all government agencies it would appear that in the majority of Latin American and Caribbean countries, the resulting aggregate would be sufficient to meet the high priority health objectives included in each country's strategy. However, it is equally evident that this would require a drastic restructuring and curtailment of the types of services currently being provided by these government's health agencies. Thus, whereas it is well known that most countries are anxious to introduce a number of major reforms in their health care delivery systems aimed at: de-emphasizing physician and hospital based services, increasing efficiency, reducing costs and expanding coverage, it is not believed that any country is planning to drastically curtail the nature and scope of the services they currently provide to a substantial proportion of their citizens in order to provide a very restricted range of health care to larger numbers of their citizens. Although such a curtailment might produce some immediate benefits in terms of freeing up resources which could be used to extend coverage, its long term impact could be highly detrimental to the future evolution of their health care delivery systems and the overall health status of their population. Thus, in most countries throughout the region it is apparent that the additional resources needed to provide extended coverage will have to be garnered from a number of different sources and that savings resulting from the curtailment, restructuring and streamlining of existing services, while playing a very importance role, will not in most countries be the predominant factor.

In contrast to the strategies which are being persued by many developing countries in other areas of the world, when most Latin American and Caribbean countries speak about restructuring their health care delivery systems, they essentially mean broadening the base and intermediate levels of their existing pyramidal hierarchy rather than severely truncating the pyramid. Primary health care is not regarded as a program but as a strategy that permeates every level of the pyramid. In adopting this approach, it would appear that these countries are taking into account two important factors which tend to distinguish them from developing countries, often with similar levels of per capita income, in other parts of the world. The first factor is their relatively more abundant supplies of health personnel and health facilities, as well as the future output of their education and health training institutions. The second factor is the rapidly evolving nature of their patterns of morbidity and mortality and trends in other demographic variables. In many countries a third factor would also appear to be significant, namely their well above average potential for sustained economic growth and increases in public revenues.

Over the coming decade it is believed that one of the most difficult problems that will be faced by many Latin American countries in their attempt to streamline their existing health programs and extend their coverage will be that of coordinating all public and social security activities in the health sector. In most countries, besides the myriad social security istitutions, there are a host of public and paragovernmental agencies which are active in the health field. The end result is that there currently exists a chronic fragmentation of health resources among numerous administrative entities. This fragmentation of the health sector is frequently highly detrimental to the development and implementation of comprehensive national health policies and often gives rise to very serious problems stemming from overlapping jurisdictions and interagency conflicts.

Over the past two decades, problems of this nature have become so endemic that throughout much of the region, it currently appears that no single government body has a clear-cut and over-riding responsibility for national health or the development and execution of a national health policy covering the entire population. Each of the many central, regional and local government agencies, and the myriad social security institutions, active in the health field operate programs serving different population groups. Indeed, in many countries, given the apparent disarray in the provision of health services, it is no longer relevant to talk about the "organized health sector" because it is scarcely any better organized than the private sector. To a large extent, the only common thread that has appeared in a number of countries is that the ministry of health and its regional counterparts appear to have been assigned a primary responsibility for collective preventive measures and the social security institutes have restricted their responsibilities to individual curative activities, leaving other ministries largely responsible: education, for nutrition, water supplies and sanitation programs, etc.

Fortunately, it appears that a growing number of governments have recently started to take the necessary action to reduce this fragmentation of policy and regain effective control. Frequently this is being accomplished by assigning overall responsibility to the ministry of health, or by establishing a co-ordinating council at the national level, and sometimes, by a combination of both these approaches.

In a number of countries this proliferation of health responsibilities has also led to considerable duplication of effort in the provision or care. In some areas of a country, for example, it is not unusual to find several different agencies operating health facilities in close proximity to one another while other areas go unserved. Nor it is unusual to find that hospitals and other health facilities are constructed without sufficient attention beig given to the need to provide them with adequate operating budgets to cover not only staff salaries but also needed drugs and other medical supplies, as well as repairs and replacement equipment.

There is also a growing need for improved coordination in connection with the growth of community based self-help efforts. In many areas it would appear that a potential for conflict exists between community based activities and other levels of the health hierarchy. To avoid the emergence of new problems, uniform standards and operating norms need to be introduced covering the primary health care practices of local community programs. Such programs need to be expanded in a more organized framework.

Besides the savings which could be derived from better coordination and a clearer delineation of responsibility and authority in the health care delivery systems in many countries, it is equally clear that considerable savings could be made at the micro-level by improvements in medical and administrative management. For example, in the area of reductions in health service unit costs, it is at the facility level (i.e. hospitals, health centers and health posts, etc.) that many countries could derive substantial savings. A pragmatic starting point would be to determine the most economic treatment procedures for common conditions (i.e. appropriate prophylactic, symptomatic or curative procedures) by comparing the efficacy, safety and economy in use of several alternative methods. Appropriate information and persuasion to introduce revised procedures can lead facilities to provide better care at lower costs.

Improvements in the triage of out patients can lead to significant increases in patient flows and thus allow health personnel to treat more patients at a lower cost per unit of service. In some Latin American countries the average length of stay in hospitals, particularly general hospitals, appears longer than is considered necessary in most other parts of the world. In these countries the costs per patient discharged when expressed as a proportion of average annual per capita income is often high even though the average cost per in-patient day when measured in the same terms is not greatly different to that prevailing in other parts of the world. In this respect, it is unfortunate that whereas many countries have adopted ratios and goals for the provision and utilization of health care, they have not established a schedule of unit costs which corresponds to these ratios and goals as this could allow them to see their future resource needs in a much clearer perspective. A somewhat cursory analysis by PAHO staff of some of the fragmentary cost data supplied by a few countries appears to indicate that, unless in coming years several of these countries are able to considerably reduce a number of their unit costs, the attainment of Health for All will require a doubling or tripling of the proportion of GDP devoted to health. In one of these countries, for example, it would appear that, based on current unit costs, the country would have to devote around 16 percent of its GDP to provide Health for All. In another country, the cost of each general hospital discharge was equivalent to almost half the average annual per capita income.

Generally speaking, it would appear that a renewed emphasis on prophylactic measures and more intensive use (increasing occupancy rates and higher turnover rates) of existing hospitals and other facilities coupled with lower unit costs would in a number of countries help alleviate some of the need for additional new facilities and generate savings that could be used in extending health coverage.

In brief, whilst the information submitted for this report and that available from other official sources, would appear to indicate that Health for All by the Year 2000 is an attainable goal it also highlights a number of steps that will have to be taken in its pursuit.

At the national level these usually include, but are not limited to enhanced inter-sectoral collaboration, greater equity in income distribution, generation of additional public revenues. Within the health sector these usually include, but are not limited to, greater intra-sectoral coordination; expansion in the coverage of the organized sector;

improved control and management; increased efficiency in the utilization of existing resources; improvements in the organization and delivery of care; greater collectivization of public and private expenditures; improvements in cost accounting; experiments in modified delivery systems and new approaches.

TRENDS IN NATIONAL HEALTH EXPENDITURES

Information concerning current health expenditures are invariably used in developing estimates of future expenditures and their collation and analysis are one of the primary steps in the development of health plans and policies. Thus when current expenditure estimates are reviewed in the context of anticipated overall national economic and financial trends, they provide a valuable pragmatic basis for decisions concerning the share of GDP which will be allocated for health services, the types of services to be provided, and the sources finance for these services.

Unfortunately for most Latin American and Caribbean countries, no comprehensive and reliable information is as yet available on a routine basis, concerning trends in total (public and private) national health expenditures. Moreover, for the majority of the Region's countries much of the somewhat confusing array of information that is available concerns only the health expenditures incurred by some of the central government agencies involved in the provision of health services.*

*For these and other reasons mentioned later in this section, it was decided that it would be wiser not to attempt a systematic country by country review of national health expenditures for the region as a whole. Instead, it was decided to restrict the review to information sunbmitted to the United Nations by the national accounts authorities (usually the Central Banks) of a number of Latin American and Caribbean countries.

Thus for the most part, the statistical data on health expenditures used in this section have been taken from the 1978 United Nations Yearbook of National Account Statistics and their composition and coverage, while believed to be the most reliable and comprehensive as yet available from any source, are subject, inter-alia, to the definitions of "health expenditures" used in collating data for national accounts purposes. In general, therefore, they do not include expenditures on environmental sanitation, medical and other academic health education, or nutrition as such expenditures are included under different categories, e.g., nutrition under "food", medical and other formal health education, under "education", etc. The term "public consumption" (usually termed general government consumption in UN terminology) includes all current expenditures for purchases of goods and services by all levels (central, regional, local, etc.) of government. Capital expenditures on national defense are regarded as consumption expenditures. Privatae consumption consists of the value of all the goods and services purchased or received as income in kind, by households and nonprofit institutions such as social security institutes.

Generally speaking, the information available from national account statistics and other similar sources indicate that total national (public and private) health expenditures currently range between 4.0 to 6.0 percent of GDP in most of the region's developing countries. In several countries, frequently those which experienced the most difficulties in re-stimulating their overall national economic growth in the latter half of the 1970's, it would appear that total national health expenditures did not constitute even 4.0 percent of the GDP by the end of the decade. In a few other countries, however, the proportion of national resources devoted to health was very similar to that prevailing in many of the world's major industrialized countries, reaching around eight percent of GDP. But from the available data, it would appear that only in a handful of countries did the total national (public and private) health expenditures actually increase as a proportion of GDP Panama, for example, is one of the few countries in the region which, despite a flagging economy, has significantly increased the share of national resources devoted to health, from 5.0 percent of its GDP in 1960, to 6.3 percent in 1970, to 7.8 percent in 1976. (Table 2, page 137).

In many countries throughout the Region the health sector, after having experience significant increases in the 1960's, appears to have been allocated a shrinking share of total public funds during the past decade. For example, in 1970, the health sector accounted for 19.7 percent of total Venezuelan public consumption expenditures, by 1975, its allocation had declined to 13.5 percent, and by 1977 to 12.6 percent. The national accounts of countries with very diverse economies reveal that this phenomenon was by no means limited to countries experiencing similar developmental and growth problems as it can be seen in data pertaining to such countries as Bolivia, Honduras, and Peru. But although this trend appears to have been widespread, it was by no means universal throughout the region and in one or two of the smaller Caribbean countries, the proportions of public consumption expenditure allocated to the health sector, after growing rapidly during the 1960's, have remained remarkably stable in the 1970's. In the 1960's, for example, the British Virgin Islands allocated around 15 percent of their total public expenditures to health; by 1970, the proportion had increased to 19.1 percent and it remained virtually the same in 1977, 19.2 percent. Nevertheless, the stability of financial resource allocations is not one of the more salient characteristics of publicly financed health services in Latin America and the Caribbean and, in this sense, it is somewhat misleading to talk about trends because in the vast majority of countries, for which data are available, public health expenditures, in the short run, appear to be highly erratic, with significant increases and decreases from one year to the next. These financial oscillations, which frequently wreak havoc in the implementation of established health plans and the operation of ongoing health programs, are sometimes a reflection of changing economic conditions, as well as the manner in which budgetary resources are expended within a country, but frequently however, they reflect rapid changes in the political priority assigned to the health sector as a whole and its component parts.

TABLE 2

PANAMA: CURRENT HEALTH EXPENDITURES AS PERCENTAGE OF PRINCIPAL NATIONAL FINANCIAL VARIABLES 1960-1976

	1960	1970	1975	1976
Public expenditure for health as percentage of total public consumption expenditure	21.1%	24.1%	25.7%	27.3%
Private expenditure on health as percentage of total private consumption expenditure	3.3	4.6	6.1	6.1
Total public and private expenditure on health as percentage of Gross Domestic Product 1/	5.0	6.3	7.6	7.8

Source: United Nations, Statistical Yearbook of National Accounts, 1978.

1/ These percentages represent only current health expenditures; the figures would be somewhat higher if capital expenditures were included.

Whereas, in the 1970's , the growth in publically financed health expenditures appears to have been sluggish and to have frequently lagged behind overall economicy growth, in many countries private (including social security) health expenditures have tended to increase or remain relatively stable in terms of their share in overall private consumption outlays. In El Salvador, for example, private health expenditures represented 3.7 percent of total private consumption expenditures in 1960; by 1970, their share had grown to 4.4 percent, and remained the same proportion in 1975. Although in overall monetary terms, this increase or relative stability in private health expenditures has in a number of countries helped alleviate or even compensate for the decline in total government health expenditures, it is difficult to generalize about their effect on the health status of the populations of these countries. It is widely believed that the bulk of private health expenditures in developing countries are accounted for by social security institutions and the relatively more afluent citizens of the larger urban communities. Recently, however, a number of in-depth country studies undertaken in Africa and Asia have indicated that rural and less affluent citiziens who are not members of social security systems also allocate significant shares of their incomes, either in cash or kind, to the purchase of health goods and services. The fragmentary information that exists concerning a few Latin American and Caribbean countries also indicate that the rural populations of these countries devote a considerable share of their income to health, particularly the purchase of pharmaceutical products. It remains to be clarified, however, how much of this private demand for health goods and services is created by personnel employed in the public sector. With one or two notable exceptions, private health expenditures appear in most countries; to have been less volatile and less subject to erosion during rapid reversals in overall economic conditions than are public health expenditures. This fact coupled with their very magnitude has recently prompted health officials at the decision making level to pay much more attention to these expenditures. Table 3 indicates the range in the magnitude of private health expenditure in relation to: total National Health Expenditure, Public Health Expenditure, and GDP in three Latin American countries and, for comparative purposes, the United Kingdom, Sweden and the United States. (See page 139).

As mentioned earlier, it is believed that, in a number of countries throughout the Region, if a significant share of the financial resources which are now expended on health in the private sector could be more effectively organized and utilized, this could have profound implications for the attainment of Health for All by the Year 2000.

For example, increasing the coverage and effectiveness of publicly financed health services does not necessarily imply the allocation of a substantially increased share of national resources to the health sector. It can imply the reallocation of resources and changes in financial flows within the health sector (e.g., from private to public).

TABLE 3

PRIVATE HEALTH EXPENDITURE AS A PROPORTION OF: TOTAL NATIONAL HEALTH EXPENDITURE, PUBLIC HEALTH EXPENDITURE, AND GDP

Country	Year	Currency (millions)	Health Expenditure 1/ Public Health Expenditure	Private Health Expenditure	Total Health Expenditure	Private Health Expenditure as % of Total	Total Health Expenditure as % of GDP
Honduras	1975	Lempira	46	95	141	67.0	6.7
Panama	1976	Balboa	85	71	156	45.0	7.8
Venezuela	1977	Bolivar	2,886	3,152	6,038	52.0	4.0
United Kingdom 2/	1976	Pound	5,734	817	6,551	12.0	5.3
Sweden 2/	1977	Crown	19,940	8,547	28,487	50.0	8.1
United States of America 2/	1977	Dollar	21,247	142,308	163,555	87.0	8.7

Source: United Nations, Statistical Yearbook of National Accounts, 1978.

1/ These figures would be somewhat higher if capital investments were included.

2/ The United Kingdom, Sweden, and the United States are included for the purpose of comparison.

But, to do this, health administrators and planners need comprehensive information concerning the real nature, magniture and opportunity cost of all the health goods and services consumed by all their citizens.

Inflation was another major factor negatively affecting expenditures for health services throughout the past decade. Thus, while in most countries in the region when measured in current prices health outlays appeared to be increasing, in some countries when measured in constant prices, to offset the higher inflated prices of health goods and services, health expenditures actually declined both in per capita and absolute terms. This trend was particularly marked in the latter part of the decade. For example, in one Caribbean country private per capita health expenditures declined by some 40 percent in real terms between 1974 and 1977.

Although data on trends in overall government and private allocations for health care such as the unrefined and fragmentary data discussed above are helpful in reviewing general national and international tendencies, by themselves they provide an inadequate basis for drawing any substantial conclusions and need to be supplemented and complemented with additional information.

Even among countries with approximately the same levels of per capita income, those countries which devote larger shares of their GDP to health do not necessarily provide their citizens with more or better health services than those countries which appear to spend less.

Relative prices of health servides vary greatly from country to country and even within different regions of a single country. In some countries physicians and other health personnel are far more abundant relative to the total population than others. Physicians and other professional health personnel earn considerably higher salaries insome countries than in others. Some countries have more hospital beds and other relatively costly facilities, while in other countries health centers and other low cost out-patient facilities predominate. What is always important for health planners and health administrators to bear in mind is that current decisions concerning the education and training of health personnel and those concerning capital investments in new health facilities will largely determine the scope, cost and appropriateness of the health care provided 20 or more years in the future.

During the past decade, it became increasingly acknowledged throughout the Region that the lack of comprehensive and reliable information concerning the overall level of financial resources currently being devoted to the health sector is considerably hampering attempts to reorganize and revitalize national health care delivery systems and develop realistic programs for the attainment of "Health for All by the Year 2000". In most countries, health officials can, at best, provide only very approximate guess-estimate responses to such fundamental questions as "How much will it cost and where will the fianncial resources come from to attain this goal?"

Officials in many ministries of health frequently only know the size and composition of their own health budgets and, through no fault of their own, know very little about the financial resources being devoted to health by the myriad of service providers and funding sources within their country. Moreover, it is not unusual for the ministry of health to account for, or have jurisdication over, less than one tenth of total

national health expenditures; nor, as was shown above, is it unusual in Latin America, for the private sector to account for well over half of all the national resources devoted to health. Thus, largely due to the lack of information concerning total national health expenditures and their sources of finance, the national health plans and programs promulgated by a number of countries are similar to icebergs in that only a small proportion of national health resources are visible and taken into account.

In view of the widely perceived need for more comprehensive and reliable information concerning the costs and sources of finance of health services. It is hoped that in the very near future the governments of many Latin American and Caribbean countries will mount a renewed effort to develop a viable and more resilient system for collating and classifying financial allocations to the health sector and that they will do so within the framework of National Accounting Systems.

