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PRELIMINARY REPORT ON THE SITUATION IN THE REGION
OF THE AMERICAS IN REGARD TO THE STRATEGIES OF
HEALTH FOR ALL BY THE YEAR 2000

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I.

INTRODUCTION

The present report describes the current situation in the Region of the Americas in regard to the minimum regional goals for the status of health and the health service system, the social and economic factors that affect the health situation, and the characteristics of the policies, strategies, and health plans of the countries. In 1980 the XXVII Meeting of the Directing Council of the Pan American Health Organization approved the objectives, goals and regional strategies for attaining the global goal of Health for All By the Year 2000. The next year the Directing Council approved the Plan of Action for the implementation of the Regional Strategies. Chapter 3 on the System of Evaluation and Monitoring, in Part III of the Plan of Action, published as Official Document 179, underscores the need for systematic evaluation and monitoring of the process for attaining the goal.

Since the established regional objectives require raising the levels of health and well-being and promoting greater social equity, the regional evaluation of the achievements toward the global goal must be made in terms of national level-of-health averages. It must also take into account the degree to which there is a reduction of the differences between the levels of health and well-being of the population at large and those of the human groups in which less satisfactory living conditions prevail. The latter groups are the ones which the Regional Strategies have recognized as "Priority Human Groups."

In accordance with the World Health Organization, four regional evaluations will be conducted, one at the end of each 6-year period, with the first to be done in 1983 to acquire baseline information, and the others following in 1989, 1995 and 2001. These periods would coincide with the evaluations of the Seventh, Eighth and Ninth General Programs of Work of the World Health Organization.

The initial evaluation must establish a baseline for the monitoring, analysis and assessment of the progress being made toward attainment of the global goal, and also interpret the operation of the process. The information presented in this document may be complemented by data appearing in "Health Conditions in the Americas, 1977-1980," on the health situation, health services and a number of demographic and socioeconomic variables.^{1/} However, the data needed to establish that baseline with the characteristics described for it, do not exist in the countries at this

^{1/} Health Conditions in the Americas, 1977-1980, Scientific Publication No. 427 (Washington, D.C., Pan American Health Organization, 1982).

time. As the countries develop their own monitoring and evaluation processes and adjust their information systems to meet the needs of those processes, this information will become available for future regional monitoring and evaluation reports.

II.

DESCRIPTION OF THE BASELINE SITUATION IN RELATION
TO THE MINIMUM REGIONAL GOALS

A. HEALTH STATUS

1. Minimum Goals

In establishing the Regional Strategies for attaining the goal of Health for All By the Year 2000, the Governments of the Region of the Americas adopted minimum regional goals and objectives. The minimum health status goals are as follows:

- a) No country in the Region will have a life expectancy at birth of less than 70 years.
- b) No country in the Region will have an infant mortality rate of more than 30 deaths per 1,000 live births.
- c) In no country of the Region will the mortality rate in children aged 1-4 years be more than 2.4 deaths per 1,000.

In 1981 the Thirty-fourth World Health Assembly adopted 12 indicators for monitoring progress in the implementation of the Global Strategy of Health for All by the Year 2000. Besides those of life expectancy and infant mortality,^{2/} the Assembly adopted the following goals for nutritional status:

- a) At least 90 per cent of all newborns will weigh at least 2,500 grams at birth.
- b) At least 90 per cent of all children will have a weight-for-age in line with standards based on the reference values adopted by WHO.^{3/}

The information available to the Region of the Americas for describing the baseline situation in relation to those goals and objectives will be considered in the following sections.

^{2/} Life expectancy at birth must be over 60 years. The infant mortality rate for all identifiable subgroups must be under 50 per 1,000 live births.

^{3/} A WHO working group has recommended the use of growth tables compiled by the National Center for Health Statistics of the United States of America. See Development of Indicators for Monitoring Progress Toward Health for All By the Year 2000, "Health for All" series No. 4 (Geneva, World Health Organization, 1981).

2. Available Information

The data available for compiling this description of the situation in relation to the minimum health goals are of national scope, that is, they are national averages. Nevertheless, the intention implicit in the global goals is to reduce inequalities among countries, and among human groups within any single country. Therefore, indicators to measure the present situation in the Region relative to the goals adopted by PAHO and WHO should be constructed for human groups. However, the data needed to do this are not available at this time, and this limitation must be kept very much in mind in considering the present report.

The health situation in relation to life expectancy and infant mortality has been described using data of the United Nations Population Division for the period 1980-1985. These are estimates based on population censuses, mortality and birth data, and studies of the trends of these vital occurrences in the countries. The purpose of this method is to offset to the extent possible the underreporting of vital statistics. Where data of the Population Division are lacking, the description is based on data furnished by the countries in response to PAHO questionnaires, which are the source of the data on mortality among children 1-4 years old. In many cases, these data are impaired by the underreporting of deaths.

No data are available on the weight of either newborns or children under five years. Hence, it will be necessary to promote the collection of these data through representative samples so that the countries may monitor their progress toward these goals.

3. Life Expectancy at Birth

Table No. 1 shows that data on life expectancy at birth is available for 34 countries and other political units in Latin America and the Caribbean representing 99.8 per cent of the subregion's population. Twelve countries and political units, with 7 per cent of that population, have attained the minimum regional goal of a life expectancy of not less than 70 years. Another 11, representing 35 per cent of the population, posted expectancies ranging between 65.0 and 69.9 years. In seven countries with almost half (47.9 per cent) of the population of this subregion the life expectancy ranges between 60.0 and 64.9 years. Only in five countries, accounting for a mere 9.7 per cent of the population, is the life expectancy at birth under 60 years, in two of them between 50 and 53 years, and in the others, over 57 years. These findings do not include Canada or the United States of America; if they were included, 47.7 per cent of the population in the Region of the Americas would be living in areas where the life expectancy is above 70 years.

Table No. 1

LIFE EXPECTANCY AT BIRTH
LATIN AMERICA AND THE CARIBBEAN
1980-1985

Life expectancy at birth* (in years)	Number of Countries**	Population (in thousands)	
		Number	%
70 and older	12	25,868	7.1
65.0 to 69.9	11	127,543	35.1
60.0 to 64.9	6	174,141	47.9
Under 60	5	35,428	9.7
Unknown	12	790	0.2
Total	46	363,770	100.0

*Source: World Population Prospects as Assessed in 1980
(United Nations, 1981).

**Includes countries and other political units.

4. Infant Mortality

Infant mortality data exist for 44 countries and other political units in Latin America and the Caribbean embracing 99.9 per cent of the population. Eighteen countries and other political units, with only 5.7 per cent of the subregion's population, have attained the regional goal of reducing infant mortality to less than 30 deaths per 1,000 live births. Another eight countries are close to the goal with rates between 30.0 and 39.9 per 1,000 live births, but they only account for 5.8 per cent of the population. For 30 per cent of it the rate is between 52 and 68 per 1,000 live births, and almost half of the population (47 per cent) lives in countries with rates ranging between 71 and 124 per 1,000 live births. In only two of the latter countries is the rate higher than 100. As can be seen in Table No. 2, while almost three quarters of the population of Latin America and the Caribbean does indeed live in socioeconomic conditions that produce mortality rates above 50 per 1,000 live births, it is apparent that the efforts being made to attain the regional goal must be considerable.

Table No. 2

INFANT MORTALITY
LATIN AMERICA AND THE CARIBBEAN
1980-1985

Rate per 1,000 live birth*	Number of countries**	Population (in thousands)	
		Number	%
Under 30.0	18	20,704	5.7
30.0 to 39.9	8	21,207	5.8
40.0 to 49.9	5	42,202	11.6
50.0 to 69.9	5	108,829	29.9
70.0 to 79.9	3	135,138	37.2
80.0 to 99.9	3	24,049	6.6
100.0 and more	2	11,379	3.1
Unknown	2	262	0.1
Total	46	363,770	100.0

*Source: World Population Prospects as Assessed in 1980
(United Nations, 1981).

**Includes countries and other political units.

If Canada and the United States of America were included in the foregoing table, it would show that 44 per cent of the population of the Region of the Americas lives in countries and other political units with infant mortality rates of less than 30 per 1,000 live births.

Analysis of the principal causes of infant mortality in the categories shown in Table No. 2 brings out the following structure:

For countries with high infant mortality rates^{4/}

- a) Enteritis and other diarrheal diseases are among the two leading causes of death in the six countries.

^{4/} Rates of 70 and over per 1,000 live births. Six countries reporting data on causes of death.

- b) Influenza and pneumonia are among the four leading causes of death.
- c) Mortality from conditions arising in the perinatal period are among the three leading causes of death in five countries, and the fifth ranking cause in one of them.
- d) Bronchitis, emphysema and asthma are in third and fourth place among the leading causes of mortality in five countries.

In countries with low infant mortality rates^{5/}

- a) Causes of perinatal mortality appear as the leading cause of death in the eight countries in this category.
- b) Congenital defects are the second, third or fourth-ranking cause of death in eight countries.
- c) Influenza and pneumonia are the second and third-ranking causes in five countries and the fifth in one country.
- d) Enteritis and other diarrheal diseases are the second-ranking cause in three countries and the fourth in four.
- e) Accidents are the fourth or fifth-ranking cause in four countries.

5. Mortality in children 1-4 years old

There are data for only 36 countries and other political units in Latin America and the Caribbean, representing 96 per cent of this sub-region's population. Nineteen countries and other political units (21.1 per cent of the population) have attained the goal of reducing mortality in children 1-4 years old to less than 2.5 per 1,000 children of those ages, as shown in the following table:

^{5/} Rates of less than 30 per 1,000 live births. Only 8 of the 18 countries in this category possess data on diseases as causes of death.

Table No. 3

MORTALITY IN CHILDREN 1-4 YEARS OLD
LATIN AMERICA AND THE CARIBBEAN
Around 1980

Rate per 1,000 children*	Number of countries**	Population (in thousands)	
		Number	%
Under 1.0	6	761	0.2
1.0 to 1.4	6	27,224	7.5
1.5 to 2.4	7	48,825	13.4
Under 2.5	19	76,810	21.1
2.5 to 3.9	10	205,042	56.4
4.0 and older	7	67,308	18.5
Unknown	10	14,610	4.0
Total	46	363,770	100.0

*Source: World Population Prospects as Assessed in 1980 (United Nations, 1981).

**Includes countries and other political units.

More than half of the population of Latin America and the Caribbean (56.4 per cent) lives in countries and other political units with mortality rates of 2.5 to 3.9 per 1,000 children 1-4 years old. In the others (18.5 per cent) the rate ranges between 4.3 and 12.4 deaths per 1,000 children in this age group. The ranking of the countries in terms of these mortalities does not match their ranking in respect of infant mortality or life expectancy. Many countries where infant mortality is very high or the life expectancy very short have no data for mortality among children 1-4 years old, or else they report rates so low as to be inconsistent with the others. These considerations point to problems of underreporting of deaths in this age group. As previously noted, these data are furnished directly by the countries and, unlike the data for infant mortality and life expectancy, were not analyzed in the United Nations Population Division.

Canada and the United States of America are excluded from the foregoing analysis. If they were included, the proportion of the population living in countries and other political units in the Region of the Americas with rates under 2.5 (the regional goal) would be 53.1 per cent.

Analysis of the causes of death among children 1-4 years old in the categories of countries and other political units shown in Table No. 3 is as follows:

In countries with high mortality rates^{6/}

- a) Enteritis and other diarrheal diseases appear as the leading causes of death in the six reporting countries.
- b) Influenza and pneumonia rank second and third among the leading causes of death.
- c) Bronchitis, emphysema and asthma rank second, third and fourth as causes of death in five of the six countries.
- d) Measles is the third or fourth-ranking cause of death in three of those countries.
- e) Avitaminosis and other nutritional deficiencies rank fourth and fifth among the leading causes of death in five of the countries.

In countries with the lowest mortality rates^{7/}

- a) Accidents are the leading cause of death in four countries and the second-ranking cause in one.
- b) Influenza and pneumonia rank second or third among the leading causes of death in the five countries.
- c) Congenital defects are the second, third or fourth-ranking cause in the five countries.
- d) Cancer ranks second or third among the leading causes of death in three of the countries.
- e) Enteritis and other diarrheal diseases rank first among the leading causes in one country and fourth and fifth in four countries.

^{6/} Rates of 4 and over per 1,000 children 1-4 years old. Six countries reporting data on causes of death.

^{7/} Rates of less than 1 per 1,000 children 1-4 years old. Five countries reporting data on causes of death.

B. THE HEALTH SERVICES SYSTEM

1. Immunization Coverage

a) Minimum Goals

The minimum regional goals establish that by the year 1990 immunization services are to be provided to 100 per cent of the children under one year of age against diphtheria, whooping cough, tetanus, tuberculosis, measles and poliomyelitis. In addition, they must be provided against tetanus to 100 per cent of the expectant mothers in areas endemic for tetanus neonatorum in accordance with preestablished norms. The goal further states that other vaccines are to be included in the service delivery system whenever warranted by the specific epidemiological situation.

b) Available Information

The data presented on vaccinations of children under one year of age are taken from the responses to quarterly and annual questionnaires for 1981 sent by the countries to PAHO under the Expanded Program on Immunization. There are no data on the number of vaccinations of expectant mothers against tetanus.