Besides providing more reliable and timely information on a continuing basis, this would ease the responsibility which now frequently and inappropriately falls on the ministry of health. Hopefully, having continuing and routine access to such information will enable health administrators and planners to make more informed, timely, and comprehensive decisions concerning alternative resource allocations and alternative sources of finance. In this respect, another advantage which will stem from improving the coverage and treatment accorded the health sector within national accounting systems is that it will provide a better opportunity and clearer perspective for reviewing health sector resource allocations in the context of resource allocations for a variety of other basic human needs, and complementary social programs, such as education, housing, nutrition, etc. The use of a uniform system throughout the region would also promote cross country comparative analyses and enable health administrators and planners to appraise their national health programs in a broader context.

By itself, such information will not provide answers to the vast array of questions that need to be ansered in the context of developing strategies for the attainment of "Health for All by the Year 2000." It will, however, constitute a very significant contribution towards this goal and provide a great deal of urgently needed information on a key variable, if not the common denominator, inherent in most of the problems which need to be resolved in order to ensure the development of efficiently restructured and expanded health delivery systems. In brief, it will help lay the groundwork for transforming "Health for All by the Year 2000" from an architectural concept into a set of builder's blueprints.

1.11 INTERNATIONAL COOPERATION

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During the seventies, technical cooperation reasserted itself in the Americas as a response to real needs defined by the countries, as an aid to the development of appropriate technology, while at the same time fostering the strengthening of their own capabilities so that lasting benefits might be obtained.

Another characteristic of the decade was the identification and discussion of major world problems of interest to the Third World in particular. Notable examples of this trend were World Conferences on the Environment, Population, Agrarian Reform and Rural Development, Human Settlements, Water, the United Nations Conferences on Technical Cooperation among Developing Countries, Primary Health Care, and the International Year of the Woman.

In the Americas, there were the III and IV Special Meetings of Ministers of Health held in 1972 and 1977, respectively.

This period saw changes in the policies and approaches of the international technical and financial cooperation agencies.

The United Nations Development Program (UNDP) allocated through PAHO to the health sector in the Americas little more than $35 million for financing programs in the areas of the development of health services, disease prevention and control, the environment, human resources and animal health, which represents five percent of the total cooperation program. The resources available to UNDP followed an ascending curve until 1975, and then declined in the second half of the decade. Efforts were made at joint proramming among the Countries, the UNDP and the International Executing Agencies. Novel operating arrangements were also encouraged, such as the execution of programs by the Government with the technical cooperation of the agencies.

The United Nations Children's Fund (UNICEF) substantially changed its policy to become the executor of its own programs, which it shifted toward basic services for children on a multidisciplinary and multisectoral basis. In keeping with this priority UNICEF joined with the World Health Organization to cooperate with the Governments in delineating and promoting the strategy of primary health care.

The United Nations Fund for Population Activities (UNFPA) revised its policy of collaboration with the countries on regulation of the explosive growth of their populations, recognizing the importance of addressing such measures within the framework of maternal and child care in coordination with PAHO/WHO. Several countries in the Americas received funds totalling approximately $102 million during the period 1971-1980.

As an outcome of the World Conference on the Environment, the United Nations Environment Program (UNEP) undertook technical cooperation projects in the countries of the Americas in collaboration with PAHO/WHO and the Economic Commission for Latin America, for the control of environmental pollution, and toward the attainment of the goals set by the United Nations Water Conference.

The Food and Agriculture Organization (FAO) and the World Food Programme (WPF) expanded their activities in the area of nutrition, and channeled foods into food supplement programs aimed at vulnerable population groups.

The International Labor Organization (ILO) engaged with PAHO/- WHO in joint activities in the area of occupational health, rehabili- tation and social security.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) promoted far-reaching changes in its cooperation policy, but its participation in manpower training for health in the countries of the Americas has been limited.

Regarding the financial cooperation agencies, the Inter-American Development Bank (IDB) channeled resources to finance the construction of aqueducts for large and intermediate-size cities and for rural areas. Between 1960 and 1980 it granted more than $1,200 million in loans to help increase the population with access to potable water from 65 million to 198 million persons. It also made loans for infrastructures on the programs for the extension of health services in several countries and for the textbooks program. All these programs claimed 9.2% of the total lent by the IDB. Animal health is another program for which the Bank provided substantial resources. For the control of foot-and-mouth disease, the IDB had approved by the end of the seventies more than $107 million in operations that mobilized local contributions in excess of $400 million. At the end of the seventies the IDB decided to channel 50% of their resources into social programs benefitting the low-income groups. This involves the sponsoring of projects that generate employment and improve living conditions by assuring access for the population to basic services.

The International Bank for Reconstruction and Development (IBRD) adopted the policy of incorporating some health and birth-control activities into regional development projects, particularly for rural areas, and recently decided, in addition, to make loans directly for health projects. This broader strategy of granting loans for health programs is one expression of its commitment to alleviate poverty as part of the approach of meeting basic human needs all over the world.

The United States Agency for International Development (USAID) has channeled sizable funds into programs in the fields of agriculture and integrated rural development and into sectoral health and nutritional programs.

The Canadian International Development Agency (CIDA) has cooperated in the provision of potable water supplies in the English-speaking countries of the Caribbean, and has collaborated with PAHO/WHO and other agencies in programs for manpower training and administrative development in the health sector.

Notable among the many private agencies and organizations that made grants and sponsored programs in the countries of the Americas is the Kellogg Foundation, which collaborated with the Governments of the Americas and PAHO in establishihg the Latin American Center for Educational Technology and Health (CLATES), the Latin American Program for Educational Development for Health (PLADES), and the Regional Library of Medicine and the Health Sciences (BIREME). It has also participated in conducting programs for the progressive care of the patient and in training in health services, hospital administration, and maternal and child health. It also supported programs at INCAP and CLATES.

PAHO/WHO has directed its cooperation by means of country programming that emphasizes direct participation by the national authorities in the statement of their needs and priorities, and takes into account the contributions made to the sector by other international and bilateral cooperation agencies. While the Governments of the Americas have made substantial progress in health programming, this progress was not systematically reflected in their national socioeconomic development programming. However, the countries have channeled substantial amounts of external resources into the financing of the construction of major infrastructural work in large and intermediate-size cities, particularly in the water subsector and, to a lesser extent, for the extension of health services and the training of human resources.

During the seventies regional health programming was based on the Ten-Year Health Plan for the Americas. The evaluation of that hemispheric effort and the analysis of, and proposal for, national and regional strategies will provide a basis for determining the future measures needed to attaining the goal of Health for All by the Year 2000. In this undertaking PAHO's coordination with the Economic and Social Commission for Latin America (ECLA) will continue to be of vital importance.

There is an increasingly discernible need for far-reaching change in health policies and strategies and, by extension, in the structure of international technical and financial cooperation. This became apparent with the decision by the Governments to extend the coverage of their services, and their adoption of the strategy of primary health care, which calls for an intersectoral approach. In this context, international cooperation requires a more comprehensive frame of reference.

Moreover, there has been a tendency in the UNDP and other agencies to reduce funding for international cooperation to Latin America in favor of other regions of the world. Several agencies are reordering their priorities toward food production, scientific and technological development, and the solution of energy problems. These developments will require in the health sector a reevaluation and reorganization of both technical and financial cooperation for the future, and gives the approach of technical cooperation among developing countries utmost significance.

While the primary responsibility for Technical Cooperation Among Developing Countries (TCDC) rests on the countries themselves, the support of the developed countries will still be needed. For TCDC to reach its full potential there is need of a firm political commitment by the developing and developed countries. It is essential that Governments include in their national plans a clear-cut policy on TCDC that will be reflected in their national health programs. The conclusion of subregional agreements in the economic and health sectors must reinforce this trend in the coming decade. Economic Cooperation Among Developing Countries (ECDC) is intimately bound up with TCDC.

We should note here the importance being acquired by the subregional economic integrationg groups of Central America and Panama, the Andean countries which are parties to the Cartagena Agreement, the Caribbean Commuity (CARICOM), and the Conference of Foreign Ministers of the Countries of the Rio Plate Basin. These processes have gone forward concurrently with others for cooperation in the health sector as in the case of the Andean Ministers of Health, that of the Ministers of Health of the English-speaking countries of the Caribbean, and the Meeting of Ministers of Health of Central America and Panama. In recognition of this, the international technical and financial cooperation agencies have considered the subregional framework for their collaboration in intercountry programs.

The solution of many problems related to the production of foods and equipment, drugs and biologicals, the control of their quality, aspects of their marketing, technological development and research, some aspects of human resources, and the dissemination of experience and information, will be substantially based on the joint cooperation of the developing countries.

Because of the characteristics of the health problems they will be facing, it is essential and urgent that the Governments give greater stress to analyses of the sector's external cooperation requirements, and that they clearly define their priorities and weigh the advantages of, and the alternatives to, the various sources of cooperation in relation to the policies of the donor agencies themselves. On the basis of these analyses, the Member Governments will have programmed their external cooperation on an intersectorally coordinated basis and in accordance with the national policies and strategies currently in effect. They have also established machinery for the evaluation and control of that cooperation.

These national analyses, evaluations and programs for cooperation will constitute the key to the reorientation of the cooperation policies and practices of the agencies of the United Nations family, the Pan American System, and the bilateral and the private agencies.

TECHNICAL AND FINANCIAL COOPERATION IN HEALTH AND ENVIRONMENTAL SANITATION
BY SELECTED MAJOR SOURCES OF FINANCE

LATIN AMERICA AND CARIBBEAN

(IN US MILLIONS)

	PAHO REGULAR	WHO REGULAR	PAHO/WHO OTHER FUNDS	UNDP	UNFPA	UNICEF	KELLOGG	IDB*	IBRD*	USAID*	TOTAL
1970	13.8	6.7	5.5	1.9	.6	2.4	.9	30.3	18.5	-	80.6
1971	16.1	7.3	5.7	2.8	-	4.8	1.4	50.0	124.0	-	212.1
1972	17.8	8.4	7.1	3.0	1.4	3.5	1.6	59.2	9.9	19.1	131.0
1973	19.6	8.9	7.5	3.1	3.3	2.9	1.4	53.6	99.1	49.0	248.4
1974	21.5	9.8	7.5	3.8	10.9	3.5	1.8	93.0	59.2	33.7	244.7
1975	23.6	10.6	7.7	6.3	14.2	4.6	1.5	111.5	42.0	13.9	235.9
1976	26.7	11.8	10.7	5.1	17.3	2.8	2.4	128.6	137.2	66.2	408.8
1977	28.9	13.0	13.3	3.3	13.3	3.6	2.9	226.6	62.7	33.4	401.0
1978	31.2	14.6	14.7	2.8	16.4	4.1	3.8	153.4	218.4	11.8	471.2
1979	33.7	16.4	19.4	3.0	24.7	3.0	4.3	132.6	172.8	44.3	454.2
TOTAL	232.9	107.5	99.1	35.1	102.1	35.2	22.0	1,038.8	943.8	271.4	2,887.9

*IDB, IBRD and USAID cooperation is fundamentally by loans.

It was not possible to obtain information from all sources covering the complete decade and, therefore, a number of significant governmental and non-governmental sources are not shown in this table, e.g., with the exception of US/AID no other OECO/DAC member's cooperation is shown. It is estimated that excluding resources received from the WFP, total external cooperation for health and environmental sanitation in Latin America and the Caribbean amounted to over $560 million in 1979. This sum was almost evenly divided between health and environmental sanitation activities. The reason for the apparently wide annual fluctuations in the amounts of cooperation received from some of the sources shown is largely a reflection of the inclusion of funds for water supplies and sewage systems. Committments for these and other capital investment projects tend to be less frequent and more bunched up that funds for basic health care, population, and nutritional activities.

II. STRATEGIES FOR ATTAINING THE GOAL OF HEALTH FOR ALL BY THE YEAR 2000

2.1 THE GOAL: HEALTH FOR ALL BY THE YEAR 2000

2.1 THE GOAL: HEALTH FOR ALL BY THE YEAR 2000.

The Member Governments have agreed that the principal social goal in the coming decades should be "The attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life," and have stated that "primary health care is the key to attaining the target of Health for All by the Year 2000, as part of overall development and in the spirit of social justice."

They also recognize that primary health care requires complementary strategies for its full application, in particular: the development of national health service systems and their reorientation to increase the coverage of rural and urban population groups currently receiving inadequate or no care at all; the organization and participation of the community in improving overall well-being; the development of intersectoral linkage, research, and technology; the production and supply of critical inputs; the training of human resources; and the definition of strategies for financing health care systems and for cooperation among countries.

The decision of the Governments of the world and those of the Region of the Americas is clear. However, the magnitude and complexity of this undertaking calls for a careful analysis of its implications in order to define and orient the national and international efforts required and to translate them into effective and efficient actions consistent with that purpose.

The main feature of this goal is its comprehensiveness, health being regarded as one of the major components of each community's level of well being. "Health for All by the Year 2000", is perceived as a vital part of "a socially and economically productuve life." Accordingly, in this approach health is no longer a matter of "disease or lack of disease" but rather the social outcome of national development and progress which, in turn, is expressed specifically in a given style (level and quality) of life.

Attainment of this goal calls for far-reaching and significant social and economic changes, as well as a revision of the concepts on which the orientation and organization of the national health systems are based. This revision requires a careful weighing of the means and the sequence of actions required to bring about these changes over a relatively short period of time.

The goal of Health for All should be considered not only as a desired objective but also as a dynamic factor essential to the process of change. Its potential lies mainly in the immediate possibilities it offers for determining the scale of problems and guiding the definition of policies, facilitating the design of appropriate strategies, developing actions and guidelines, and promoting the establishment and mobilization of the resources needed for applying these strategies.

The interpretation of the goal as the conceptual and basic instrument for the "take-off" of the process lends vitality and realism to its social purpose. In the context of each national reality this process will, in and of itself, gradually modify and enrich the initial orientations and contents.

2.2 THE PROBABLE SOCIO-ECONOMIC SCENARIO IN WHICH THE STRATEGIES WILL BE APPLIED

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2.2.1 DEMOGRAPHIC ASPECTS

The distinguishing features of the probable demographic scenario for Latin America and the Caribbean are rapid absolute growth and a very high level of urbanization, marked by the increasing concentration of the urban population in megalopoles.**

The total population will double in the period 1970-2000 from 280 million to more than 600 million inhabitants. The urban population will triple in the same period, from 160 to 450 million, and the rural population will increase in absolute terms but at a much slower rate, from 120 to 150 million inhabitants.

People living in cities with 5 million inhabitants or more will number 130 million, i.e., 22% of the total population; 12% of the total population will be living in cities with more than one million but less than five million inhabitants; and 16%, in cities with 100,000 or more but less than one million. Overall, the urban population will account for 75% of the total population.

Parallel to this phenomenon of growth and concentration, a strong downward trend in fertility and an increase in life expectancy at birth are expected to occur. By the year 2000, only four countries are expected still to be in the fertility category of five to six children per female during her reproductive lifespan, 10 countries are expected to be in the category of more than three but less than five, and six countries in that of one to three children category.

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*This section refers solely to Latin America and the Caribbean. The United States and Canada are not included in this comparative analysis because the levels of economic development, expectations, and material well-being of these two highly industrialized countries differ markedly from those of the rest of the Americas' developing countries. Data for this section have been taken from various publications of the United Nations, CELADE, ILO, and ECLA, and from "Developments in the Health Sector in the 1971-80 Decade" (Chapter I).

**See Demographic Evolution (Chapter I), which contains information on the United States and Canada in addition to the countries of Latin America and the Caribbean.

Similar trends are observable in life expectancy at birth. If the assumptions on mortality trends hold true, by the year 2000, 28 Latin American and Caribbean countries are expected to enter the life expectancy category of 65 years or more, and of these, 20 will reach an average life expectancy at birth of 70 years or more. Only one country in the Region is expected to have a life expectancy at birth of under 60 years.

Concerning the age structure of the population anticipated for the year 2000, it is predicted that 220 million people or 37% of the population will be under 14 years of age, and the bulk of the population, 350 million or 58% of the total, will be between 15 to 64 years old, the most economically productive years of life. However, the estimated population 45 years and older will number some 100 million, or 17% of the total.

The large contingent of the population in the economically active age groups and the increase in the more mature age groups (45 and over), together with the phenomenon of urbanization, will engender a new range of problems in applying primary care strategies in most countries.

2.2.2 ECONOMIC AND SOCIAL ASPECTS

The developing countries of the Region will doubtless continue their efforts to achieve high rates of economic growth and productivity in the coming decades. They will do so for a variety of well-known reasons, including the substantial growth of the economically active age groups, which will demand the creation of a considerable number of new sources of employment.

Analysis of the studies available on the subject* supports the prediction that the New International Development Strategy (NIDS) for 1981-90 will result in a 7.5% yearly growth in the Region's overall Gross

*ECLA studies on the New International Development Strategy (NIDS), include, in additon to estimates of goals and objectives for economic growth, proposals on the social purpose that should guide economic development; the social changes required, and an improvement on the distribution of income; objectives and profiles of well-being of the population and eradication of extreme poverty, as well as proposals on the protection of the environment and the elimination of "privileged consumption".

Domestic Product (GDP). The agricultural sector is projected to grow by 4% and the industrial sector by 9%; investments will absorb about a quarter (23%) of the gross domestic product. Imports will grow somewhat faster than the GDP, which will call for a strong expansion of exports to maintain the balance. Exports are one of the keys to the model and require a restructuring of the international economic system designed to expand and diversify access to the markets of the developed countries. An increase in trade among the Latin American countries and with other developing regions is also considered crucial.

The increase in agricultural production will be strongly influenced by domestic demand for food and industrial raw materials and by export requirements. To that end the productivity of land already under cultivation will have to be increased and the agricultural frontier extended. There will be sharper competition for arable land both for the production of food for domestic consumption and production to meet the demands of industry and the export market. Energy requirements will double, and the use of oil can only be reduced by rigorous conservation measures, the elimination of "privileged consumption", profound sectoral and technological changes, and the use of other energy sources.

If certain trends apparent in recent decades are not substantially modified, the resultant type of economic growth may adversely affect the attainment of the explicitly stated Government goals of eliminating extreme poverty, reducing inequalities among various population groups, improving income distribution, and enhancing the quality of life. Modification of these trends will require vigorous and substantive compensatory policies in which the social sectors and regional planning must play a primary role.

The most likely scenario for the Latin America and the Caribbean as a whole will be one of intense urban concentration and rapid industrialization, with a trend towards increasing heterogeneity within the countries and throughout the Region. The economically stronger countries will diversify their economies by increasing the production of capital goods, and in their urban centers standards of living associated with relatively high levels of development will exist side by side with relatively low standards of living. In some economically weaker countries, the diversification limits of their productive sector may rapidly be reached, and even a semblance of the standards of living enjoyed by the industrialized world will be attained by only a very limited segment of the population of most of the countries.

Countries now on the road to advanced urbanization must make every effort to sharply expand their productive activities and urban infrastructure. If current development trends persist in the urban and rural areas of these countries, the gap in the standard of living between urban and rural population groups will grow even wider, mainly because of the sharp differences in productivity and, therefore, in income.

The pace of migration from the countryside to the cities will have a particularly disruptive effect unless the countries manage to bring about an adequate spatial redistribution of population and income. The solution no longer lies in ways of slowing down the rural-to-urban migration, but in viable policies for guiding it, based on the establishment of networks of employment and population centers.

Opportunities for non-farm investment in the rural areas, such as hydroelectric and mining projects and the off-farm processing of agricultural products, should be taken advantage of to create employment and population centers that would help to create a rural-urban continuum. Analysis of, and control over, any potentially harmful environmental impacts of such undertakings should be basic considerations. Agricultural development policy will continue to be strongly influenced by the requirements of industrial development and the organization and production patterns of agro-industry. Integration of the countryside into the market will be strongly emphasized, and there will be fewer cases of economic isolation. Urban-rural relations will play an increasingly larger role in production and personal services.

The demands of industries and the cities will continue to exert pressures for low farm prices, with the attendant need for a significant increase in farm productivity and consequently in agricultural modernization and mechanization. The number of temporary rural workers will increase and the rural population with land of its own and the opportunity to engage in subsistance farming will sharply decline, while what is known as the "informal" sector will increase in the cities.*

The problem of unemployment will probably persist in the coming decades. Although the anticipated annual growth of 3% in the potentially

*The "informal" sector is made up of persons who are not in structured productive employment and who constitute the bulk of the population subject to underemployment or hidden unemployment.

economically active population may be absorbed without creating major problems of open unemployment, the problem of hidden unemployment, which is the major component, will still continue. Open unemployment and disguised unemployment together with national income distribution problems will make it very difficult to achieve the aims of eliminating extreme poverty and decreasing social inequalities. Failure to correct the observed tendencies of the past decades would widen the gap between the groups that succeed in incorporating themselves into the "modern" sector of rural and urban production and those that remain bypassed by development in the "informal" sector and those confined to limited subsistance conditions.

The inequalities between human groups are also reflected in the important problems of malnutrition and undernourishment. It is estimated that 65% of the children under five years of age are suffering from some degree of malnutrition. In the past decade most of the countries made significant headway in achieving an average national level of food supply sufficient to meet the basic nutritional needs of all their population. There is abundant evidence, however, that the food consumption of the disadvantaged groups continues to be 20% less than the minimum acceptable level. It is possible to infer that competition between the use of land for the production of staple foods for domestic use and its use for the satisfaction of the needs of industry and exports negatively influences the availability of food. It is, therefore, urgently necessary to define and implement food policies that will provide the population with a sufficient amount of good quality basic foods. If such policies are not formulated and implemented, the food situation of vast sectors of the rural and urban population will tend to grow worse, owing to both the competition for available land between industrial and export requirements and production for domestic use and the growth and distribution of the population and inequalities in family income.

2.2.3 SOME CONSIDERATIONS ON POSSIBLE DEVELOPMENT STRATEGIES.

Analysis of the evolution of the urban and rural situation and of the outcome of the policies instituted to change this situation confirms the futility of establishing strategies and applying solutions limited only to the rural habitat and continuing to attack the urban problems with conventional approaches and methods. If present trends continue, by the year 2000 half the urban population will be living in shanty towns under highly precarious conditions. The available studies on the probable cost of solving the problem by applying conventional approaches indicate that it would be far beyond foreseeable

financial possibilities. "To provide housing for the additional urban population expected by the year 2000 based on the present minimum acceptable standards, would cost about $400 billion, and the additional cost of rehousing the population now living in substandard conditions and replacing existing housing and utilities at the end of their useful life would require an additional $110 billion."*

The apparent impossibility of resolving the urban problems with the solutions already mentioned will make it necessary for the Governments to review the various alternatives experimented with during the past decade, to select only those considered useful in the short term and to combine them with new, more drastic, and longer-term types of action which are feasible, given the special political, economic, and social characteristics of each country.

The magnitude of the urbanization phenomenon, together with the above-mentioned characteristics of the anticipated economic growth and its ability to generate employment in the urban and rural areas indicate that a substantive strategy might be one of regionally based development. This type of development should be aimed at creating intermediate communities around centers of production that will form part of the urban-rural continuum and at fostering not only economic growth but also better integration of the continuum; redistribution of the population, including both excess rural and urban populations; a rise in the standards of living; an a reduction in inequalities.

The alternative of creating intermediate population centers as one of the substantive solutions to the serious problems of the present and anticipated future urbanization is consistent with the high degree of dynamism that the countries will need to achieve in the agricultural sector, which implies diversified and increased agricultural production, as well as maximum productivity. Such a solution would help to strengthen the trend toward agro-industrialization, which calls for strategies based on a multisectoral approach at both the regional and the national level. It will, therefore, be necessary to combine and increase non-farm activities in the rural areas, such as hydroelectric and mining

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*Ligia Herrera, Fernando Gatica, and Ricardo Jordán. "Consideraciones sobre el Proceso de Urbanización, la Concentración y la Dispersión en la América Latina: Situaciones Críticas". CELADE-PISPAL, 1975.

projects, and agroindustry complexes, and to develop units to support such production. It will also be essential to provide people with services whose spatial, demographic, and functional coverage is wider than that currently provided by productive enterprises. In this regard, the experience of regional development corporations merits consideration.

The problem of generating jobs in urban and rural areas should be examined concomitantly since any strategy adopted for agricultural development will produce a surplus of rural labor, which in turn will affect the employment capacity of urban areas.

Experience has demonstrated that it is imperative to prepare national plans for regional development that provide the requisite frame of referance for regional programming, including the selection and location of projects, and to assure that they are consistent and compatible with national economic and social development plans. Any regional development strategy is doomed to failure or to its objectives being distorted if the policies for implementing it do not satisfy this last-mentioned requirement. Experience also teaches that it is very difficult for any "strategy of change" to be applied successfully unless it envisages changes in the value system and the power structure of the society concerned and a radical revision of the style of development.

From this standpoint, the design of any strategy aimed at improving urban and rural conditions and reducing inequalities should include:

a. A definition of the type of national society desired.

b. Analysis and evaluation of the conflicts between urban and rural interests and the possibilities of reconciling them.

c. Determination of rural and urban types of habitat and life-style, as well as the characteristics of participation at the national, regional, and local level, and analysis and definition of the urban and rural power relationships.

d. Spatial redistribution of the population and selection and adoption of production and service technologies compatible with the national policy for preservation and exploitation of resources, ecological limits, and decisions on styles and levels of living of the population.

e. Availability of and access by the entire population to a sufficient amount of good quality food.

f. Creation of jobs in urban and rural areas whose average productivity and annual remuneration is acceptable.

g. Provision of social and environmental services (education, health, housing, water supply and sewerage, recreation, and the like) consistent with the level of living defined, and guaranteed access to them for all the people, so as to contribute to achievement of the objectives of equity.

2.2.4 SOCIAL SECTORS*

In the type of development expected, the role of social services is fundamental. The social inequalities rapid economic growth will tend to create must be overcome by means of corrective policies that make vigorous use of social services for this purpose.

The principal responsibility of the social services in this regard is to help to improve the profiles of well-being of the population, and in particular to increase the opportunities for disadvantaged groups. Accordingly, priority allocation of real and financial resources to social services is justified if they enhance the quality of life and reduce inequality. A social service policy should be one aspect of a broader policy on distribution of population, organization of production and consumption, distribution of and increase in income and establishment of population centers organized in such a way as to facilitate phased access to social services.

The question of real sources of financing is basic and the possibility of producing some redistributive effect through social services depends not only on the structure and magnitude of the services and the sectors of the population that have effective access to them, but also on how they are financed.

In this context, a clear definition of the objectives of the social services is crucial. It is necessary to decide whether the objective is to provide disadvantaged groups with access to services that are to be available to all on relatively equal terms, or to provide "special services" for certain groups.

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*Health, education, housing and other public services.

2.3 IMPLICATIONS OF THE SCENARIO FOR THE HEALTH GOAL AND STRATEGIES FOR ATTAINING IT

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The essence of the goal of Health for All by the Year 2000 is improvement of the quality of life, reduction of inequalities and elimination of extreme poverty. The strategies for achieving this goal will accordingly have to take into account certain features of the economic, social and demographic scenario in which they will operate that frequently form major constraints.

In the first place there is the problem of a large mass of population heavily concentrated in large cities, with a high percentage of men and women in the economically active age groups, a significant proportion of children and young people, and a considerable and growing number of persons aged 45 years and over. This mass of humanity will live in a hostile physical and social environment and be undernourished. In addition, the decision to achieve and sustain rapid economic growth will mean that, while such growth may well go some way toward solving the employment problem, it will also tend to increase disparities in income, life style, and quality of life between the urban and the rural areas, and between different social groups. This will oblige the Governments to step up their efforts to correct the negative effects through various combinations of policies, in particular policies aimed at the redistribution of income and the compensatory role of the social sectors.

This social profile will be reflected in the structure and magnitude of the health problems to be dealt with. In all probability the structure of mortality and morbidity will change drastically. During the last five years of this century, 20% of deaths are expected to be due to tumors and 50% to cardiovascular diseases. However, mortality and morbidity from diarrheal and acute respiratory diseases, intensified by malnutrition and an adverse environment, though they may decline in relative terms, will continue to decimate the deprived populations of the cities and countryside It will be possible to control diseases that are preventable by vaccination and those that are most widely endemic, at the cost of considerable expenditures in efforts and funds. But it will be just as urgent to meet new needs in chronic and degenerative diseases, mental health, accidents, and other needs, which will loom larger in the profile of this probable pathology. The prevention and control of the most important risk factors and the promotion of changes in life-styles and in their associated patterns of behavior will merit special consideration in defining national and regional primary care strategies and programming their contents.

The efforts of the health sector, dovetailed into the rest of the economic and social sectors, must be aimed at correcting inequalities, redistributing income, and eliminating extreme poverty. The sector will consequently have to step up its endeavors to provide the disadvantaged with access to its services and to satisfy their needs, while at the same time carefully designing its sectoral and institutional organization and its financing strategies to ensure that the services it provides will really entail a positive redistribution of the fruits of economic growth. It will also have to prepare itself to manage the resources allocated to it in such a way as to guarantee the maximum possible efficiency and effectiveness in achieving the desired impact on health. All this implies not only the fullest development possible of its management capabilities but also a permanent search for more efficient and appropriate technologies and procedures.

Moreover, the variety of needs, health problems, and aspirations arising from the particular age structue and the different life styles and opportunities will call for a mix of approaches and solutions that will have to be harmonized and meshed with great care if their viability is to be ensured, the development of inequalities prevented and the impairment of fundamental aims averted.

This will call for great flexibility in the contents and approaches to primary care, which usually focus on the solution of problems characteristic of the underprivileged rural groups devoted to subsistence agriculture.

Acceptance of these solutions by the urban population will be strongly influenced by the co-existence of different levels and styles of living, mass communications, and knowledge of the existence of institutions and resources of a certain degree of sophistication. The need to tailor the approach and contents of primary care also holds true for the urban areas, where its characteristics of production will create different situations for human groups that will be reflected in different mixes of needs and aspirations.

Consequently, community organization and involvement --a prerequisite for Primary Care-- must take into account the special features of the social and power relations of urban population groups and of the new groups that will come into being in the rural areas.

Primary care, the fundamental strategy for attaining the Goal, together with the components of that strategy, will therefore have to be designed in such a way as to take into account the diversity and dynamics of the problems and of the circumstances of the different social groups. This is a complex but unavoidable task that will call for a major effort by each individual country and the full cooperation of all the countries.

2.4 EXPRESSIONS OF THE GOAL

2.4 EXPRESSIONS OF THE GOAL

In adopting the goal of Health for All by the Year 2000 as the principal objective of the health sector, the countries defined it in terms of priorities in three areas: human groups, health status and structure, and well-being profiles.

Priority Human Groups

The Governments have stated that the Goal and the strategies for attaining it cover the entire population. Nevertheless, they assign priority to the populations in extreme poverty in rural and urban areas and, within them, to workers and high-risk families, including children under five years of age and mothers. Those countries in which the expected age structure of the population demonstrates an "aging" process also assign priority to the aged. In defining their priorities the Governments have obviously taken into consideration the different degrees of exposure of human groups to the multiple risk factors and the combination of actions, efficacious and viable, that are most efficient in controlling these factors.

Health Status and Structure

Improvement in the health level is expressed in terms of an increase in life expectancy at birth, through a reduction of and a change in the pattern of the mortality it is expected to achieve by revising the prevalent basic pathology, controlling communicable diseases, and eliminating malnutrition. The countries that expect to have a high proportion of adults and older people assigned priority to the control of chronic and degenerative diseases.

Improvement of National Levels of Well-being

The countries recognize that improvement of the national well-being profiles is a prerequisite for attaining the goal of Health for All by the Year 2000. Most of them define the components of these profiles in terms of availability and accessibility of health, education, environmental health, housing and recreational services for the entire population, as well as adequate family income, availability of food, employment, a production and consumption structure aimed at meeting basic needs, and adequate forms of community organization and participation.

Various countries note that basic needs are not an absolute concept, but one that varies according to the cultural patterns and degree of development of a country and evolves with the aspirations of the communities.

The countries state that expanded health services coverage and the provision of safe water and basic sanitation, are the direct contribution of the health sector to the national level of well-being. They also draw attention to the contribution of the sector, together with socio-economic development sectors, to the availability of foodstuffs, the improvement of housing, the ecological balance, and the organization and involvement of the community in its development and well-being.

2.5 PRINCIPAL STRATEGY: PRIMARY HEALTH CARE AND ITS COMPONENTS

2.5 PRINCIPAL STRATEGY: PRIMARY HEALTH CARE AND ITS COMPONENTS

At the International Conference on Primary Health Care, held at Alma-Ata, USSR, in 1978, the Governments of the World adopted the following definition of primary care:* "Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system, bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process."

All the countries of the Region have confirmed that primary care is the principal strategy for attaining the goal of "Health for All by the Year 2000", and are agreed on the following characteristics.

2.5.1 NATIONAL CHARACTERISTICS OF THE PRIMARY CARE STRATEGY

a. Since the Goal is essentially to reduce inequalities between countries and groups of people, this strategy must be valid and applicable to the entire population and not be confined to deprived or excluded segments, even though the satisfaction of the basic needs of these groups is a principal objective. This is why primary health care cannot be viewed as a limited program designed to meet to some extent the minimum needs of people living in extreme poverty.

b. It is regarded as the point of contact with the community for the satisfaction of its basic needs, including health. The development and organization of the community for its own well-being, including the health component, is a necessary condition for the strategy, which calls for a multisectoral appproach in its conceptual and operational aspects.

*See Annex III: Declaration of Alma-Ata, Sections VI and VII.

c. It is regarded as the portal of entry to the health system. It requires that the system be organized to guarantee economic, cultural, geographic and functional accessibility, and that it do this equitably, promptly and efficiently so as to exert the desired health impact on the entire population. To this end it is necessary to restructure the system on the basis of increasing levels of complexity and to develop referral mechanisms and the functional regionalization of the system.

The countries emphasize that the essential conceptual and operational thrust of primary care is to exert the desired impact on the health of populations and to maximize the social efficiency and productivity of the resources allocated to the sector.

The countries acknowledge that a necessary condition for the success of the strategy is a clear-cut national policy, its implementation through a process of "learning by doing" and systematic evaluation, as well as the development of the strategic components that each country has defined in the light of its own socio-economic and health characteristics.

2.5.2 PRIORITY COMPONENTS OF THE NATIONAL PRIMARY CARE STRATEGY

a. Extension of health service coverage and upgrading of the environment

In this component the countries include:

- Definition of the population groups regarded as having priority, and of the combination of programs required for meeting their needs on the basis of their different levels of exposure to various risk factors and of the possible mixes of for their prevention and control activities.

- Programming the expansion of installed capacity, in particular extension of the primary network and the requisite development of secondary and tertiary networks in support of the primary network, and rehabilitaton and remodeling of existing facilities.

- Increasing the operational capacity of the systems and their services, which includes strengthening the sectoral and institutional planning, programming and evaluation process;

. the reorganization of the health sector, including the public and private subsectors and the community system;

. the functional regionalization of the systems on the basis of levels of care, accessibility, referral, supervision and technical and logistic support, the adjustment of functions, technologies, supplies, equipment and personnel, programming and adminsitration of the services;

. administrative decentralization consistent with the national decentralization schemes and national plans for regional development; the development of the administrative and of production monitoring processes, and of productivity, service utilization, and the impact on the level and structure of health; budgetary and financial control; and technological evaluation and development of the information systems for evaluating, adjusting, and monitoring the national processes.

b. Organization of the community to participate in improving its own well-being.