1.1 Vaccination against Diphtheria, Whooping Cough and Tetanus (DPT)

The available data on DPT are for 28 countries harboring 89.4 per cent of the population of Latin America and the Caribbean (Table No. 4). In 1981 only five countries and other political units, with 6.3 per cent of the subregional population, vaccinated 79 per cent or more of their children under one year of age with complete doses against diphtheria, tetanus and whooping cough. Countries and other political units making efforts to attain the regional goal, with coverages currently between 50 and 75 per cent, account for 35 per cent of that population. Countries with coverages of less than 50 per cent contain the remaining 48.1 per cent of the subregional population, which conveys the challenge posed by the 1990 goal.

1.2 Vaccination against Tuberculosis (BCG)

For vaccination against tuberculosis there are data for 17 countries and other political units in Latin America and the Caribbean accounting for 56 per cent of the subregional population (see Table No. 5). Only four countries (6.8 per cent of the subregional population) reported having vaccinated more than 75 per cent of their infants under one year of age against tuberculosis. Another eight countries (24 per cent of that population) were making efforts to attain the 100 per cent target and in 1981 had attained coverages of between 58 and 74 per cent. About 25 per cent of the population lived in countries and political units of very low vaccination coverages, and there was no information on 44 per cent of the subregional population (29 countries).

Table No. 4

PERCENTAGE OF INFANTS UNDER ONE YEAR VACCINATED AGAINST DPT
LATIN AMERICA AND THE CARIBBEAN
1981

Percentage	Number of countries**	Population* (in thousands)	
		Number	%
75 and over	5	23,512	6.3
50 to 74	7	130,451	35.0
25 to 49	10	46,225	12.4
Under 25	6	133,107	35.7
Unknown	18	39,354	10.6
Total	46	372,649	100.0

*Source: World Population Prospects as Assessed in 1980 (United Nations, 1981).

**Includes countries and other political units.

1.3 Vaccination against Poliomyelitis

As shown in Table No. 6, on vaccination against poliomyelitis there are data for only 50 per cent of the population of Latin America and the Caribbean (25 countries and other political units). Only three countries, with 8 per cent of the subregional population, reported coverages of between 87 per cent and 93 per cent. Seventeen countries, with 41 per cent of the population, had minimal coverage levels. If those countries do not increase their immunization work very soon, it will be very difficult for them to attain the 1990 goal.

Table No. 5

PERCENTAGE OF INFANTS UNDER ONE YEAR VACCINATED WITH BCG
LATIN AMERICA AND THE CARIBBEAN
1981

Percentage	Number of countries**	Population* (in thousands)	
		Number	%
75 and over	4	25,291	6.8
50 to 74	8	90,992	24.4
25 to 49	4	20,667	5.5
Under 25	1	71,814	19.3
Unknown	29	163,885	44.0
Total	46	372,649	100.0

*Source: World Population Prospects as Assessed in 1980 (United Nations, 1981).

**Includes countries and other political units.

1.4 Vaccination against Measles

The existing data on vaccination against measles are for 18 countries and other political units in Latin America and the Caribbean embracing 89.2 per cent of the subregional population (see Table No. 7). Only two countries reported coverages of 89 per cent and 90 per cent of their infants under one year vaccinated against measles. About half of the inhabitants of Latin America and the Caribbean (46 per cent) lived in countries and other political units that were stepping up their immunization campaigns and had already attained coverages of 50 to 74 per cent. The remainder of the population (39.3 per cent) lived in countries of inadequate vaccination levels.

Table No. 6

PERCENTAGE OF INFANTS UNDER ONE YEAR VACCINATED AGAINST POLIOMYELITIS
LATIN AMERICA AND THE CARIBBEAN
1981

Percentage	Number of countries**	Population*	
		Number	%
75 and over	3	29,719	8.0
50 to 74	5	3,746	1.0
25 to 49	12	91,932	24.7
Under 25	5	61,293	16.4
Unknown	21	185,959	49.9
Total	46	372,649	100.0

*Source: World Population Prospects as Assessed in 1980 (United Nations, 1981).

**Includes countries and other political units.

2. Coverage of Drinking Water Supply and Excreta Disposal Services

a) Minimum Goals

The information obtained on the coverage of drinking water supply and excreta disposal services at the close of 1980 provides a baseline situation on the basis of which it will be possible to determine progress toward the minimum regional goals approved by the Governments in the Region of the Americas. A direct consequence of the approval of those goals by the Member Governments is their individual and collective responsibility to provide access to drinking water supplies to about 100 million inhabitants of rural areas and 150 million of urban areas by 1990, and also to sewerage or excreta disposal services to 140 million in rural and 250 million in urban areas by that year. The Member Governments have also undertaken that, between 1991 and the year 2000, that coverage is to be extended to and maintained for 100 per cent of the population.

Table No. 7

PERCENTAGE OF INFANTS UNDER ONE YEAR VACCINATED AGAINST MEASLES
LATIN AMERICA AND THE CARIBBEAN
1981

Percentage	Number of countries**	Population* (in thousands)	
		Number	%
75 and over	2	14,239	3.8
50 to 74	6	171,524	46.0
25 to 49	4	33,613	9.0
Under 25	6	112,847	30.3
Unknown	28	40,426	10.9
Total	46	372,649	100.0

*Source: World Population Prospects as Assessed in 1980 (United Nations, 1981).

**Includes countries and other political units.

b) Available Information

As part of the global monitoring of the International Drinking Water Supply and Sanitation Decade 1981-1990 (IDWSSD) established by WHO to determine, among other things, the progress of the countries toward these goals, the countries of Latin America and the Caribbean were asked in 1982 for information on their situation in the base year of 1980.

c) Analysis of the Information

Analysis of the data returned by 21 countries aggregating about 95 per cent of the population of the Region--exclusive of Canada and the United States of America--yields the following findings:

- i) Of the 333 million inhabitants of those 21 countries, 170 million, or 78 per cent of the urban population, were supplied with drinking water through house connections or through public standpipes not farther than 200 meters away from their homes.
- ii) Of the total of 115 million inhabitants of rural areas,^{8/} 48.7 million inhabitants, or 42 per cent, were provided with drinking water supplies.

^{8/} The maximum population that an area may contain and qualify as rural is set variously by different countries at figures ranging between 100 and 5,000 inhabitants.

iii) In 1980, the basis of the data considered, 56.3 per cent of the urban population was served by sewerage and excreta disposal facilities compared with only 11.0 per cent of the rural population.