The strategies state that community organization and participation should be developed within the overall national participation scheme. It is emphasized that the community must participate in analyzing its own needs and developing possible solutions and innovations, and in programming, operating, producing and evaluating health services; this component includes the mobilization and use of the community's resources, the training of the community and of individuals to assume their responsibilities for the development of the community health service systems.

c. Development of intersectoral linkage

The purpose here is to involve the health sector fully in the national development process. The emphasis is on its participation in defining national development policies and the plotting of national, regional and local profiles of well-being, on the analysis and solution of environmental problems, on food production and supply, on the elimination of extreme poverty, and on the reduction of social inequalities. Its inclusion in regional development plans and projects is one of the requirements of these strategies.

d. Research and development of appropriate technologies

This component involves the definition of health sector policies and programs that are consistent with the national science and technology policy and the participation of the health sector in determining this national policy. It emphasizes evaluative research, the identification and promotion of technological innovations, and the establishment of coordination arrangments and of programs for national and intercountry cooperation, and also the generation and exchange of information between national institutions and between countries.

e. Availability and production of critical inputs and equipment

It is based on the compilation of basic lists and on the standarization of specifications for essential inputs and equipment and their adaptation to the primary care strategy; the establishment of mechanisms for the control of quality, prices and costs, and the implementation of production, procurement and marketing schemes. The organization and programming of intercountry cooperation is an essential part of this component.

It also regards it as essential to develop machinery for evaluating and coordinating the external cooperation agencies and institutions.

2.5.3 STRATEGIES FOR COOPERATION AMONG COUNTRIES AND SUPPORT MECHANISMS

Analysis of national strategies and of developments in the health sector in recent decades shows that there are crucial problems whose most efficient solution calls for joint action by the Governments, and hence, for the adoption of intercountry strategies and the programming and implementation of the cooperation activities they call for. This analysis makes it possible to identify the following intercountry strategies: joint action on health problems common to several countries, on the development of human resources and critical inputs and equipment, and on technological research and development, all within the framework of Technical Cooperation Among Developing Countries.

Experience has demonstrated the need to establish regional mechanisms for the support of the national processes for attaining the Goal and for cooperation in intercountry activities. The principal support areas should be the drawing up and implementation of national health plans, the development of strategies for cooperation among several countries, the coordination of international technical and financial cooperation, the evaluation and monitoring of the advance toward the Goal, and the identification and analysis of problems and proposed solutions.

These mechanisms must become the core of PAHO's strategies for attaining the Goal. The Organization must adjust its policy, structure, and program of cooperation activities to the requirements of those strategies.

f. Manpower training and utilization

This is based on national policies and programs for the development of human resources, including basic and refresher training, and their employment, in accordance with the needs of the primary care strategies adopted by the Governments; emphasis is placed on the development of new types of personnel, including the provision of new community participants and the upgrading of those already in service, and the design and development of non-traditional training methods.

g. Financing of the sector

Primary care strategies call for the analysis and reorientation of sectoral and institutional financing so that the sector may play its part in the redistribution of the national income, and financial allocations reflect sectoral priorities. The following requirments were cited: that financial and material resources be used in priority areas as productively as possible, that critical areas be analyzed and a search made for technical and administrative innovations that will reduce costs, and for new financial arrangements, that information systems be developed on the source,purpose, use, structure and volume of the financing and on how it is spent, and that the costs, production, productivity and utilization of the services, and their impact on the level and structure of health and on the distribution of the national income be monitored.

h. International cooperation

This component assumes that the reorientation of international cooperation is based on the analysis and national programming of the requirements for external cooperation, in the context of the primary care strategy and TCDC.

2.6 PRIORITY COMPONENTS OF NATIONAL PRIMARY HEALTH CARE STRATEGIES

2.6 PRIORITY COMPONENTS OF NATIONAL PRIMARY HEALTH CARE STRATEGIES

Analysis of the definitions given by the Governments of their national strategies led to the identification of the following priority components that are common to the countries of the Region.

2.6.1 EXTENSION OF THE COVERAGE OF HEALTH SERVICES AND ENVIRONMENTAL IMPROVEMENT.

All the countries confirm that this strategic component is basic to attainment of the Goal of Health for All by the Year 2000, and specify the priority populations to which coverage must be extended and the desired characteristics of that coverage, such as accessibility, timeliness, impact, efficiency, and acceptability. They redefine the contents of their programs and spell out strategic guidelines for ensuring the production of an adequate quantity of services with the requisite scope, as well as the productivity of the resources, including the maintenance, repair, design, remodeling, and expansion of the existing facilities. They stress the need for an increase in the operating capacity of the systems and for the systematic evaluation of the use, impact, and efficiency of the services provided.

2.6.1.1 Program contents

In line with the realization that the primary care strategy must be applied to meet the needs of the entire population and that the Goal requires levels of well-being to be raised and social inequalities reduced, the Governments emphasize access to health services for deprived population groups, priority being assigned to marginal rural and urban populations and, among them, to high-risk families and workers. Some countries also include the aged.

As to the program content of the primary health care strategy, which varies according to national circumstances, the Governments generally recognize the following principal components, in which the emphasis is on promotion and prevention activities suitably combined with those for treatment and rehabilitation, with a view to maximum effectiveness and efficiency and scaled to the varying exposures of different priority target groups to the different risk factors.

Maternal and child health. The Governments emphasize the problems stemming from inadequate environmental sanitation and malnutrition, those connected with the lack of comprehensive family care, and others arising from the social milieu. As a result, the strategies include the following: comprehensive approaches to the health care of mothers, control of diarrheal diseases by a combination of basic sanitation, family education, active community participation, and the application of methods for the control and early treatment of gastro-intestinal infections; the prevention of second and third-degree malnutrition; the control of diseases preventable by vaccination; encouragement of the comprehensive development of children; and consideration of the factors of social well-being and the basic needs of families. Some countries add dental health and family planning.

Immunizations. The Governments stress tuberculosis, diphtheria, tetanus, poliomyelitis, measles and whooping cough, and propose to make the most of the existing infrastructure. Where this infrastructure is insufficient, vertical immunization programs will also serve as a basis for other health actions. Periodic evaluations are proposed, including verification of the effectiveness of the cold chain and the supply of vaccines and other critical resources. These strategies call for a determination of the proportion of children immunized and an estimation of the effect of immunization on morbidity and mortality from the above-mentioned diseases.

Diarrheal diseases. Here the measures are improvement of maternal and child nutrition; health education and the promotion of breast-feeding; improvement of environmental sanitation, particularly the supply of safe water, excreta disposal, and food hygiene; improvement of epidemiological surveillance; and early oral rehydration as a restorative measure.

Acute respiratory diseases. The purpose is to develop effective programs integrated with the extension of coverage and the strengthening of primary health care, with a view to reducing infant mortality from this cause by at least 50%.

Sexually transmitted diseases. In the expectation of a substantial rise in penicillin-resistant gonorrhea and other venereal diseases, the countries emphasize improving programming and increasing allocations so as to step up epidemiological studies, redirect, and reinforce education and information activities, and improve the treatment and control of cases and contacts.

Mental health. The effort here is oriented toward problems of neurosis, mental retardation, convulsive disorders, alcoholism and drug dependency. The strategies consider that urbanization, the structure of production and employment, and the foreseeable lengthening of life expectancy warrant the expectation that current problems will be augmented by a series of psychosocial problems. Accordingly, the strategies call for activities in mental health, including other sectors -- education, labor and justice -- to provide for the prevention and care of bio-psychosocial problems. Mental health programs are called for at all levels of the system, starting at the primary level, where simple mental health promotion work can be done, psychiatric emergency care provided, and cases referred to other levels.

Cardiovascular and degenerative diseases and cancer. As a result of demographic shifts and urbanization, some countries have assigned priority to the middle-age and elderly groups. The strategies include activities aimed at the prevention of these diseases and for the treatment and rehabilitation of those afflicted, with emphasis on primary health care and community participation.

Occupational diseases and industrial hygiene. In view of the accelerated industrialization of the countries and the characteristics of agricultural development, due in particular to industrial technology, the mechanization and modernization of farm production and the use of insecticides and other chemicals, the Governments have acknowledged the need to review the approaches and methods used to date in the fields of industrial hygiene and occupational health. The strategies propose to bring current protective and preventive measures in line with technological developments in order to safeguard the health of workers. This includes accident prevention and rehabilitation. As a complement, the strategies call for the establishment and strengthening of institutions conducting occupational health and industrial hygiene programs, research on the economic and social costs of occupational problems, and the design of arrangements for financing programs of this kind.

Malaria. The strategies call for a firm policy of support to eradication programs, improved national programming on the basis of the progress achieved, the training and deployment of sufficient human and financial resources, and the design and

development of methodologies and approaches for surmounting the current technical and administrative problems. Emphasis is placed on increased community participation in the program. Some Governments envisage the programming of intercountry activities.

Other parasitic diseases, including Chagas' disease, leishmaniasis, schistosomiasis, and filariasis. The strategies are geared to the need to improve laboratory diagnostic techniques and resources, expand epidemiological surveillance systems and environmental actions including housing, and improve methods of treatment and vector control procedures.

Food and nutrition. The Governments recognize that, because of the multisectoral character of this area, action must be taken in the context of overall economic and social development. The problem is approached from the standpoints of food and nutrition simultaneously. Strategies for increasing the availability of foods are combined with specific activities for preventing and remedying malnutrition, with the coverage needed to exert an impact on present nutritional problems. These measures include food supplement programs for the more vulnerable population groups, such as mothers and children.

Safe water and basic sanitation.* The aim of the strategy for the decade is that all urban and rural populations will have drinking-water supplies and excreta disposal facilities. In consequence, not only will activities have to be carried out and resources provided for extending these services, but the problems of sectoral organization and of the operation and maintenance of manpower supply and financing systems will have to be solved as well. The Governments are concerned about physical and chemical pollution, and they stress the need to improve pollutant monitoring techniques and also the legal machinery and the

*See Annex II: International Drinking-water Supply and Sanitation Decade.

training of personnel for these purposes. Another area of action is solid waste disposal, and studies are needed to improve the organization, operation and maintenance of the systems and their financing. Control of the hygiene of foods, including their production, preparation, storage, distribution and handling, is another area covered by the strategies. Control of housing sanitation is yet another priority area, in which standards for construction and supervision must be defined and programs for education of the public be designed. The countries have also considered industrial hygiene, the protection of water sources and basins, and analysis of the impact of development projects on the human environment and participation in its treatment. In the national strategies it is recognized that environmental protection and improvement is clearly an intersectoral affair.

Veterinary public health. The strategies call for a reduction in the prevalence of zoonoses in the Americas, expansion of the areas now free of them, an increase in surveillance and the promotion of improved methods of identification and control in accordance with the characteristics of each country.

Possible implications. In view of prospective economic, social and demographic developments, a careful analysis and selection must be made of the possible program contents if the needs of the rural and urban population are to be satisfied. These analyses must be based on the distinctive nature of the needs and life styles of these groups and on the feasibility and efficiency of the possible technical solutions. It is essential that these combinations of programs be chosen and organized in the light of the different degrees of exposure of the various human groups to the many risk factors. This approach, and obvious considerations of efficiency in the use of the available resources, call for the integration not only of program areas but also of promotion, prevention, restoration and rehabilitation activities into coherent groups.

These combinations of programs must be designed for different approaches and modes of delivering services and of participation by both users and providers. It will not be enough to design them for the rural setting: conditions for the delivery of services and ways of delivering them to, for example, the rural population involved in "modern agricultural production complexes", the masses of casual wage-earners clustered around population centers, and those who remain subsistence farmers or in isolation will also have to be differentiated. Similarly, in urban areas it will be necessary to differentiate strategies for

solving the problems of the groups involved in "formal" modes of production and those groups isolated in the "informal system." Equally important is the devising of workable ways of harnessing the capabilities of the communities themselves for the satisfaction of their own needs in each of these different situations, and of fostering both individual and collective self-reliance.

It should be emphasized that these differences between possible solutions and techniques are necessary and warranted only on grounds of efficiency and feasibility, with a view to attaining universal coverage in the face of a relative scarcity of resources and the different aspirations and responses of the various groups that make up our societies. The systems and solutions designed must always be such as to prevent these differences from giving rise to differences in benefits; rather they must ensure that the needs of all are satisfied and inequalities among human groups reduced.

2.6.1.2 Expansion of Installed Capacity by Means of Investment Programs

New investment programs are considered necessary, but as a supplement to programs for increasing the productivity of services and reorienting production. In their investment strategies, the countries put emphasis on increasing the capacity of the less complex levels, with appropriate support coming from an expansion and reorientation of the secondary and tertiary networks, and the repair, remodeling and maintenance of existing capacity.

Possible implications. The strategies for creating additional capacity must stress that it is important for investment programs to take into account their impact not only on total national investment, but also and principally on the operating capacity of the health systems and on future requirements for the real and monetary resources needed for operating them.

There is also need for extreme care in deciding on the physical location of the additional units programmed. These decisions must be made consistent with regional economic development activities, with projects aimed at the spatial redistribution of the population, and with programming in other social sectors.

Technical, architectural, and equipment decisions are another important area for analysis in terms of lowering investment and operating costs and using critical inputs. Special consideration should also be given to the cultural and occupational patterns and to the needs of the populations to which they are directed.

The architectural designs and the equipment should be in keeping with the appropriate technologies decided on for the primary care strategies. They should take into account the mobility of the population, and the impact that economic development projects may have on mobility and on needs.

2.6.1.3 Increase in the Operating Capacity of the Systems and their Services

The Governments recognize that an increase in the operating capacity of the sector --a basic strategy for attaining the agreed goal-- will necessarily require organizing the system as efficiently as possible and establishing effective planning and management processes, both sectorally and institutionally. These processes must provide the frame of reference for ensuring that the work is directed at and the resources used for achieving the defined objectives. Thus, if the volume, organization, accessibility and scheduling of the services are appropriate, they will produce the impact required to meet the people's health needs, with special emphasis on the groups to which each country has assigned priority, and will do so with maximum efficiency.

The countries feel that it is crucial in this regard to develop systematic processes for the planning and evaluation of their national health systems. These processes should be integrated into economic and social development planning, provide a sectoral, multi-agency coverage, and include not only national, regional, and local-level institutional planning, but also programming at the level of the community subsystem. The process should also be participatory and be a learning experience in which all levels of and participants in the system are involved and in which the institutional planning units play a supporting and analytical role.

These processes of planning, programming, and evaluation include a redefinition of the type of health delivery and service production units; of the equipment for them, of their functions, of the number and type of personnel, and of their population coverage; of their organization by level of complexity, and the institution of referral mechanisms between units in a context of functional regionalization.

With regard to sectoral organization the countries recognized that it should encompass both public and private institutions as well as the community systems. Most of the countries are explicit about the role of the public sector as provider and regulator of services. One country states that the role of the public sector must be considered subsidiary to that of the private sector. However, it does consider the work of the health sector to be that of providing services and of regulating them. Another country envisages a single, unified health system that is the exclusive responsibility of the public sector.

Defining the role in health of social security, the countries point to its important contribution as a provider of services and as a financial agent of the sector. They recognize that the role of social security in health varies with the different characteristics of each country, but all say that there is a need for careful examination of the forms and types of social security benefits in the light of their potential as a tool for improving income distribution. They, thus, propose careful analyses of their financing systems, the structure of their benefits and costs, and the coverage and characteristics of the beneficiaries. These analyses are felt to be essential if social security is to be able to work effectively toward the redistribution of income and lessening of social inequalities inherent in the goal of Health for All by the Year 2000.

The countries see the role of the Ministries of Health as one of directing the total health sector, with financial, policy-setting, coordinating and supervisory functions as well as of being providers of services. All the countries point to the need to set up health systems, be they single, integrated or coordinated systems, with varying types and numbers of agencies within them; most, however, recognize that the core of the sector should be the Secretariats or Ministries of Health, and Social Security. The strategies stress that these systems must be structured on the basis of a clear definition of responsibility for population groups, functions, and coordination of work programs and resources. The definitions must be based on policies for coordination and authority, and on strategies for sectorial financing.

Most of the countries recognize the existence of the informal community system, and propose strategies, which vary according to the characteristics of the country, for organizing it and coordinating it with the institutional system. These proposals range from having an "autonomous" organization and administration of the informal system by the community itself, linked to the institutional system by programmed technical and logistical support, within the framework of a national health policy, to systems that integrate the informal sector into the institutional sector and thus make it the first rung in a system of delivery by level of complexity.

All the countries recognize that functional regionalization by increasing levels of complexity, inter-connected by referral mechanisms and by logistical and technical support between the different levels of the system, is a basic strategy for extending coverage as efficiently as possible. They also envisage the distribution of the population in terms of space, jobs and needs structure, and its geographic, economic and cultural access to health care, as one of the characteristics to be taken into account in any functional regionalization.

Administrative decentralization is also recognized by several countries as being necessary to ensure the efficiency of the system and to guarantee full participation in the process. Some countries say that the administrative decentralization of the sector should be consistent with the overall decentralization policy of the nation and with national regional development plans and projects.

Administrative development is considered by all the countries to be one of the crucial elements in guaranteeing the necessary managerial capacity for ensuring the effectiveness of the activities and correct implementation of health plans and programs. In addition to the development of administrative procedures (supplies, personnel, including training, maintenance, transportation and communications), all the countries place particular emphasis on the need to develop information systems for decision-making, programming, supervision and evaluation at the sectoral, institutional and community levels. They stress the importance of supervision as a tool for information dissemination, for channelling technological innovations, and for training and motivating the participants. According to the countries, these systems should be structured and developed in such a way as to parallel the development of the extension of coverage and make available on a timely basis information required for decisions on the efficiency of the system (management), the use made of it (acceptability and accessibility), and the impact of the activities in terms of the changes desired (effectiveness). Epidemiological surveillance systems are included by most countries as one of the important aspects of these national information systems.

Administrative development should, according to most of the countries, involve all levels of the system. They emphasize the need to establish effective machinery for programming and supervision of production and productivity at the level of the service delivery units, and stress local and national analysis of the technology used and of unit costs. They also point to the fundamental importance of organizing programs for the maintenance, repair and remodeling of the installed capacity (construction and mobile equipment), and the analysis and development of models and appropriate technology for maximizing its effectiveness and acceptability.

One particular aspect is the development of financial and budgetary analyses, programming, control and evaluation by means of systematic programs, the object of which is to maximize the effectiveness of the system (control of resources and reduction of costs), and to produce the effect of distributing national income from the social point of view (lessening inequalities).

The countries recognize that the development of appropriate technology tailored to the characteristics of each national system is one of the pillars that will make it possible to attain the goal of Health for All by the Year 2000. They point out that, because it would be impossible to reach the Goal with the "conventional" approaches and techniques in general use in the countries (chiefly because of the anticipated availability of real and monetary resources), innovative approaches must be developed.

It is stressed that a basic line of strategy is an ongoing process of analysis, formulation and oversight of technical and administrative standards and procedures in accordance with the needs of the priority populations and the availability of resources. The Governments thus propose the development of systems for analysing the emerging needs and aspirations of the population, and the analysis and design of technical standards and production functions which, based on an evaluation of needs and aspirations, will maximize their efficiency and impact under viable, feasible conditions.

The countries emphasize the need to develop inter-country information systems for an exchange of experience and knowledge of problems and possible solutions in different contexts, so as to ensure that experiences within a country have a multiplier effect.

Possible Implications. The experience gained over the past decade shows that, at least in the initial stages of coverage extension, major conflicts often arise. These conflicts arise, in part, because it is urgently necessary to launch the process rapidly and, in part, because it is necessary to efficiently incorporate and operate sizeable additional resources while using approaches and solutions different from those routinely employed. Working against this urgency is the slow process of maturing of the solutions adopted, the resistance to change of the various participants, and the fact that the available information and skills are inadequate to the change being sought. Thus, a contradiction appears and is almost invariably reflected in a reduction in the already inadequate operating capacity of the systems. Consequently, some confusion and dissatisfaction appear on the side both of the "users" and of the "providers", which are generally expressed in hesitations in the policy, and in the technical and administrative management of the process.

The experience of the past decade, when many countries launched coverage extension plans, has shown that these conflicts are an inherent part of the process, and that, while they have to be identified in order to lessen the contradictions, they should be put into proper perspective. Thus, any process of extending coverage, the basic strategy for attaining the Goal, must be considered a real emergency requiring extraordinary efforts to overcome or lessen the initial restrictions as well as the limitations or problems that appear during the process of change. These efforts must be based on approaches and methods that are fundamentally different from those used in processes whose form and intensity differ.

Accordingly, the design of any strategy must acknowledge the need for a drastic change in traditionally accepted ideas, and must recognize that extension of coverage and the primary care approach mean a process of change with its own speed and intensity, a change that operates within the constraints imposed by the overall socio-economic context and in a climate of uncertainty; because of this, it is necessary to move the process forward with an approach that is fundamentally empirical and heuristic.

The desired change must be reached through a process of successive approximations, which are reoriented and adjusted as knowledge is perfected through systematic analysis of the process in other countries. This necessarily entails ongoing analysis and evaluative research designed to expand knowledge, select and develop appropriate technologies, and refocus approaches so as to build the process on the basis of experience.

It basically calls for the adoption of a dialectic of participation and training for all the agents so as to build up a store of solutions and make them more viable. It also means improving the participants' skills and attitude for more effective management to achieve the objectives.

2.6.2 COMMUNITY ORGANIZATION AND PARTICIPATION

The strategic importance of community organization and participation for well-being and not solely for health is recognized by all the countries. Some of them include in their strategies the development of mechanisms for participation and linking society with the decision-making levels, and for mobilizing and using community resources, for extension of health services coverage, improvement of the environment, and overall development.

With regard to community participation, the strategies envisage it mainly in the analysis of needs, the proposal of solutions, the programming, operation and production of basic health and environmental sanitation services, and in regional development projects.

They also specify the need to recognize and promote the development of "informal health subsystems" and to provide the community with the technical and logistical support of the institutional system as well as with equipment and inputs for operating services, including sanitation services. They emphasize the need to promote individual and collective responsibility.

Possible implications. The strategies formulated in this field must take into account the various forms and procedures for organization and participation called for by the solutions to the different problems in urban and rural areas. These will be determined to a large degree by the way in which the community participates in production and its role in societal relationships.

Community organization for well-being requires the definition of a system of global participation explicitly incorporated in the national development policies. This frame of reference is essential for defining the form of community organization and participation in regional development projects and for their design and actual operation at the local level. It is also necessary for providing guidance on the way in which the various sectors will be interrelated and communicate at the national, regional and local levels.

2.6.3 DEVELOPMENT OF INTERSECTORAL LINKAGES

All the countries propose to develop more intersectoral linkages as a basic condition for the establishment of primary care, which is the main strategy for attaining the goal of Health for All by the Year 2000.

Their strategies emphasize incorporation of the health sector into the economic and social development processes, the purpose of which is to raise the population's level of well-being.

Certain countries suggest the organization and development of national social progress councils and the organization of decision-making along multisectoral lines.

The majority stress that the most effective strategy is the incorporation of the health sector, together with the other social sectors, into regional development programs, particularly such activities as: hydroelectric, irrigation, mining, industrial, agro-industrial, settlement and colonization projects, and into the planning and design of satellite and intermediate cities. The strategies emphasize that the operating costs entailed by the social sectors must be included in the operating costs of such projects and programs.

Specifically, the countries emphasize the responsibility of the health sector in analyzing the impact of these programs on human ecology and in proposing alternatives designed to mitigate or control any harmful effects that are observed.

They also point to the role of the health sector in integrated rural development programs and multisectoral programs designed to ensure the production and availability of foodstuffs. They underline the contribution of veterinary public health to the increase in the production of foodstuffs of animal origin, as part of overall development plans, as well as to the promotion of the raising of cattle and small animals. The strategies also include community education and participation designed to promote local and family production of the animal species necessary for food. The strategies mentioned also recognize that environmental upgrading activities are intersectoral in nature and therefore call for linkages between the health sector and other sectors concerned with development.

Possible implications. Analysis of the national strategy proposals shows that the countries tend to emphasize the participation of the health sector in regional development programs, particularly in large-scale projects for the exploitation of natural resources and/or for the establishment of poles of development or intermediate cities. Accordingly, it appears advisable to analyze certain conditions that are necessary for such undertakings.

First, a basic and consistent national agreement on the social change desired for a particular country is needed. Specifically, a clear understanding is required of the policies and criteria the Government as a whole took into account in selecting the regional development projects concerned. Clearly, from the viewpoint of the social sector, these objectives and criteria identify the projects suited to the development of linkage strategies, as well as the objectives and contents of the programming of each specific social sector.

Second, the possibility of achieving a linkage of the priorities, objectives and content of the different sectors involved calls for prior definition of the level and profile of well-being desired for the population that will occupy the geographic space in question.* From this viewpoint, the analysis of the intersectoral relationship goes beyond simple formal coordination between the sectors and institutions at national, regional and local levels for the attainment of partial goals, and enters the sphere of social programming.

The analysis of intersectoral relations as regards their interactions and interdemands becomes crucial. In the present state of the art, the strategies face a substantial methodological problem the resolution of which has to be included in the application of the strategies. This must also take into account the set of policy instruments that make possible the effective functioning of the measures programmed, and pay special attention to the complementarity and consistency of such specific policies with those applied at the global level. The demographic change expected and the well-being profile form the starting point for the study of the needs to be met by the articulated participation of the social and economic sectors.

This strategic approach adopted by the countries has considerable potential, but does not in any way take the place of measures to ensure linkages at the national level; it must accordingly pay particular attention to sectoral linkages, both intrasectoral and intersectoral, of the regional projects with the more general national development policies.

Another field in which the national strategies assign high priority to intersectoral linkages is the problem of food and nutrition. The food and nutrition component is one of the key elements of individual and collective health, and hence of the well-being profile each Government sets as its target.

*The definition of a well-being profile not only includes specification of the level of satisfaction of health care, housing, food, education, employment and household income needs, but also of their relationships with the structure of production and consumption, and the type of community organization and participation envisaged.

While recognizing that there is no one single answer to the food and nutrition problems of Latin America and the Caribbean, the strategies ought nevertheless to focus on ensuring the linkage of the health sector with other sectors of development in the formulation and implementation of multisectoral policies, plans and programs for the appropriate production, consumption, and utilization of foodstuffs. The health sector must play a fundamental role in both the identification of nutritional problems and their likely causes, and in the search for, and promotion of, alternative technologies for the production and consumption of foods, with a view to making food requirements compatible with national economic and social development potentials. The information, education and participation of the community are essential for ensuring the acceptance and optimum utilization of these solutions.

Any strategy in this field must take into account the fact that the implementation of broad-coverage intersectoral food and nutrition programs capable of making an impact on the present levels of malnutrition calls for a clear-cut commitment on the part of the highest national authorities. The production of foodstuffs in the quantities and of the type, quality and cost suited to the requirements of the groups in greatest need, will entail review, evaluation and adjustment of key components of any national economic development policy, both at the level of its chief aggregates and as regards specific projects and the policy instruments applied.

2.6.4 RESEARCH AND TECHNOLOGICAL DEVELOPMENT

The strategies of the countries emphasize the need to set priorities and direct research toward the identification of priority problems and the design of the solutions needed to implement the national primary health care strategies and attain the Goal. They include strengthening existing research centers and establishing mechanisms for the development of technologies suited to conditions in each country.

They recognize the following specific areas of research and technology: the technical and administrative development of the sector, critical supplies and equipment for basic services, and appropriate technology for use by auxiliary and community personnel. Also indicated as priority areas are applied research in disease control, maternal and child health, environmental problems, and critical areas of health expenditures (material resources and technology). Some countries cite the organization of centers for research on food requirements, utilization and production.

Possible implications. An attempt must be made to bridge the gap between the acquisition of knowledge and its application in the field of health. Although there is no question of abandoning the long-term studies on which scientific progress is based, such studies must go hand in hand with short-term projects to generate information for the timely solution of urgent problems. Consequently, the formulation of national health research policies will have to be reinforced by their inclusion in national plans and budgets for attaining the goal of Health for All by the Year 2000. The areas of research that today are regarded as most important will have to be redefined and better balanced so as to cover the fields of biomedical, socio-epidemiological and operations research; the national budgets for health research must be increased, and grants promoted on the basis of the priorities set by the countries; machinery for intra- and intersectorial coordination must be set up to link and reinforce the efforts of research institutions and reduce their isolation from each other. The development of human resources in the research field must be encouraged by such incentives as establishing career research positions and promoting the training of new researchers. More efficient information systems, including bibliographical services, must be provided as a reinforcement to the machinery for the dissemination of health research findings, and evaluation systems for monitoring progress in research programs should be developed.

Because of the requirements for health service systems implicit in the goal of Health for All by the Year 2000, research in this important area must be centered on the analysis of productivity and efficiency problems in the health sector, the acceptance and use of the services by communities and the impact of those services on the health and well-being profile of the target populations.

It is particularly important to analyze the experience of past decades in the development and increasing application of operations research in health systems. The approaches and techniques that constitute the current conceptual and methodological armamentarium of operations research in the health sector urgently need review. Most of the available approaches and techniques of operations research were devised and developed for the analysis of situations and the solution of problems quite different from those that arise in the health sector, and they must be reviewed, selected and adapted. These techniques, which have proved effective in the analysis of industrial and administrative processes in terms of precisely quantifiable inputs and outputs, cannot be applied in the health sector without considerable adaptation. This is mainly because of differences in scale and problems of measurability.

At this point it would be helpful to comment on a number of ambiguities in relation to strategies for the development of appropriate technology.* The adjective "appropriate" should be clarified. The need to find an appropriate technology arises when the one available does not meet certain requirements, which may be defined in terms of such factors as: acceptance, efficiency, cost, effectiveness or impact of the technology. Changes in social conditions and shifts in the health sector's interface with other economic and social sectors can make a form of organization or administration or procedure or mode of production inadequate, and it therefore becomes necessary to adapt it--to make it appropriate--to the new circumstances. Thus, appropriate technology must be visualized within a comprehensive approach to the problems of the entire health sector. This approach is predicated on a systematic and critical analysis of the sector with a view to increasing its output and adjusting it to the real conditions that determine its operation, and implies an intensive search for fresh solutions in which research plays a fundamental part. The point is to introduce a new dynamic process into the sector.

In the development of strategies there thus arises the problem of choosing ways and means by which this process can be brought into the health sector. How appropriate a technology is must emerge from the sector itself, from an examination of how it functions, what it achieves and how much of a return is obtained from the investment in it. The appropriateness of a technology is determined by its use, and it can hardly be imposed from the outside.

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* These comments were drafted in the light of the contribution of ECLA, through Mr. Ricardo Cibotti, to PAHO.

Technological evaluation becomes a key element in the generation of appropriate technologies, for in conjunction with the systematizing of health problems, it identifies the areas in which the needs are most urgent and puts forward an order of priorities for reshaping existing technologies or searching for new ones.

Any proposals for changes in existing technologies must be in keeping with the guidelines for overall development policy and the policy of the health sector itself. This implies not only that such proposals must be examined together so as to analyze their mutual consistency, but also that an assessment must be made of the socio-political obstacles that can hinder the acceptance and functioning of the package of appropriate technologies. The analysis must also consider the organizational and administrative measures that would make these new forms of production feasible.

There is no doubt that most of the technical problems can be solved by encouraging technical innovation at the local level, but this does not imply ruling out foreign technologies, which should be adopted and adapted on the basis of their potential for solving certain health problems in the specific context of each country. The strategies should also take into consideration the fact that the development of appropriate technology entails vigorous and systematic research. The results generated in the field of appropriate technologies constitute a body of knowledge whose systematic dissemination among the countries is not only an effective form of cooperation among them, but also generates a multiplier effect in increasing technological knowledge.

The urgency of solving the problems that emerge in the process of bringing health to the entire population within the established time frame will make it necessary to give priority to the empirical approach of evaluative research in order to increase the fund of knowledge and, through its application, resolve problems.

2.6.5 AVAILABILITY AND PRODUCTION OF CRITICAL SUPPLIES AND EQUIPMENT

All the countries point up the urgency of formulating strategies that will ensure the availability of critical supplies and equipment whose quantity, quality, technology, and cost are geared to the requirements of the programs and possibilities of each country. Some countries emphasize drugs, biologicals, equipment, transportation and communications, necessary for community development.

Regarding national production and/or joint production by the developing countries of the Region, the Governments assign priority to the production of drugs, biologicals and equipment, and emphasize the need for appropriate technologies to be used in such production.

Certain of them propose that these efforts be supplemented with programs to optimize the use and distribution of supplies and equipment. Others intend, as part of their strategies, to furnish minimum equipment and supplies in order to facilitate the work of community personnel in health care and environmental sanitation, specifically traditional midwives and promoters. Basic drug programs and the standardization of other supplies and equipment are also mentioned.

Possible implications: The need to supply the critical inputs and equipment required for the national primary care strategies and to maximize the productivity of health systems makes it necessary to strengthen national efforts to determine which inputs and equipment are needed and will be most effective, to eliminate the superfluous, and to devise programs for distributing and using all resources in the best possible way, as well as for the maintenance of facilities and equipment. This strategic area is closely bound up with the industrial and technical policies of each country and its production capabilities. The extent to which it can be developed also hinges on the potential of the domestic market. Differences between the production capabilities and markets of countries make it advisable in most cases to establish machinery for cooperation between countries, which exploit the advantages of a given production capability of some countries in order to organize and develop markets broad enough to maximize the productivity of that line of goods and bring down costs and prices. These intercountry mechanisms will also facilitate the establishment and effective operation of controls on the characteristics, prices, and qualities of the critical inputs that may have to be imported from traditional markets. To carry on these activities, systems for the collection and intercountry exchange of information must be set up. The application of strategies of this kind is made easier by the operation of subregional groups whose purpose is to romote trade among developing countries.

2.6.6 TRAINING AND USE OF HUMAN RESOURCES

All the countries understand the importance of formulating strategies for the training and use of human resources, which are designed to meet the needs of programs in differing national settings. They want

health manpower planning to be done in conjunction with planning for the education sector so that personnel will be trained in the disciplines and numbers needed for national health programs and systems. They emphasize the development of appropriate systems of information on human resources, the encouragement of appropriate methodologies, the design of comprehensive approaches to human resources, as well as the formulation of special studies or human resources research (occupational profiles and educational processes, utilization analyses, etc.)

With regard to priorities they emphasize community, auxiliary, and middle-level personnel and the reorientation of high-level personnel. They also include the training of health personnel in the planning, programming and administration of systems and services as an important aspect of their strategies.

As to manpower use, the countries highlight the need for adequate geographical distribution in accordance with coverage plans, the development of supervisory systems and personnel policies, and the establishment of professional careers at all levels.

Regarding training machinery, they cite basic education, continuing education, and in-service training, and emphasize the need to devise non-conventional education and training arrangements as one of the most effective mechanisms, duly completed by the programming and establishing of the teaching-medical care function in the health regions and units.

Equally fundamental is an educational development process, which makes it possible to incorporate appropriate technology into an interdisciplinary training that makes broader use of self-teaching methods.

Possible implications: The highest priority is to support the units that guide the programming, training and use of personnel at the country level since this is the natural starting point for any attempt to rationalize the manpower development process. In this context it is important to promote the close coordination of the institutions most directly concerned with the problem, which in most countries include the ministry of health, the health services of the social security system, the ministry of education and the universities and other educational institutions active in the sector.

The personnel to be trained may be projected as follows: in 1990 about 700,000 high-level health professionals will be needed, and they will have to be distributed very differently from today; the number of personnel with middle-level technical training will have to be tripled, their composition changed, and their training geared to the changing needs of the services, economies, and societies.