Within each country, however, there were marked differences between the coverages of the two sectors, as shown in the following tables:

Table No. 8

COVERAGE OF URBAN DRINKING WATER SUPPLIES
LATIN AMERICA AND THE CARIBBEAN
1980

Coverage Class Number	House Connections (%)	Number of Countries	Urban population (in millions)		Urban coverage (%)		
			Total	Served	Connec- tions	Easy access	Total
1	70.0 and more	10	123.0	106.0	80.9	5.3	86.2
2	50.0 to 69.9	7	86.2	57.3	60.7	5.8	66.5
3	Under 50.0	4	8.9	6.6	40.1	34.4	74.5
Total		21	218.1	169.9	71.3	6.7	78.0

*Source: Resúmenes sectoriales nacionales. Information based on replies from 21 countries to PAHO/WHO questionnaires.

The 21 countries considered were grouped in three classes for the proportions of their urban populations supplied with water through house connections, inasmuch as the indicators used are representative of 65 per cent of the total population considered. Moreover, these are the most reliable indicators, for they are generally constructed from the public utilities' customer lists. Thus, in class one, for house connection coverage of 70 to 100 per cent, 6 of the 10 countries reported 100 per cent coverage, including population with easy access to water (not more than 200 meters away from their homes). The other four countries in the class reported proportions ranging between 83 and 97 per cent. The countries in this group, with 56.4 per cent of the total urban population, were closest to the decade goals for urban areas; in the remaining 11 countries the coverage of urban service through house connections was as low as 24 per cent. However, the average coverage for the urban area as a whole was 78.0 per cent.

For the rural area, as already noted, this coverage was only 42.2 per cent. Though this coverage represented a smaller percentage of the national populations, its distribution paralleled that of the urban coverage in the same three classes of countries, as can be seen in the following table.

Table No. 9

COVERAGE OF RURAL AND AGGREGATE DRINKING WATER SUPPLIES
LATIN AMERICA AND THE CARIBBEAN
1980

Coverage Class Number	Number of Countries	<u>Rural population</u>			<u>Total population</u>		
		Total (millions)	Served (millions)	Coverage %	Total (millions)	Served (millions)	Coverage %
1	10	57.3	31.2	54.4	180.3	137.2	76.1
2	7	45.8	15.2	33.2	132.2	72.0	54.9
3	4	12.2	2.3	18.6	21.1	8.9	42.2
Total	21	115.3	48.7	42.2	333.4	218.6	65.6

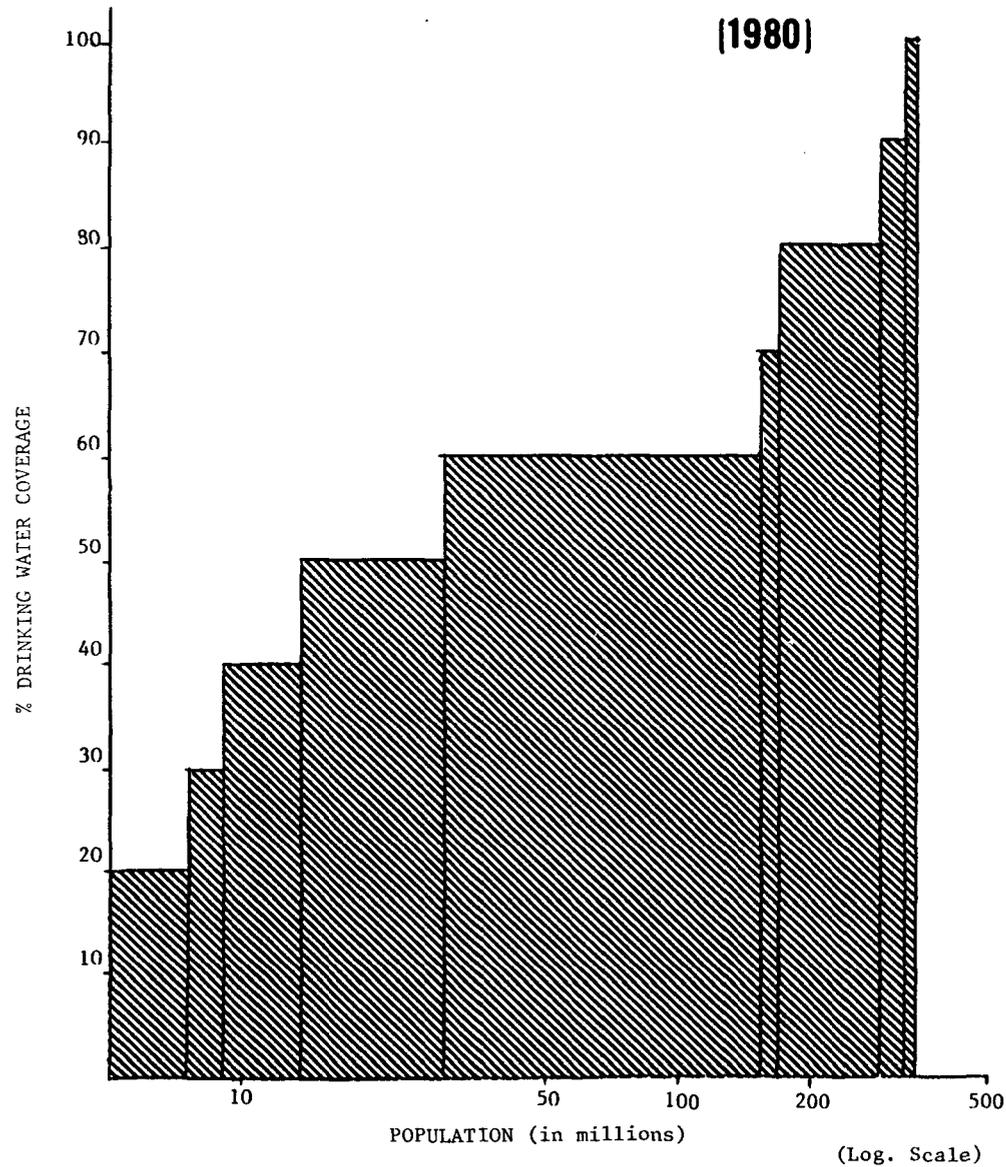
*Source: Resúmenes sectoriales nacionales.

In the first class, which included 64 per cent of the rural population, five countries reported that 60 to 93 per cent of that population had access to drinking water sources. Two countries reported coverages of 50 to 60 per cent of that population. The data include house connections the numbers of which, though they are frequent in most countries, could not be precisely determined. The other three countries in this class, and the 11 countries in the two other classes, showed coverages of less than 50 per cent. Only 48.7 per cent of the total rural population had access to drinking water supplies in 1980. Averaging this percentage with the coverage attained in the urban area yields an average coverage of 65.6 per cent, for a total of 218.6 million inhabitants served with drinking water supplies in the 21 countries considered.