The large volume of resources needed at a more elementary level, including lay personnel employed in the community itself, will require more special attention and in many cases the formalization of training so that it may be used more efficiently. The institutionalization of vocational training that has taken place in industry and business has still to be replicated in a number of social sectors; in the health sector this could be done through the service institutions themselves, at which level schemes for the integration of teaching and health care could also be implemented. This approach must be complemented by widespread in-service training in which knowledgeable and experienced personnel in every category exercise educational supervision over those in the next category below.

Another need will be for a significant increase in the production of instructional materials. The more elementary the level for which materials are intended, the more necessary it will be to adapt them to the target sociocultural milieu. The increasing development of educational technology will make it the principal instrument for improving the training process and expanding the production of more appropriate learning materials.

All this will have to be accompanied by a new definition of rationality, a new way of thinking that emphasizes both the quantitative aspects and the structural relations between the "actors" and the "acted on" in the teaching-learning process. It also applies the criteria of efficiency, efficacy and effectiveness, that is, uses resources with the least expenditure of money and effort, and at the same time evaluates results in terms of the changes brought which increase the supply of educational opportunities.

2.6.7 FINANCING OF THE SECTOR

The strategies of the countries emphasize the critical importance of making systematic analyses of the sources of finance of the sector and of its institutions in order to be able to define, operate and control sectoral financing systems that will eliminate the barriers to accessibility and ensure the redistribution of the social security

resources within the sector and the coordination of the resources of its institutions, the increase of the productivity of existing and additional resources and their utilization according to established priorities, the analysis and identification of critical areas that affect health expenditures (personnel, supplies, technology and organization), and the resultant development of substitution programs for inputs, standards and technologies in order to maximize efficiency.

The strategies also take into consideration the fact that hydroelectric, irrigation, mining, industrial, agroindustry, settlement and colonization, and other regional development programs, should also make provision to finance any "health components" which are included in such undertakings. Reference is also made to attracting external resources to complement the national investment outlays and certain health programs selected on the basis of their priority and characteristics. They stress the channeling of financing for basic sanitation services in poor areas and the organization of sectorial funds for the development of basic services.

Possible implications: The national financing strategies for the decades ahead will have to pay special attention to ensuring that the financing of the health sector contributes to the optimum distribution of national income. Besides the mechanisms that provide information on political decision, this implies that it is urgently necessary to establish the origin and impact of funds allocated to the sector; the targets and utilization of the services provided, in terms of the socio-economic groups actually benefited; the structure and costs of such services; and the productivity of the resources allocated to the sector.

Examination of the situation of the health sector reveals major shortcomings and information gaps on these aspects. Development of information mechanisms is vital for the essential and urgent in-depth review of the present financing systems and forms of sectorial organization. Information on financing is crucial for decision-making, both as regards the creation and allocation of financial resources, and their subsequent control and adjustment.

Regarding the central sectorial problem on how best to obtain a sufficient allocation of financial resources, the strategies will have to take into account the fact that over the past decades both the traditional assumptions and the mechanisms for financing health systems have become increasingly outmoded. The traditional sources and the various devices used to obtain funds have become virtually exhausted. The financing of the additional resources needed to make up the service deficit involves magnitudes that are clearly beyond the capabilities of the customary

financial mechanisms if the present financing procedures and service patterns continue to be used. Probably no single country, not even the most economically advanced, is able to finance its health service deficit by traditional financial means without this entailing significant sacrifices of other social goals that are also important for society as a whole.

This problem is made all the more acute by the acknowledged need, whenever possible, to promote health through improvements in the other contributors to overall well-being. Accordingly, the problems of financing the sector in connection with the goal of Health for All by the Year 2000 are much more extensive and complex than those which the sector has traditionally had to deal with. All the sectors that contribute to the total well-being of the population are included and, as a result, they are identified with the basic problems of national development.

Even if adequate funding was assured, the social goals implied by Health for All by the Year 2000 are such that financial feasibility in and of itself is not sufficient. Economic efficiency and effectiveness are also essential, that is, the objectives sought must be achieved without wastage.

In the decades ahead, the health sector's responsibility for increasing the productivity of its activities will be considerably greater, so that its management capability will have to be developed to the maximum in order to ensure its efficiency and effectiveness. The search for, and the systematic application of, technological and administrative solutions that will bring down unit costs of most types of health services as well as increase their effectiveness is essential. Resources not fully utilized in the past will also have to be utilized to their maximum potential.

The financing strategies will have to seek solutions that include and combine the public sector, the organized community, and the private sector, in such a way as to ensure the equity of the system and its financial feasibility and viability. Attention should be given not only to whom the delivery of services is directed, but also to the impact of financing as an income redistribution factor. The problem of the financing of the health sector, therefore, goes beyond strictly monetary concerns into the sphere of real resources and the productivity and equity of the system.

The organization of the sector, its planning and administration, the development of research technology, and the training and utilization of human resources will have to be geared to maximize the productivity of the available resources in order to satisfy the needs of the entire population and, especially, those of the social groups previously neglected.

External sources of finance could make "take off" possible in situations calling for a major investment in the expansion of the infrastructure, especially if they are coupled with the administrative, technological and human resource development programs needed to ensure that the investment concerned becomes fully operational. The national commitment that this type of external financing requires over time, obliges the health sector to ensure that the debt servicing burden will not be aggravated by mismanagement or under-utilization. Should external financing prove to be essential, the health sector assumes the responsibility for converting these funds into real resources and services with the necessary levels of social effectiveness and productivity. This implies, inter alia, careful financial programming and painstaking analyses of the pertinence and feasibility of the activities for which such financing is sought.

The changes necessary in the organization and financing of the sector, in the pattern of use of the services, as well as in the structure of the supply, will have a political cost that will have to be taken into account, since these changes will affect the vested interests of certain users, professional groups, and institutions.

In this context, the strategies will have to take into account the fact that the competition of the health sector with other sectors for resource allocations cannot, as has been attempted without great success in the past, be solely based on assumptions concerning contributions to economic growth. The effectiveness of its contribution to overall well-being and to a lessening of disparities between population groups, as well as the productivity with which it uses and will use the resources allocated to it and the additional resources it seeks, will have to be demonstrated.

Clearly, in any case, analysis of the financial problems of the 1970's seems to show that any strategy in this field must include the following: the strenghtening of intersectorial collaboration, greater equity in income distribution, generation of additional public revenue, a greater collectivization of public and private expenditure, greater intrasectorial coordination, expansion of the coverage of the organized sector and the community system, improved management and control systems,

more efficient utilization of existing resources, improvement of the organization and administration of the existing system and of the service components, and improved cost accounting and experiments with modified delivery systems and new technologies.

2.6.8 EXTERNAL COOPERATION

All the countries acknowledge the need to use external cooperation to complement and support the national effort. They stress the urgent need for this cooperation to be reoriented, both its policies and its terms and procedures. They recognize the need to align it with national priorities and characteristics and to ensure its maximum utilization and impact in the development of the national capacity, while avoiding distortions, duplications, and gaps.

In this regard the strategies are directed toward ensuring that external cooperation satisfy the following conditions: it must respond to the needs and external policy requirements of each National Government and be linked through the Health Ministry to the rest of the institutions of the health sector; it must not take the place of the national effort; it must be temporary and specific; and it must be educational and promote the mobilization of the national capabilities along those lines. As the key strategy for that purpose, the Governments identify the systematic national analysis of needs and of the capacity to absorb external cooperation and the programming and negotiation of it within a national intersectoral context.

These national analyses, evaluations and programmings of international cooperation, where they are carried out, become key elements for maximizing the use of international cooperation and for evaluating the country's possibilities and options for using it. Moreover, they are helpful in reorienting the cooperation policies and practices of the agencies of the United Nations family, the Pan American system, and bilateral and private agencies.

The national strategies further emphasize the importance of strengthening Technical Cooperation among Developing Countries (TCDC). A specific aspect of this cooperation, and one noted as being of primary importance, is the need to establish region-wide systems and mechanisms for the diffusion and channelling of conventional and non-conventional information that will give the countries access to knowledge, and ensure that experience is made available to all. One government stated its intention to institute schemes for cooperation and financing between Latin American and African countries.

Implementation of these strategies, specifically as regards strengthening the TCDC mechanism, calls for the organization of region-wide mechanisms that will serve as channels between the countries and as centers that provide the information necessary for the operation of TCDC.

2.7 INTERCOUNTRY COOPERATION STRATEGIES

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Experience in this hemisphere shows that there are health problems that can best be solved by the combined action of several countries, hence by designing cooperative strategies. Analysis of the national strategies formulated by the governments makes it possible to identify specific areas where programming and implementation call for collective action by groups of countries. These areas include certain health care problems, the development of human resources, critical supplies and equipment, research and technological development, all within the context of Technical cooperation Among Developing Countries (TCDC).

2.7.1 HEALTH CARE PROBLEMS COMMON TO SEVERAL COUNTRIES

This is one of the areas of greatest concern to Governments. The most important points are:

a. Epidemiological research on priority health problems common to a number of countries, the development and shared use of research facilities, and the dissemination of epidemiological information.

b. The development of information systems for an exchange of knowledge and experience of national problems whose solution calls for joint and synergistic programs of action. Prominent among these are malaria, Chagas' disease, schistosomiasis, yellow fever and dengue and other arbovirus diseases; veterinary public health; physical and chemical hazards; and problems affecting border areas.

c. The development of cooperative programs for the design and implementation of standards and control of pharmaceuticals, toxic products and narcotics.

2.7.2 HUMAN RESOURCES

The development of human resources on the basis of the needs and requirements of national health plans is itself a task that is appropriately done by each country individually. However, experience shows that intercountry cooperation is an essential supporting complement.

The national strategies formulated by the Governments require the setting of priorities in intercountry actions for personnel education and training. The principal priority areas are the administration, planning and programming of systems and services, the maintenance of equipment and facilities, and the provision of supplies. The strategies also envisage cooperative programs to facilitate the use of teaching institutions, staff, material, and equipment by several countries.

The joint measures to be adopted by the Governments in the area of human resources could include formalization and systematization of the use of teaching institutions and programs in other countries for the training of certain categories of personnel when the necessary facilities are not available locally and it would be uneconomical to establish them, as well as the conduct of intercountry programs for the training and use of personnel in accordance with the following guidelines:

a. That these programs be drawn up on the basis of the characteristics and needs of the participating countries and contribute to the development of the national capabilities with a multiplier effect;

b. That they facilitate exchanges of information and local experiences, the conduct of evaluational research of priority problems, and the formulation of proposals for developing innovative solutions;

c. That new forms of training and new teaching materials be developed and tested that enable personnel to be trained in the numbers and at the times called for in the health plans;

d. That national centers for the development of knowledge and manpower training be improved and become centers for research and for exchanges of information on appropriate technology between countries.

2.7.3 CRITICAL SUPPLIES AND EQUIPMENT

One of the principal objectives of the Governments is to ensure the availability of critical supplies and equipment consistent with the requirements of the Primary Care strategy they have adopted. This calls for the strengthening of national efforts to determine which are the most effective and necessary inputs and to eliminate those that are superfluous; and for the execution of programs for achieving the best distribution and use of those inputs, including the maintenance of establishments and equipment. With respect to the production and purchase of these supplies and equipment, the first problem is to decide whether socially and economically it is more advisable to purchase them or to produce them. If they can be produced nationally, the present and future advantages and disadvantages, in terms of cost and price, of the technology available, the volume of production, and the size of the market, must be evaluated. These national evaluations form the basis for determining the advisability of designing an intercountry strategy for the production and marketing of critical inputs and equipment.

The design of these strategies should take into consideration the possibility of solving the problem through activities that involve several countries, bearing in mind production facilities, economic advantages, especially reduction in costs and prices, as well as possibilities of organizing and coordinating the market in the light of the potential product demand. These strategies must be supplemented by programs for the development and exchange of technologies, and call for the organization of national and intercountry information systems and of programs for the exchange, training, and updating of personnel.

Intercountry activities will also contribute to the success of programs for the control of the characteristics, quality, and prices of the critical supplies and equipment. Some developing countries have facilities and experience that may be used by other countries that lack them. In addition, the joint and coordinated action of several countries will increase their bargaining position in the traditional market for those products.

A reduction in prices and production costs, as well as an adjustment of the total expenditure on supplies and equipment, may be obtained by standardizing equipment, drugs, and other critical inputs, and adopting basic lists. To that end the requirements of each country's program must be analyzed and the standards and appropriate technologies for providing services must be redefined.

These strategies should include intercountry cooperative programs for the joint purchase and utilization of critical supplies and equipment, for example, biological products and salts for oral rehydration.

A key aspect of this strategy is the promotion of joint activities for the production of critical supplies and equipment as part of the production and trade programs of subregional economic groupings.

2.7.4 TECHNOLOGICAL RESEARCH AND DEVELOPMENT

While technological research and development is clearly a national responsibility, it also calls for close intercountry relations. This cooperation and the collection and dissemination of information on the development of methods and procedures will exert a multiplier effect. It will also facilitate systematic action by countries individually and in groups for the identification of shared problems and possible solutions. These exchanges of knowledge and experience among countries can also help develop workable or acceptable solutions that are efficient and effective but which are rejected by different groups in participating countries on grounds of "local tradition."

The problems that can be expected to arise in the process of advancement toward the Goal suggest the following among other priorities: development of services, including technology; organization and participation of the community and the factors that influence the use it makes of the services; and methods for the improvement of the intersectoral linkage.

Intercountry programs should be directed toward the following:

a. Determination of priorities and coordination of research areas for the purpose of harmonizing objectives and informational and technological requirements in common areas.

b. Regular exchange of knowledge and experience on national problems and solutions, including their joint evaluation.

c. Organization of networks and programs of comparative and collaborative research, which will facilitate the development of knowledge in important areas of common interest and ensure that services are used to the best advantage.

d. Identification of national centers that have attained or are attaining a high level of research so as to use them for training researchers and to serve the interests of the country and region.

e. Promotion of the review of the ethical aspects of research projects and the establishment of committees to oversee the safety of individuals and populations used as subjects in experiments.

2.7.5 TECHNICAL COOPERATION AMONG DEVELOPING COUNTRIES (TCDC)

The countries recognize that the application and improvement of strategies to attain the Goal by the year 2000 calling for the use of TCDC. The purpose of TCDC is the maximum development and mobilization of national capacities through technical and financial interchange. Its aim is to use intercountry collaboration to produce a multiplier effect on the development of their health care sectors.

Under this concept, the programming of TCDC should be based on the knowledge of national needs for international cooperation and on the evaluation of the national capabilities to satisfy those needs. TCDC should also take into account the possibilities of technical and financial cooperation between developed and developing countries that could be used to complement such efforts.

For TCDC to work, each country must achieve maximum development of its ability to analyze and program international cooperation, which should be reconciled with and included in national policies and plans for that cooperation. Each country should also:

a. Identify and evaluate possible sources of international cooperation;

b. Determine the areas and needs for international cooperation; analyze the advantages and disadvantages of the various sources of cooperation in the light of the characteristics of the national sector;

c. Identify the areas that could be covered through TCDC;

d. Analyze the capacity for national action and the present and potential possibilities for absorbing and providing technical as well as financial cooperation;

e. Define policies for the acceptance of national experts and other resources provided by other countries and design measures to ensure their proper utilization and exchange. In each instance, the terms of reference and programming of activities should be spelled out, proper attention being given to the timing and type of such cooperation and the availability both of counterpart human resources and of the pertinent physical, material, and financial resources;

f. Organize and exchange information among countries as a step toward increasing knowledge of problems and solutions, options, and available resources.

Within the TCDC context, each country must identify and evaluate the areas where its experience and knowledge may be useful to other countries and be prepared to provide it. To this end, it is necessary to identify programs and institutions that could provide cooperation with other countries and to foster their improvement and development. It is also necessary to organize and update the knowledge of national groups of experts that can work as a team in helping other countries solve problems in their special fields. This includes the need for a policy that facilitates prompt mobilization of such personnel and the development of administrative procedures and mechanisms to enable the national institutions and experts to provide the cooperation required.

To function properly, TCDC needs a regional information system with a systematic record of knowledge and experience and continuous updating of national institutions and experts. A program of regular subregional and regional actions must also be set up for the evaluation, adjustment and improvement of TCDC.

Bilateral and multilateral technical and economic cooperation are viewed by the countries as a complement to TCDC. In addition to the national programming of external cooperation in accordance with national policies and analysis, proper utilization entails:

a. Avoiding the disturbance that may result from the transfer of inappropriate technology, overcoming the possible lack of consistency between the interests of the developed countries and the needs of the developing countries, and

b. Ensuring that this cooperation is oriented toward priority areas not covered by TCDC and that they strengthen and complement TCDC. This is essential in both technical and financial cooperation in order to avoid using the time and the limited local human, material and financial resources for programs that are not relevant to the country's priority needs.

These conditions entail a thorough review of priorities, policies, strategies, and procedures by those who provide international cooperation.

2.8 REGIONAL SUPPORT MECHANISMS FOR THE STRATEGIES

2.8 REGIONAL SUPPORT MECHANISMS FOR THE STRATEGIES

The national strategies individually adopted by the Governments, and the intercountry strategies agreed on collectively by the Member States for attaining the goal of Health for All by the Year 2000 will directly affect national plans and programs. Consequently, each country must make sure that its health plans are consistent with the strategies adopted and, where appropriate, adjust and reorient them.

Insofar as the Organization is concerned, this means that it must adjust its structure and create and strengthen the mechanisms that enable it to perform its catalytic technical cooperation and coordination functions for the development and evaluation of the strategies and national health plans and for the promotion of intercountry relations. To this end, it must reorient its activities toward the establishment of intercountry information systems; the provision of the required technical cooperation; and promotion and participation in the evaluation and adjustment of national and regional strategies. Its responsibility also includes the systematic analysis of new problems and possible solutions that emerge during the process; the promotion of national recognition and analysis of such problems; and the adoption of new solutions by the countries.