If to this information for 1980 is added further information available on 13 countries in the Region dating back to between 1975 and 1979, a drinking water supply coverage of 64.8 per cent is obtained, which represents 228 million out of a total of 352 million inhabitants counted at that time in Latin America and the Caribbean (exclusive of Canada and the United States of America). The distribution of countries and the coverages of their respective populations is shown in Chart No. 1.

CHART NO. 1

PERCENTAGE OF WATER SUPPLY COVERAGE ACCORDING TO URBAN AND RURAL POPULATION LATIN AMERICA AND THE CARIBBEAN



PERCENTAGE COVERAGE	NO. OF COUNTRIES	TOTAL POPULATION
		(In millions)
Less than 10	-	-
10 to 19	1	5.0
20 to 29	1	3.1
30 to 39	2	5.8
40 to 49	2	15.6
50 to 59	8	128.9
60 to 69	2	9.8
70 to 79	2	119.9
80 to 89	8	36.8
90 to 100	8	26.6
TOTAL	34	351.5

With respect to sewerage and sanitary excreta disposal services in urban areas, the differences between the population coverages with house connections to sewers in the three classes of countries are less pronounced, as can be seen in the following table.

Table No. 10

COVERAGE OF URBAN SEWERAGE AND EXCRETA DISPOSAL SERVICES
LATIN AMERICA AND THE CARIBBEAN
1980

Coverage Class Number	Number of Countries	Urban population (millions)		Urban coverage (Percentage)		
		Total	Served	Connections to Sewers	Septic tanks and latrines	Total
1	10	123.0	65.7	41.3	12.1	53.4
2	7	86.2	52.9	44.0	17.4	61.4
3	4	8.9	4.2	32.9	14.5	47.4
Totals	21	218.1	122.8	42.0	14.3	56.3

*Source: Resúmenes sectoriales nacionales.

The same classification was used in determining differences between populations with house connections to water supplies and to sewers. It was found that, on an average, in class one the difference between the coverages of the two services was 40 per cent, that is, about 49 million inhabitants of urban areas with house connections to water supplies did not have similar connections to sewers. In the latter group, only 15 million had septic tanks or latrines. Moreover, 7 of the 10 countries reported that 90 to 100 per cent of the population was served by sewerage and sanitary excreta disposal facilities, and the remaining countries contained large populations with coverages of scarcely 30 to 60 per cent, with all the health hazards implicit in that situation.

The high magnitude of the percentage for the total urban population in class two (61.4 per cent) must be credited chiefly to the coverage attained by two of the seven countries, in which 45 and 57 per cent of the urban population had septic tanks or latrines. In the remaining countries, between 25 and 55 per cent of the population was served with house connections. Altogether, the urban coverage of sewerage and sanitary excreta disposal services in 1980 came to 56.3 per cent.

Rural sanitation in the 21 countries considered existed for a mere 11 per cent of the total rural population, which amounts to 12.7 million inhabitants provided with adequate excreta disposal facilities. However, the information from some countries was unreliable because they did not keep adequate records, and in most cases the sanitary facilities were installed by individuals. Three of the 21 countries, with 36 per cent of the total rural population considered, reported no coverage figure at all; of the remaining countries, four reported coverages of 70 to 90 per cent, one a coverage of 60 per cent, and the others 30 per cent or lower.

This sanitation situation in the rural area, which contains 35 per cent of the total subregional population, lowers the index of coverage of sewerage and excreta disposal services of the urban and rural population to 40.7 per cent, or 136 million inhabitants in the 21 countries considered. Adding existing information from another 13 countries in the Region reduces this percentage to 39.5 per cent of the total, with seven countries posting coverages in excess of 80 per cent and serving 29 million persons, three with coverages of 50 to 80 per cent and 40.3 million inhabitants served, and the remaining 24 countries with coverages below 50 per cent, with 69.7 million persons served out of a total of 139 million inhabitants. This situation is illustrated in Chart No. 2.

3. Coverage and Utilization of Health Services

a) Minimum Goals

The minimum regional goal approved by the Governments in this case establishes that access to health services will be extended to 100 per cent of the population.

b) Available Information

There is no information on the current situation of health services coverage. However, some data on health resources and their utilization, based on questionnaires prepared by PAHO and on official publications, are available and are analyzed in greater detail in "Health Conditions in the Americas, 1977-1980."