It is therefore essential for the Organization to design the necessary support strategies which, together with the specific demands of its Member Governments, should constitute the essence and priority of its technical cooperation policy and program, the fundamental objective of which is to foster the development of national capabilities. Particular stress should be placed on the responsibility of the Governing Bodies of the Organization to exercise the utmost care in analyzing and defining policies and priorities and adopting resolutions for implementing them in order that they promote to the attainment of the goal of Health for All by the Year 2000 and to the implementation of the strategies agreed upon.

Regional analysis of national and intercountry strategies identifies four PAHO support areas: the formulation, execution and evaluation of national health plans; the development of intercountry cooperation strategies; the coordination of international technical and financial cooperation; and the evaluation and monitoring of procedures for attaining the Goal from the regional standpoint, and the identification and analysis of new problems and the preparation of solutions. Each of these areas should include the following:

2.8.1 FORMULATION, EXECUTION, AND EVALUATION OF NATIONAL HEALTH PLANS

One of the Organization's priorities is to support national health plans. These plans should include national programming of the technical and external financial cooperation required for their implementaton. Accordingly, the Governments must review and adjust their national health plans in the light of the national and intercountry strategies adopted, and harmonize their national priorities with the regional priorities jointly agreed upon within the Organization.

2.8.2 DEVELOPMENT OF INTERCOUNTRY COOPERATION STRATEGIES

The definition and development of intercountry strategies call for catalytic and liaison activities which should be the responsibility of the Organization.

Appropriate attention to health problems common to various countries and their most efficient solutions, the development of human resources and critical supplies and equipment, research and technological development, and the promotion of TCDC are all areas of concern to the Organization. As such they require: identification and analysis of critical issues in the process of attaining the Goal by the year 2000, which calls for intercountry action; establishment of guidelines and priorities for country participation in joint activities; securing the commitment of governments to participate in these activities; and the design and operation of essential mechanisms such as:

a. The definition and implementation of information systems supplying the necessary data on: problems and solutions adopted; national needs for external cooperation; and available human, institutional, financial and technological resources;

b. The adoption of regional policies and instruments for cooperation among countries, including subregional pacts, binational and multinational agreements; and

c. The establishment of measures and procedures for the evaluation, control and development of TCDC in order to ensure its successful growth.

2.8.3 ORIENTATION AND COORDINATION OF INTERNATIONAL COOPERATION

In the orientation and coordination of binational and multinational technical and financial cooperation, it is the responsibility of the Organization to promote and collaborate with other agencies in defining and adapting policies and procedures for technical and financial cooperation based on:

a. An analysis of national needs for external cooperation, in accordance with the programs adopted by the countries with reference to such cooperation;

b. Analysis of the external cooperation needed to implement intercountry strategies, including the use and the continuing and regular evaluation of TCDC;

c. Joint interagency programming and coordination so that technical and financial cooperation complement each other;

d. Establishment of policies and procedures to ensure that international cooperation complements and strengthens TCDC;

e. Evaluation of the national programming of international cooperation and TCDC.

2.8.4 EVALUATING AND MONITORING THE PROCESS TO ATTAIN THE GOAL

One of the Organization's key activities must be the systematic monitoring and evaluation of strategies and plans of action for attaining the goal of Health for All by the Year 2000. The purpose of this monitoring and evaluation is to refine the process by feeding the experience gained back into it. This systematic evaluation and monitoring will be of use to PAHO in making decisions for the adjustment and reorientation of its policies and programs. In addition, it will provide the necessary information for adapting international technical and financial cooperation and TCDC.

To this end, and based on the strategies adopted, an evaluation and monitoring system must be designed. First, decisions must be made on the subjects for evaluation and the methods and procedures to be used, including relevant indicators and categories, and the time and frequency of the evaluation.

The design of the system and scheduling of its activities must include the objectives, scope and methods of use of the system, a definition of the responsibilities of the Member Governments, of PAHO and its Secretariat, and the acceptance, commitment and support of the Member Governments for the system's administration and proper use.

Periodic review and systematic monitoring of PAHO priorities and policies to ensure the channeling of hemispheric efforts toward the implementation of regional priorities and strategies for attaining the goal of Health for All by the Year 2000 will also contribute to national self-sufficiency and intercountry exchange.

Moreover, the PAHO programming and evaluation process must be subject to constant improvement within the context of the priority areas and policies defined by the Member Countries and the Governing Bodies of PAHO/WHO.

2.8.5 IDENTIFICATION AND ANALYSIS OF PROBLEMS AND DESIGN OF SOLUTIONS

The Organization will have to strengthen its work in: the identification and analysis of new problems as they emerge in the process of attaining the Goal, the search for effective and efficient solutions geared to national characteristics, dissemination of the knowledge acquired and promotion of the recognition and analysis of these problems and solutions by the Governments. The principal way of guiding these essential supporting activities is to systematically monitor and evaluate the progress of the national and regional strategies adopted for attaining the Goal.

ANNEX I

NATIONAL STRATEGIES

1. COMPILATION OF THE INFORMATION PROVIDED BY 20 GOVERNMENTS IN LATIN AMERICA AND THE CARIBBEAN ON THEIR NATIONAL STRATEGIES FOR ATTAINING THE GOAL OF HEALTH FOR ALL BY THE YEAR 2000.

2. HEALTH FOR ALL BY THE YEAR 2000, A CANADIAN PERSPECTIVE.

3. USA STRATEGY FOR ACHIEVING HEALTH FOR ALL BY THE YEAR 2000.

1. COMPILATION OF THE INFORMATION PROVIDED BY 20 GOVERNMENTS IN LATIN AMERICA AND THE CARIBBEAN ON THEIR NATIONAL STRATEGIES FOR ATTAINING THE GOAL OF HEALTH FOR ALL BY THE YEAR 2000

- They state the need to improve welfare levels and profiles (20). They consider that the health sector contributes by increasing the availability and accessibility of health services (20) and through the provision of drinking water and environmental sanitation (18), the improvement of housing (16) and of food (17), as also in the organization and participation of the community for welfare purposes (20). They also include meeting other basic needs, (jobs, education, family income, recreation, production and consumption) (20). They assert that the concept of basic needs is relative and varies with national and cultural development and the community's aspirations (18).

1.2 PRINCIPAL STRATEGY: PRIMARY CARE AND ITS COMPONENTS

The countries of the Region have adopted the Declaration of Alma-Ata, and regard Primary Care as the principal strategy for attaining the goal of Health for All by the Year 2000.

- They assert that a clear political commitment to this strategy must be obtained and sustained, and that the strategy must be conducted in a process of educational participation and systematic evaluation and at a cost within the country's means (10).

- They indicate that the strategy is directed at the entire population and aims at equality of opportunity, access and responsibility, and at implementing the health sector's contribution to the elimination of inequality and extreme poverty (14). They define Primary Care as the point of contact with the community for meeting basic needs, including health (20). They regard development and community organization for welfare as a necessary condition (14), which implies an intersectoral approach (17).

- Primary Care is referred to as a point of entry into the system, which must be organized in levels of increasing complexity to assure accessibility, and equality and promptness of treatment at all levels of the system, with referral machinery and suitable functional regionalization (20).

1. COMPILATION OF THE INFORMATION PROVIDED BY 20 GOVERNMENTS IN LATIN AMERICA AND THE CARIBBEAN ON THEIR NATIONAL STRATEGIES FOR ATTAINING THE GOAL OF HEALTH FOR ALL BY THE YEAR 2000

The following compilation embodies information provided on their national strategies by the Governments of the following countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

This summary will confine itself strictly to presenting the principal categories and their characteristics as explicitly stated in the national strategies in the manner in which the information was supplied by each Government. Hence, the present listing is neither exhaustive nor interpretative. The figure in parenthesis following each category represents the number of countries that cited the category.

1.1 WAYS OF STATING THE GOAL

The goal of Health for All by the Year 2000 has been adopted by all the countries in the Region of the Americas, and stated by them in terms of priority human groups, health structure and levels, and welfare profiles.

- The Goal embraces the entire population (20) with emphasis on deprived urban and rural groups (20) and within them high-risk families, including mothers and children under five years of age (20) and workers (10). Some countries include the elderly (8) and schoolchildren and adolescents (2).

- As to health levels and structures the countries emphasize increasing the life expectancy at birth as a general objective (10). Also mentioned are the reduction and changes in the structure of mortality and morbidity through control of prevailing basic pathology (20), including the control of communicable diseases (20), malnutrition (17), and chronic and degenerative diseases (8).

1.3 PRIORITY COMPONENTS OF NATIONAL PRIMARY CARE STRATEGIES

1.3.1 EXTENSION OF THE COVERAGE OF HEALTH SERVICES AND IMPROVEMENT OF THE ENVIRONMENT

The countries confirm that extending the coverage of health services and improving the environment for the entire population constitutes the basic strategic component, and they specify the priority human groups, and the program packages regarded as most efficient and effective in preventing and controlling the many risk factors to which those human groups are exposed, expanding of the installed capacity, and building up the operating capacity of the systems (20).

- They identify the program packages required to meet the needs of the priority population groups (17). They cite maternal and child health with a comprehensive approach to the family and maternal and child care, including measures during pregnancy, delivery and puerperium, the prevention and control of diarrheal diseases, immunizations, nutrition, basic sanitation, community participation, family education and comprehensive development of the child (20). Also mentioned are mental health (6), care of the schoolchild and adolescent (2), and family planning (5); of the latter five countries, two cite increasing the birthrate.

  As content for the program packages they emphasize combinations of activities for promotion, prevention, restoration and rehabilitation for the control of diseases preventable by vaccination (19), of diarrheas (8), of acute respiratory diseases (6), of sexually transmitted diseases (5), of leprosy (4), and of mental illnesses, including alcoholism and drug addiction (9). They explicitly cite measures in occupational diseases and workplace hygiene (9), in cardiovascular diseases, diabetes and cancer (14), and in accidents and rehabilitation (8).

  Another area included by the Governments refers to the control of parasitic and vector-borne diseases, notably malaria (12), yellow fever and dengue (7), Chagas' disease (4), and schistosomiasis (2).

The strategies place emphasis on actions in food and nutrition (16).

The decision of the countries to improve their environments gives rise to programs for urban and rural drinking water (19), for the control of excreta (16), solid wastes (12), pollution (9) and foods (9), and the improvement of housing (10). They also attach importance to the protection of watersheds and to problems of human ecology (4), and express concern for veterinary public health, including rabies and other zoonoses (3).

- In the expansion of installed capacity, the countries emphasize the primary network and in support thereof, development of the secondary and tertiary networks (16). They also cite the restoration and remodeling of existing facilities (11).

- One of the basic strategic components is for them increasing the operating capacity of the health systems through sectoral and institutional planning, programming and evaluation integrated into economic and social development (20) and into institutional and community development (5).

- They propose a reorganization of the health sector, in which they include the public and private subsectors and the community subsystem (20), with sectorally unified management and operations and coordinated use of institutional resources (15), and assigning the public sector a subsidiary role (1) or a regulatory and production role (20). One country cites the establishment of a unified health system, while others (9) specify the organization of integrated (health ministry, social security and autonomous agencies) schemes. Another groups want coordinated systems (10) with coordination of the ministries and secretariats of health at the national, state and municipal levels (10) with social security (8) and with the private subsector (5).

  They include the organization of community systems and their articulation with the formal system (10) and cite the need to define functional and operational responsibilities at the institutional and community level (13), and they explicity refer to functional regionalization of the system with levels of increasing complexity (17) and referral machinery (14). Some want the development of legal coordination machinery (3) and administrative regionalization (7). They also attach importance to reorganizing the services (20), in which they include

a redefinition of the types of service-delivery units, endowments in personnel and equipment, and specification of the population to be served (9).

The countries emphasize the control and programming of the production, productivity, use and impact of the services (16). They report the control and analysis of administrative and supervisory standards, and of the technology employed and production and cost functions (12). Other concerns of the Governments are functional regionalization by levels of increasing complexity and referral machinery (17). They cite the analysis, programming and control of the accessibility of the services, the timeliness of their delivery, and the combining of programs (16).

- Another important strategic component for them is the development of administrative processes (supplies, personnel, transportation, maintenance, etc.) (13), in which they specify the control of production, productivity, utilization and impact (16) and budgetary and financial control (8), and the evaluation and development of technology (16) and of systems for reporting on and the evaluation, the control and administration of national processes, including epidemiological evaluation (13). They emphasize the need to conduct programs for the maintenance, recovery and remodeling of installed capacity (10).

1.3.2 COMMUNITY ORGANIZATION AND PARTICIPATION

Organization of the community for welfare, and not for health alone, is recognized as a strategy by all the countries.

- They state that the community must participate in the analysis of needs in the proposal of solutions and alternative service-delivery models, and in support to and the programming of health (13). They want it to participate in the programming, production and administration of services (12). They assert the need to make sure that the community system has the technical and logistic support of the institutional system (7) and is provided with equipment and inputs (11).

- They mention participation by the community in basic infrastructure projects and national development programs (3), and the utilization and mobilization of community resources for extending the coverage of health services and improving the environment (5). They also note the importance of health education for changing attitudes and enlisting community participation (3).

1.3.3 INTERSECTORAL ARTICULATION

All the countries propose to achieve real intersectoral articulation as a basic condition for implementing the Primary Care strategy.

- They include the organizing of national social development councils and of machinery for multisectoral decision-making (10). They emphasize inclusion of the health sector in the plans and processes of economic and social development and in the definition of levels of welfare, as also the availability of foods and the elimination of extreme poverty (20).

- They cite the involvement of the health sector in regional development projects (12), and emphasize the importance of its participation in the analysis of risks and of solutions to ecological problems (4).

1.3.4 TECHNOLOGICAL RESEARCH AND DEVELOPMENT

- They stress the need to redirect sectoral policies on technological research and development in accordance with the requirements of the Primary Care strategies, including their harmonization with national policies on science and technology, with priority to the identification of salient problems (14).

- They give importance to the areas of epidemiological research in problems of health and the environment, and refer specifically to research for the evaluation of health service systems (11).

- They cite as subjects of research the critical areas that affect the cost of health services, including critical inputs and equipment for basic services, and the technical and administrative development of the sector (11).

  They propose the establishment of machinery for the development of technology appropriate for the national primary care strategies (12).

- They refer to the strengthening of existing research centers and to the conduct of programs of both national and intercountry comparative and collaborative research (2). Finally, they cite the organization and development of national and intercountry information systems for technological research and development programs (2).

1.3.5 AVAILABILITY AND PRODUCTION OF CRITICAL INPUTS

They note the urgency of establishing strategies for assuring the availability and maximum utilization of critical inputs in in quantities, of the structure and technology, and at costs suited to the needs of the programs and to the means of each country (16).

- They emphasize the compilation of basic lists, the standardization of specifications and their adjustment to the requirements of the strategies (8). They mention the establishment of machinery for controlling quality, costs and prices, and the development of production, procurement, and marketing schemes (14).

- They refer to the national production of supplies, including medications, biologicals and drugs (9), and equipment (5).

- They propose a strategy of conducting programs for the optimization, use and distribution of inputs and equipment, including those needed for community development (11).

1.3.6 HUMAN RESOURCES TRAINING AND UTILIZATION

The countries recognize the importance of formulating strategies for the training and utilization of the human resources needed to implement the Primary Care strategy (20).

- They cite the need to chart policies for manpower development, and for the planning thereof in conjunction with other sectors (16). They state their priorities, among which they emphasize community, auxiliary, paramedical and intermediate-level personnel (17) and the reorientation of professional personnel (5).

- In personnel utilization they highlight appropriate geographical and functional distribution in accordance with coverage plans and the development of supervision systems and career employment at all levels (15).

  As to training machinery, they cite basic, continuing and in-service education (14) and the use of unconventional means (4), the development of the teaching-care function in relation to health units (6), and the introduction of vocational training in primary and secondary schooling (2).

1.3.7 SECTORAL FINANCING

Within this strategy they cite the analysis and design of financing, expenditure and cost systems for the health sector, including reporting systems, in order to dismantle the barriers to accessibility and thereby to contribute to income redistribution, to coordination of the resources of institutions in the sector, and to distribution of social security funds in the financial circuit of the health sector (12).

- They propose raising the productivity of the existing resources and the identification and analysis of critical areas that affect expenditure for health (inputs, technology and organization) (11).

  They cite sharing the financing between the Government, social security, the beneficiaries and private firms producing goods and services, and the financing of health measures as part of the regional action of large-scale projects (11). They cite the attraction of external resources to complement the national effort at investment in and the operation of health programs in accordance with characteristics and priorities (7).

1.3.8 INTERNATIONAL COOPERATION

They recognize the need to reorganize and make better use of the resources available from external cooperation (12).

- They underscore the importance of systematic analyses of national programs for external cooperation so as to make sure that it is in line with national policies and priorities and supports the development of programs while avoiding duplication and gaps (12).

- They point out that external cooperation should: be responsive to the requirements of the national policy on external cooperation, not take the place of national effort, be transitory and unspecific, be educational and stimulatory, and articulate, through the ministry of health, with the other institutions in the sector (8).

- They emphasize the importance of strengthening technical and financial cooperation among developing countries and the establishment of schemes for cooperation in subregional groups and with developing countries in other regions (7).

2. HEALTH FOR ALL BY THE YEAR 2000: A CANADIAN PERSPECTIVE

2. HEALTH FOR ALL BY THE YEAR 2000, A CANADIAN PERSPECTIVE

SUMMARY

The principle goberning Canada's approach to HFA/2000 is to ensure a level of health, social well-being and income security that will permit Canadians to live socially and economically productive lives.

Canada's strategic objectives for the 1980's designed to achieve a healthy and secure population focus on the elimination of environmental health hazards; ensuring that the public has adequate access to appropriate health care services; the alteration of lifestyles not conducive to the maintenance of good health; individual and family income security; and the provision of appropriate social services, particularly to those who are disadvantaged.

Some definitions commonly used in the health planning field are examined from the Canadian perspective. Health equity is linked to social equity and both are related to the value system.

Criteria for federal financial support of provincial health plans to ensure universal coverage include: comprehensiveness and universality of coverage; accessibility uninhibited by user charges; portability of benefits between provinces; and non-profit administration by a public agency. Barriers to the achievement of universal coverage include geographic dispersion of the population; uneven distribution of services; socioeconomic and regional disparities; and antipathetic attitudes towards health and social services.

With respect to need and expectation of services, the paper examines the influence that values, attitudes and behaviours have on public expressions of need and expectations from the health care system, and points out that need perception may be influenced by health professionals' perspectives.

Concerning risk factor measurement, attention is drawn to the problem of establishing causal relationships between identified health risks and dysfunctional behaviours sufficient to convince individuals of the consequences of their attitudes and behaviours to their health. For Canada, high-risk groups are a particular focus of preventive health and health promotion programs.

The negative connotation that adheres to current health status indicators, (which can more accurately be described as illness indicators) presents a strong argument for the need to develop a new set of indicators that can express health and well-being in more positive terms. Concerning measures, the Canadian paper briefly outlines the Canada Health Survey and notes the potential for establishing better measures of health status and risk-factor measurement.

The highlights of Canada's demographic profile are examined and trends that will impact on the health care system identified. These include a major decline in the under 25 age group and a concomitant increase in the over 65 group. Continuing declines in the over-all dependency ratio and fertility rate, and increases in female labour force participation, and in single-parent families, are projected.

With regard to Canadian health status, Ischaemic Heart Disease, Malignant Neoplasms and Accidents and other deaths by Violence and Suicide account for 60% of premature deaths. Cirrhosis of the liver and lung cancer became significant in the over 40 male cohort, while the population at greatest risk from Motor Vehicle Accidents is the 15-24 male cohort. The health status review also draws attention to the fact that 45% of hospital days are expended on the treatment of cardio-vascular and respiratory diseases, mental illness and accidental injuries, and notes the high rate of occupational injuries and illnesses.

The Canadian presentation then uses the Human Biology, Environment, Lifestyle and Health Care Organization elements of a Canadian development known as the Health Field Concept to present selected strategies relating to HFA/2000 in the areas of Health Promotion, Regulation, Research and Health Care Efficiency. This analysis identifies certain weaknesses in the Health Care System that are not only significant in the Canadian context, but which may also have a broader significance to the health of the global community.

In the area of Human Biology, the paper identifies the need for better individual understanding of the human systems and suggests Health Educators could be a useful resource to the education system. Attention is called to the need for regulation and vigilance in biomedical research as well as the need for improved coordination and efficiency in national and international research. Attencion is also drawn to developments in pre-natal diagnosis and genetic counselling and their importance in the field of preventive medicine. Two new Canadian publications are noted: the first a guide to Periodic Medical Examination; and the second a guide to Immunization for Canadians. Both publications were developed by task forces of federal and provincial experts.

In the Environment element, the paper calls attention to the value of N.G.O.s in environmental health promotion; and examines the problem of environmental health in the workplace. In the regulatory area, concern is expressed over the plethora of regulations and to the growing pressure to deregulate and minimize control over all areas of the economy. The need for continuing regulations governing environmental health is strongly advocated, including regulations for the protection of the public from hazardous products.

In the area of Lifestyle, the value of health promotion is stressed. Concern is expressed over the low priority given to health promotion by the medical profession, due to its preoccupation with the curative aspects of medical practice. A number of successful Canadian Lifestyle programs are noted. Attention is drawn to the heavy incidence of smoking and alcohol consumption and several Canadian health promotion strategies are mentioned. In the area of nutrition, the paper notes a number of strategies that have been developed as a result of the Nutrition Canada Survey, including "Canada's Food Guide". The paper observes that regulatory strategies are not very successful in changing lifestyles, and suggests further research is needed in behavioural change in order to develop better ways and means of encouraging individuals to adopt more healthy lifestyles. The value of self-help groups in influencing Lifestyle change is examined and greater use of such groups is suggested for the referral of patients with Lifestyle-determined health problems.

In the area of Health Care Organization, it is noted that this element of the Health Field Concept consumes almost 95% of health expenditures. The paper suggests that health professionals must play a bigger role in preventive programs and in health promotion if the public's dependency on curative medicine is to be reduced. The regulatory potential of governments is examined with respect to controlling the growth of the health care system and the use of monatery controls is discussed. Mention is made of Canadian strategies to control costs and improve program effectiveness and efficiency and to seek new ways for promoting Canada's health and social policy goals through new and innovative programs. In the area of research, strategies are needed to improve health data collection and dissemination, as are improved methodologies to identify health and risk indicators. The Community Health Centre concept is examined as to its strengths and weaknesses and the potential of the CHC in relation to community participation and a more holistic approach to health is expressed. The value of para-professionals is demonstrated through two Canadian programs for the North: the Nurse Practitioner and the Dental Therapist programs. Barriers to the wider acceptance of these roles by the health professions are explored.

The paper concludes by examining several factors deemed important to the goal of HFA/2000, and selects subjects for discussion from each of the Health Field Concept elements referred to in the body of the paper.

3. USA STRATEGY FOR ACHIEVING HEALTH FOR ALL BY THE YEAR 2000

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SUMMARY

The concept of Health for All by the Year 2000 has received strong support from the highest levels of U.S. Governmental health policies, and incorporates both on-going programs that are seen as policy related to HFA as well as expressions of specific unmet aspects of the HFA goal. The Department of Health and Human Services has the major responsibility for conceptualizing HFA, but has interacted with other sectors and has taken into account State and local health related responsibilities.

The elements of the U.S. Health for All strategy include: Access to Services for All Americans; Disease Prevention/Health Promotion; Environmental Health and Safety; and Health Research.

I. Access to Services for All Americans -- The elimination of barriers to access through a multifaceted strategy, will be actively pursued. This includes support for ongoing programs that address financial and service delivery needs, as well as special initiatives aimed at specific problems of those most at risk and in need:

- Federal Health Service Delivery and Manpower Programs -- The Federal Government will continue to provide a wide variety of personal medical care services to high-risk groups and vulnerable populations through Community Health Centers, Community Mental Health Centers, Migrant Health Centers, National Health Service Corps, Maternal and Child Health Grants, Indian Health Service, Family Planning Centers, and Adolescent Health Programs.

- Primary Care for the Underserved -- Two key Federal programs will provide primary care resources for the 20 million persons living in high-poverty medically underserved areas: (1) grants to communities for primary care centers; and (2) personnel placement through the National Health Service Corps.

- Financial Protection -- The U.S. strategy recognizes that no person should be unable to afford needed health services. Several initiatives promote this concept:

  a) The proposed National Health Plan, currently before the Congress would implement three programs: (1) Employer Guaranteed Coverage, requiring employers to provide all full-time employees and their dependents with health benefits coverage meeting uniform Federal standards; (2) HealthCare, providing coverage for the aged, blind, disabled, low-income groups and others who are unable to obtain private coverage at reasonable rates; and (3) Health Systems Reform, designed to enhance competition in the health care sector and reduce excess capacity in hospitals. The draft bill would establish the basis for universal health care coverage in the United States.

b) Another initiative aimed at reducing financial barriers is the Child Health Assurance Program which would change Medicaid eligibility so that nearly two million low-income children and 100,000 pregnant women, who would not otherwise qualify for Medicaid benefits, could receive access to Medicaid services.

c) A third initiative concerns Long-Term Care which would formulate plans for meeting projected needs, particularly for the elderly.

- Cost Containment -- Runaway inflation in health costs jeopardizes efforts to expand access and to pursue necessary health programs. Thus, cost containment is an important part of the HFA strategy. Actions include: (1) proposed legislation to mandate hospital cost savings and limit increases in hospital charges; (2) limitations on capital investments in facilities and equipment; (3) support for efficiency in health service delivery by encouraging the development of Health Maintenance Organizations (prepaid prevention-oriented medical care programs); and (4) evaluation of health care technologies in terms of effectiveness, safety, appropriate use, and economic impact.

II. Disease Prevention/Health Promotion -- During the last three years, the Federal government has launched a number of long-range initiatives designed to reach selected high-risk populations. These activities have great promise for improving the health status of the U.S. population. They include:

- National Childhood Immunization Initiative to establish a follow-up system that will insure immunization services for all children.

- Smoking and Health Initiative to deter smoking, particularly among children and youth, pregnant women, and high-risk occupational groups.

- Adolescent Pregnancy Program to establish program models that will reduce teenage pregnancies and provide comprehensive prenatal, obstetrical and follow-up health and support services to pregnant adolescents.

- Alcohol Initiative directed at treatment, research, and prevention of alcoholism.

- Fluoridation Initiative to prevent dental caries by providing financial and technical support for fluoridation of community and school water supplies.

Related to the Prevention Initiative, and to provide measurable objectives, five broad national goals, one for each of the five principal stages of life, were identified for accomplishment by the year 1990:

- to improve infant health; and by 1990, to reduce infant mortality by at least 35 percent,

- to improve child health, foster optimal development, and by 1990,

reduce deaths among children ages one to 14 years by at least 20 percent,

- to improve the health and health habits of adolescents and young adults, and by 1990, reduce deaths among people ages 15-24 at least 20 percent,

- to improve the health of adults, and by 1990, to reduce deaths among people ages 25-64 by at least 25 percent,

- to improve the health and quality of life for older adults and by 1990, to reduce the average annual number of days of restricted activity due to acute and chronic conditions by 20 percent.

To attain these broad goals, the Surgeon General directed that specific objectives be developed in 15 priority prevention areas, grouped in three broad categories:

- Personal Preventive Health Services - high blood pressure control, family planning, pregnancy and infant health, immunization, sexually transmitted diseases

- Health Promotion for Improved Lifestyles - smoking, alcohol and drug abuse, nutrition, physical fitness, stress management

- Health Protection for the Environment and the Community - toxic agent control, occupational safety and health, accidental injury control, dental health and fluoridation of water supplies, surveillance and control of infectious diseases.

It is recognized that attaining these goals and objectives in prevention will require the broad-based participation of public and private sectors throughout the U.S. health system. It cannot be done by the Federal Government alone.

III. Environmental Health and Safety -- The United States has initiated a broad array of regulatory actions and health and safety efforts to protect and improve the environment, including establishment of the Environmental Protection Agency and augmentation of environmental health programs in many Federal and State Government Agencies.

The United States is preparing to attack environmental health problems on several fronts: (1) Toxic Substances, including research under the National Toxicology Program, training and education, and enhanced emergency response capability; (2) Safe and Healthful Work Environments, including the evaluation of health hazards, investigation of plant sites; (3) Accident and Injury Prevention, including research on causes, and demonstrations to reduce deaths and injuries.

IV. Health Research -- A strong biomedical and public health research program is essential for furthering understanding of disease and facilitating its prevention and/or cure. DHHS has developed five long-range health research planning principles: (1) encourage and maintain support

of the search for fundamental knowledge required to meet the full range of health needs and expectations; (2) improve the quality, effectiveness, and efficiency of health care by focusing research on specific health problems, the application of fundamental knowledge to clinical practice, and on improved ways to organize and finance health services; (3) provide the knowledge that both institutions and individuals require to promote health and prevent disease; (4) sustain and enhance present research capabilities to assure future health gains; (5) integrate DHHS research with that conducted by other organizations in this country and abroad.

The U.S. Health for All Strategy recognizes the need for a strong and vital research program, encompassing biomedical science, health services research, evaluation of health care technology, technology transfer, statistical and epidemiological research, and other related fields.

Major interagency cooperative 5-year research initiatives are planned on such problems as: smoking and behavior, nutrition, prevention of reproductive effects due to workplace hazards, and Alzheimer's disease and dementias of aging.

These are the four major areas of emphasis currently being pursued by the U.S. Government in its HFA strategy. Meanwhile, activities are under way by the private sector to assist in refining these objectives as well as to identify other problems and specific measurable goals and objectives together with program plans for their achievement.

ANNEX II

INTERNATIONAL DRINKING-WATER SUPPLY AND SANITATION DECADE

ANNEX II

INTERNATIONAL DRINKING-WATER SUPPLY AND SANITATION DECADE*

The Drinking-Water and Sanitation Decade establishes that, by the end of 1990, the 145 million people who will be living in rural areas and the 333 million in urban areas in Latin America and the Caribbean should have drinking water supplies and facilities for excreta disposal. In consequence, the task for the coming decade will be to extend the coverage of services to the population that lacks them and to maintain and operate properly both existing and new systems.

The total investment required for these purposes in the Region during the period 1980-1990 is estimated at about US$50,000 million, of which US$20,000 million would be for drinking water and US$30,000 million for sewerage and sanitary excreta disposal, at prices of 1978. The annual investment figure is estimated at about US$5,000 million.

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*"...In order to implement Recommendation C.12 of HABITAT: United Nations Conference on Human Settlements, the decade 1980-1990 should be designated the International Drinking-Water Supply and Sanitation Decade and should be devoted to implementing the national plans for drinking water supply and sanitation in accordance with the Plan of Action contained in Resolution II. This implementation will require a concerted effort by countries and the international community to ensure a reliable drinking-water supply and provide basic sanitary facilities to all urban and rural communities on the basis of specific targets to be set up by each country, taking into account its sanitary, social and economic conditions..." (Report of the United Nations Water Conference, Mar del Plata, March 1977).

The 30th, 31st and 32nd World Health Assemblies adopted Resolutions WHA30.33, WHA31.40 and WHA32.11 requesting the Member States and the Organization to give high priority to the promotion of water supplies and sanitation, bearing in mind that these services are essential to attainment of the Goal of Health for All by the Year 2000.

To attain the goal of the Drinking-Water and Sanitation Decade, the Governments have adopted a series of strategies, which include, notably, the following:

a. Set realistic national goals and the formulation and execution of action plans embracing the entire population, and the inclusion of those plans and goals in the priority programs for national progress;

b. Assign priority to programs directed to low-income rural and urban-fringe populations in order to remove inequalities between different population groups;

c. Give priority to active community participation in the decision-making process for the construction, operation and maintenance of water supply and sanitation systems;

d. Adopt appropriate technologies compatible with the social, cultural and economic conditions in each country, and encourage the local manufacture of supplies and equipment;

e. Strengthen the institutions and launch programs for training and continuing education of health personnel at all levels, and explore new sources of financing for the operation and maintenance of the systems.

To implement these strategies, the Governments have recognized the need to: extend their water supply and sanitation services, particularly in the rural zones; revise their statistical systems and legal structures so as to improve the planning, administration and evaluation of their programs; remedy institutional weaknesses at all levels and improve the coordination of responsibilities among the different agencies; organize national training systems for manpower development; establish a national focal point for the collection and dissemination of information on experiences and available technology; and provide financing for the programs.

ANNEX III

DECLARATION OF ALMA-ATA, USSR

ANNEX III

DECLARATION OF ALMA-ATA, USSR

V

Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures. A main social target of governments, international organizations and the whole world community in the coming decades should be the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. Primary health care is the key to attaining this target as part of development in the spirit of social justice.

VI

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

VII

Primary health care:

1. reflects and evolves from the economic conditions and sociocultural and political characteristics of the country and its communities and is based on the application of the relevant results of social, biomedical and health services research and public health experience;

2. addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly;

3. includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation;

ANNEX III

DECLARATION OF ALMA-ATA*

The International Conference on Primary Health Care, meeting in Alma-Ata this 12 of September of 1978, expressing the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all the people of the world hereby makes the following Declaration:

I

The Conference strongly reaffirms that health, which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important worldwide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector.

II

The existing gross inequality in the health status of the people, particularly between developed and developing countries as well as within countries, is politically, socially and economically unacceptable and is, therefore, of common concern to all countries.

III

Economic and social development, based on a New International Economic Order, is of basic importance to the fullest attainment of health for all and to the reduction of the gap between the health status of the developing and developed countries. The promotion and protection of the health of the people is essential to sustained economic and social development and contributes to a better quality of life and to world peace.

IV

The people have the right and duty to participate individually and collectively in the planning and implementation of their health care.

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* International Conference on Primary Health Care, WHO/UNICEF, held in Alma-Ata, USSR, from 6 to 12 September 1978.

country. In this context the joint WHO/UNICEF report on primary health care constitutes a solid basis for the further development and operation of primary health care throughout the world.

X

An acceptable level of health for all the people of the world by the year 2000 can be attained through a fuller and better use of the world's resources, a considerable part of which is now spent on armaments and military conflicts. A genuine policy of independence, peace, détente and disarmament could and should release additional resources that could well be devoted to peaceful aims and in particular, to the acceleration of social and economic development of which primary health care, as an essential part, should be allotted its proper share.

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The International Conference on Primary Health Care calls for urgent and effective national and international action to develop and implement primary health care throughout the world and, particularly, in developing countries, in a spirit of technical cooperation and in keeping with a New International Economic Order. It urges governments, WHO and UNICEF, and other international organizations, as well as multilateral and bilateral agencies, nongovernmental organizations, funding agencies, all health workers and the whole world community to support national and international commitment to primary health care and to channel increased technical and financial support to it, particularly in developing countries. The Conference calls on all the aforementioned to collaborate in introducing, developing, and maintaining primary health care in accordance with the spirit and content of this Declaration.

maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs;

4. involves, in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the coordinated efforts of all those sectors;

5. requires and promotes maximum community and individual self-reliance and participation in the planning, organization, operation and control of primary health care, making fullest use of local, national and other available resources; and to this end develops, through appropriate education, the ability of communities to participate;

6. should be sustained by integrated, functional and mutually supportive referral systems, leading to the progressive improvement of comprehensive health care for all, and giving priority to those most in need;

7. relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community.

VIII

All governments should formulate national policies, strategies and plans of action to launch and sustain primary health care as part of a comprehensive national health system and in coordination with other sectors. To this end, it will be necessary to exercise political will, to mobilize the country's resources and to use available external resources rationally.

IX

All countries should cooperate in a spirit of partnership and service to ensure primary health care for all people since the attainment of health by people in any one country directly concerns and benefits every other