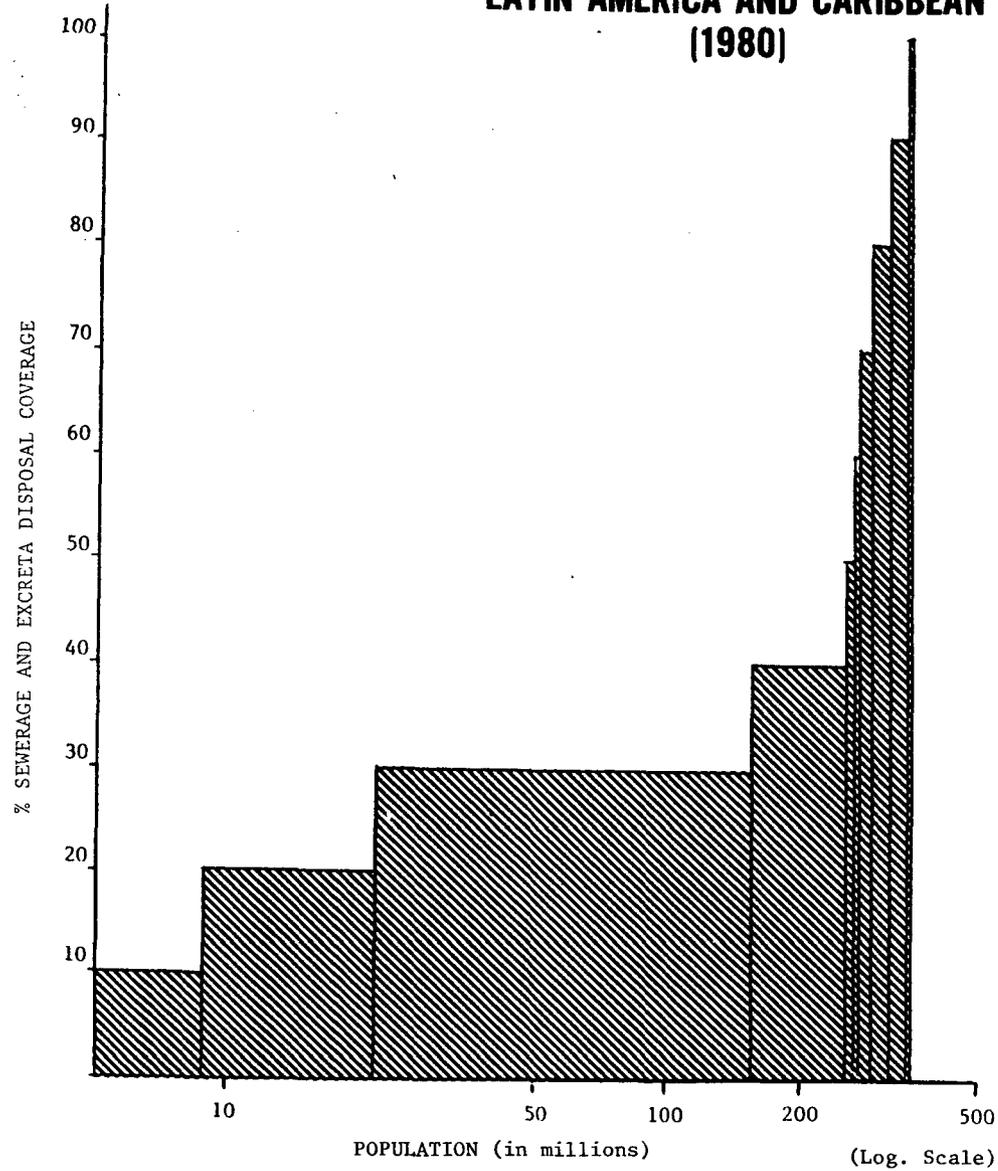
c) Analysis of the Information

The available information does not precisely convey the levels of coverage attained by the health services to date. At the beginning of the seventies it was estimated that 37 per cent of the population--more than 100 million persons--had no health services of any kind.

Estimates of the coverage of these services from the standpoint of their capacity and of their utilization by the population show that, at the beginning of the eighties, they yielded indicators of widely varying magnitude and significance in the different countries of the Region.

CHART NO. 2

**PERCENTAGE OF SEWERAGE AND EXCRETA DISPOSAL ACCORDING TO
URBAN AND RURAL POPULATION
LATIN AMERICA AND CARIBBEAN
(1980)**



PERCENTAGE COVERAGE	NO. OF COUNTRIES	TOTAL POPULATION
		(In millions)
Less than 10	10	7.8
10 to 19	4	13.9
20 to 29	4	135.1
30 to 39	4	98.0
40 to 49	2	6.4
50 to 59	1	2.9
60 to 69	1	25.0
70 to 79	1	27.9
80 to 89	4	30.3
90 to 100	3	4.2
TOTAL	34	351.5

The capability to provide services is conveyed in a ratio of about two hospital beds to every 1,000 inhabitants and a number of establishments of different complexity identified as health centers, dispensaries and health posts, which provide ambulatory care in communities of different demographic and socioeconomic characteristics.

The indicators by which coverage is traditionally estimated are subject to limitations in respect of the quantity, quality and timeliness of the information from which they are constructed. In many countries, information is lacking on the care services provided by ambulatory facilities, particularly those that reach out into the community and employ new kinds of auxiliary and voluntary personnel.

An approximation of the current situation is conveyed by some indicators of utilization of health services. The discharge rates for 12 countries in 1978 range between 3 and 17 discharges for every 100 inhabitants. The outpatient consultations per inhabitant/year for 17 countries range between 0.2 and 5.0. In eight countries the proportion of infants under one year of age who receive care ranges between a low of 52.4 and a high of 100 per 100 live births, and that of children between 1 and 4 years of age receiving care in 10 countries between 9.6 and 38.0 per 100 children in that age group.

Another report on 9 countries indicates that the population living in localities of less than 2,000 inhabitants received medical care between 0.1 and 1.5 times per inhabitant/year. Based on geographic access to any type of health unit, the ratio in such localities may be one such unit to every 5,000 inhabitants.^{9/}

It has to be borne in mind that the wide variety of institutions providing care services, in conjunction with the underdevelopment of truly sector-wide information systems, hampers the interpretation of indicators in regard to the mix of services available to different population groups and to the quality of those services. For example, it has been estimated that, in 16 countries where the social security systems are required to provide direct care, that care is available to about 55 per cent of the population.

This coverage gap, which leaves unprotected chiefly the socioeconomically depressed populations living in rural areas remote from urban centers and on the fringes of cities, results mainly from an insufficiency of facilities, though it is also associated with the organization of those facilities, which frequently are not responsive to the needs and convenience of the population. The problem does not lie solely in the numerical ratio of facilities to population, but includes also operational and qualitative impediments to their efficiency and effectiveness, which do not show up in the conventional indicators. Besides, data on the availability

^{9/} See also Chapter V, "Utilization of Health Services," in Health Conditions in the Americas, 1977-1980.

of services say very little about the actual coverage, which must result from a combination of a supply of services adequate to the needs of the different human groups and their actual use by individuals and the community.

From another standpoint, in most cases the coverage information is not detailed enough to allow the establishment of differences among indicators for different geographic areas, communities or population groups, in the countries or for the Region as a whole.

Finally, the information on services for the mentally ill, adolescents, the aged, and working people warrants the inference that these coverages are only incipient. In the occupational health field, most programs cover only the workers in large firms affiliated to social security, which often do not exceed 20 per cent of the economically active population. This leaves without insurance coverage against the risks of occupational accidents and occupational disease the personnel of small firms and, in many cases, farm workers, who together with the former account for more than 50 per cent of the labor force.

d) Status of Drinking Water Supply and Excreta Disposal Infrastructures

The different stages of the provision of drinking water supply and excreta disposal services to the aforementioned population, from overall and sectoral planning down to the design, construction, administration, operation and maintenance of systems, are the work of institutions in different sectors. These institutions include, among others, ministries and secretariats of planning, public health, public works, the interior or government, and ecology; water supply and sanitation agencies at the national, regional and local level; and other regional and urban development units.

The 21 countries considered reported about 260 participating institutions, not counting provincial, state or departmental governments, and the municipal governments, which, in conjunction with the rural water supply committees or boards, also administer and operate services directly. Only 10 per cent of these countries had decentralized institutional structures in the form of autonomous regional and municipal mixed enterprises; 14 per cent of the countries were decentralizing in this direction. Of the rest, nine had a national institution in charge of the administration, operation and maintenance of these services in urban and rural areas, and seven divided them between two institutions: one for the urban and the other for the rural area. In addition to these national institutions, however, other regional and municipal agencies continue to exist, and share with the ministry of health and the communities the responsibility for the provision of these services under not always clear-cut arrangements, in a situation that results in areas of overlapping on the one hand, and complete lack of services on the other, and concomitant competition for the scarce resources available. In this

regard, 9 of 17 countries describe as grave or very grave the constraints imposed by an inappropriate institutional framework, which in five of them is accompanied by an inadequate or outmoded juridical framework. Eight describe the intermittency of water supplies as a grave problem, and 13 report considerable constraints on the operation and maintenance of their services, while the other countries describe these constraints as moderate. Lack of community participation is regarded as a grave shortcoming by 39 per cent of the countries.

Of the 21 countries considered, 17 provide data on manpower in the sector. These data indicate that in those 17 countries in 1980, the water supply and sanitation sector employed 228,400 persons, who supplied 219 million persons with water and 123 million urban and rural inhabitants with sewerage and excreta disposal services. This amounts to an aggregate average productivity (for water supply and excreta disposal combined) of 1,500 inhabitants per employee.

The distribution of this manpower among the various categories is illustrated in the following table:

Table No. 11

MANPOWER IN THE WATER SUPPLY AND SANITATION SECTOR, BY OCCUPATIONAL CATEGORIES, IN LATIN AMERICA AND THE CARIBBEAN
1980

Category	Posts filled at close of 1980 (thousands)	Percentage
Planning and management	8.7	3.8
Technical staff	47.5	20.8
Skilled labor	118.9	52.1
Administrative personnel	49.1	21.5
Personnel based in the community	<u>4.2</u>	<u>1.8</u>
Total	228.4	100.0

Forty-three per cent of the countries regard as grave or very grave the constraints imposed on services by an insufficiency of trained staff at both the professional and intermediate levels.

To surmount these constraints and carry out the measures that will enable them to attain the regional goals approved by the Member Governments for the decade, 76 per cent of the countries have begun or completed the preparation of national plans, while 20 of the 21 countries

have defined their goals: nine have defined them to 1990 and the other 11 have defined them partially, some of them being restricted, by not yet having a plan, to the horizon of the national planning period, which usually runs from 4 to 5 years.

According to the investment projections worked out by 17 of the 21 countries, representing 92.6 per cent of the aggregate population considered, the national plans they have formulated for the decade call for combined investment of US\$36,000 million at constant prices of 1980.

The figures and distribution foreseen by the countries for investments in drinking water supplies and sanitation in the urban and rural areas, respectively, are as follows:

Table No. 12

PROJECTIONS FOR INVESTMENTS IN DRINKING WATER SUPPLIES AND SANITATION IN
17 COUNTRIES OF LATIN AMERICA AND THE CARIBBEAN 1981-1990
(in millions of US\$)

Total investment	Drinking water supplies				Sanitation			
	Urban		Rural		Urban		Rural	
	\$	%	\$	%	\$	%	\$	%
33,036	14,018	38.9	3,600	10.0	16,036	44.5	2,382	6.6

This would amount to an average annual investment of about US\$3,600 million during the decade, much more than has been reported by 52 per cent of the countries (with 67 per cent of the population) as invested in 1980, which was US\$1,394 million. This combined with the financial constraints, which are regarded as very grave by 3 and as grave by another 8 of the 21 countries, will require radical solutions, particularly considering the wide range of variation in the level of coverage among the various Member Countries, which means that some of them will have to invest at least four times as much as they did in 1980 in order to attain the established goals.

III.

SOME FACTORS INFLUENCING THE HEALTH SITUATION

A. DEMOGRAPHIC ASPECTS

On the basis of the data available toward mid-1980 it is estimated that in that year the population of the Region of the Americas totaled 611.5 million inhabitants, and will rise to 864.5 million by the year 2000 (see Table No. 13).

These estimates and projections and all the analyses hereafter are based on the mean growth variant, that is, the population trends that seem most likely on the basis of past trends, the expected social and economic development, and the prevailing attitudes and population policies. Based on different assumptions of future fertility, mortality and migration rates, the estimates of the total population in the Region in the year 2000 would yield a low variant of 828 and a high of 891 million inhabitants.

The table also shows that population growth is greatest in the countries^{10/} of Latin America and the Caribbean, the population of which amounted to three fifths of the regional total in 1980, and should increase to two thirds by the end of the century. This relative increase reflects a faster growth of the population in the mainland countries of Latin America, inasmuch as the population of the Caribbean countries is growing at a rate close to the Regional average.

It is also apparent from the table that the population growth rates, though high, are in a down trend. The reason for this deceleration is that birth rates have fallen faster than mortality, as illustrated in Charts Nos. 3 and 4 for changes in life expectancy at birth and in the gross reproduction ratio.^{11/} These two measures are not affected by the population age structure, and so afford better comparability over time than other mortality and fertility indicators.

Reduced mortality has resulted in an almost steady increase of the life expectancy at birth in the countries of Latin America and the Caribbean, where between 1960 and 1980 it gained seven and a half years, and is projected to increase almost five years more over the next two decades, which would bring it to 69 years by the year 2000. In Canada and the United States of America, life expectancy at birth reached 70 years as

^{10/} Here and in the rest of the chapter, this term includes all political units.

^{11/} The average number of daughters born to a cohort of women during their childbearing years assuming no mortality and that the fertility rates specific to different ages hold constant.

Table No. 13

ESTIMATED AND PROJECTED TOTAL, URBAN AND RURAL POPULATION IN THE REGION OF THE AMERICAS
1980-2000

Region	Total population						Growth ^c	
	Number (in thousands)			Distribution (%)			1980- 1990	1990- 2000
	1980	1990	2000	1980	1990	2000		
<u>Total</u>	<u>611,487</u>	<u>733,022</u>	<u>864,492</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>1.83</u>	<u>1.66</u>
Latin America and Caribbean ^a	363,770	459,372	565,829	59.5	62.7	65.5	2.36	2.11
Latin America ^b	333,056	422,679	522,461	54.5	57.7	60.5	2.41	2.14
Caribbean ^a	30,714	36,693	43,368	5.0	5.0	5.0	1.79	1.69
Canada and USA	247,717	273,650	298,663	40.5	37.3	34.5	1.00	0.88
<u>Urban population</u>								
<u>Total</u>	<u>428,114</u>	<u>547,085</u>	<u>676,512</u>	<u>70.0</u>	<u>74.6</u>	<u>78.3</u>	<u>2.48</u>	<u>2.15</u>
Latin America and Caribbean ^a	237,753	328,195	428,464	65.4	71.4	75.7	3.28	2.70
Latin America ^b	221,970	307,180	401,406	66.6	72.7	76.8	3.30	2.71
Caribbean ^a	15,783	21,015	27,058	5.4	57.3	62.4	2.90	2.56
Canada and USA	190,361	218,890	248,048	76.8	80.0	83.1	1.41	1.26
<u>Población rural</u>								
<u>Total</u>	<u>183,373</u>	<u>185,937</u>	<u>187,980</u>	<u>30.0</u>	<u>25.4</u>	<u>21.7</u>	<u>0.14</u>	<u>0.11</u>
Latin America and Caribbean ^a	126,017	131,177	137,365	34.6	28.6	24.3	0.40	0.46
Latin America ^b	111,086	115,499	121,055	33.4	27.3	23.2	0.39	0.47
Caribbean ^a	14,931	15,678	16,310	48.6	42.7	37.6	0.49	0.40
Canada and USA	57,356	54,760	50,615	23.2	20.0	16.9	(0.46)	(0.79)

^aIncludes Bermuda and St. Pierre and Miquelon^bIncludes all countries in the Hemisphere except Canada and the USA.^cAverage annual geometric growth rate (%)Source: Estimates and Projections of Urban, Rural and City Populations, 1950-2025: The 1980 Assessment. ST/FSA/SER.R/45.
(New York, United Nations, Department of International Economic and Social Affairs, 1982).

early as 1960, and is projected to reach 74.3 years by the end of the century. These figures are averages for both sexes; in Latin America and the Caribbean women live about four years longer than men, compared with eight years longer for women in Canada and the United States of America.

The reduction of the natality rate is reflected in a steep drop of the gross reproduction rate (Chart No. 4). It is projected that the pronounced decline of this rate in the countries of Latin America and the Caribbean from 2.90 children in 1960 to 2.05 in 1980 will continue at a similar pace, while the figures for Canada and the United States of America, which began to decline 10 years earlier from an initial level of 1.63, should level off at about 1.0.

Fertility is decreasing faster than mortality, and the reduction in both rates is greater in the countries of Latin America and the Caribbean, which began the period with higher rates. Despite this remarkable drop in fertility and the consequent deceleration of population growth, the population of Latin America should increase 57 per cent, that of the Caribbean 41 per cent, and that of Canada and the United States of America 21 per cent between 1980 and the end of the century.

The salient feature of this rapid population growth is that it will be predominantly urban.^{12/} As can be seen in Table No. 13 and Chart No. 5, the rural population of the countries in Latin America and the Caribbean will increase very little in absolute terms, and will decline relatively from more than a third of the total in 1980 to less than a fourth in the year 2000. During the same period, the rural population of the United States of America and Canada, because of the relative weight of the first of these two countries, will decrease not only relatively, but absolutely as well.

The urban population, on the other hand, will increase relatively from 70 per cent of the regional total in 1980 to 78 per cent in 2000 and should almost double in Latin America and the Caribbean, where the cities will account for almost 430 million people within 17 years. In the Region's developing countries the urban population will grow from less than two thirds to more than three fourths of the total. This development will

^{12/} Definitions of urban population are as given in Estimates and Projections of Urban, Rural and City Populations, 1950-2025: The 1980 Assessment, ST/ESA/SER.R/45 (New York, Department of International Economic and Social Affairs, United Nations, 1982). Most of the countries define urban population in terms of political and administrative criteria (that of municipal seats, etc.); those using quantitative criteria usually define as urban the populations of settlements of 1,000 to 2,500 inhabitants or more.

CHART NO. 3
LIFE EXPECTANCY AT BIRTH
1950-2025

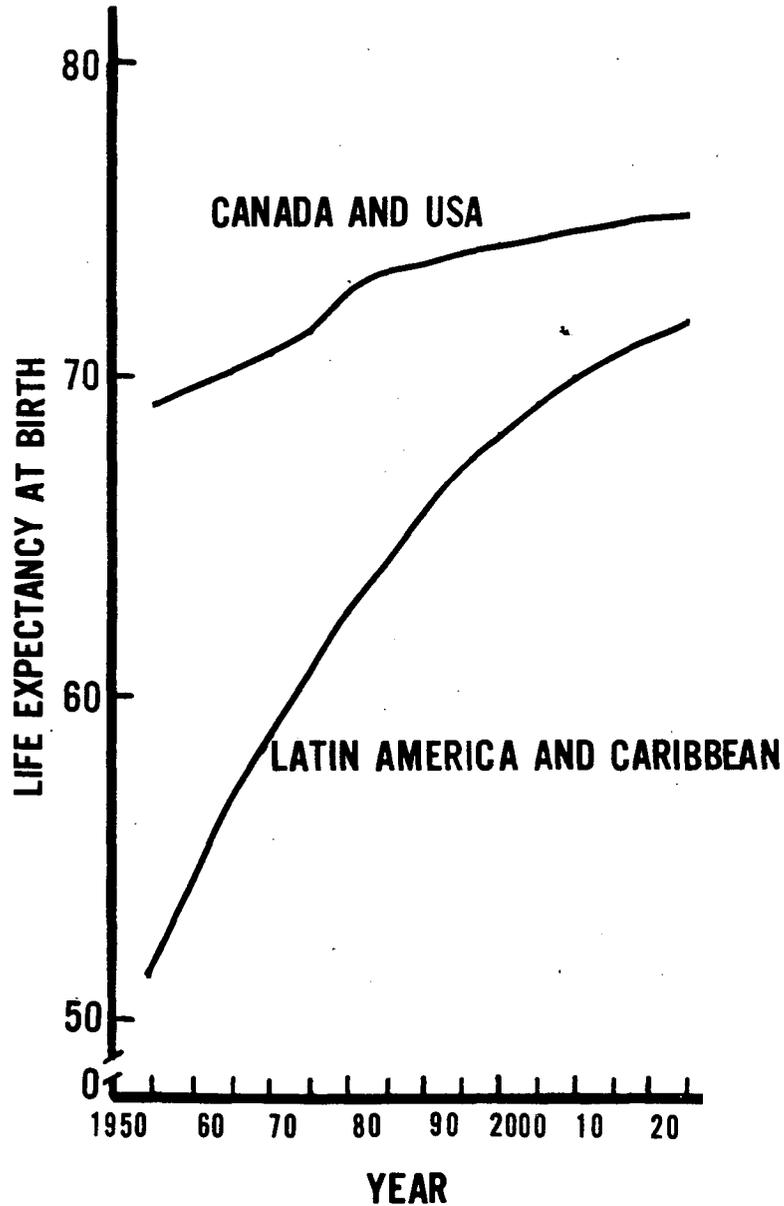
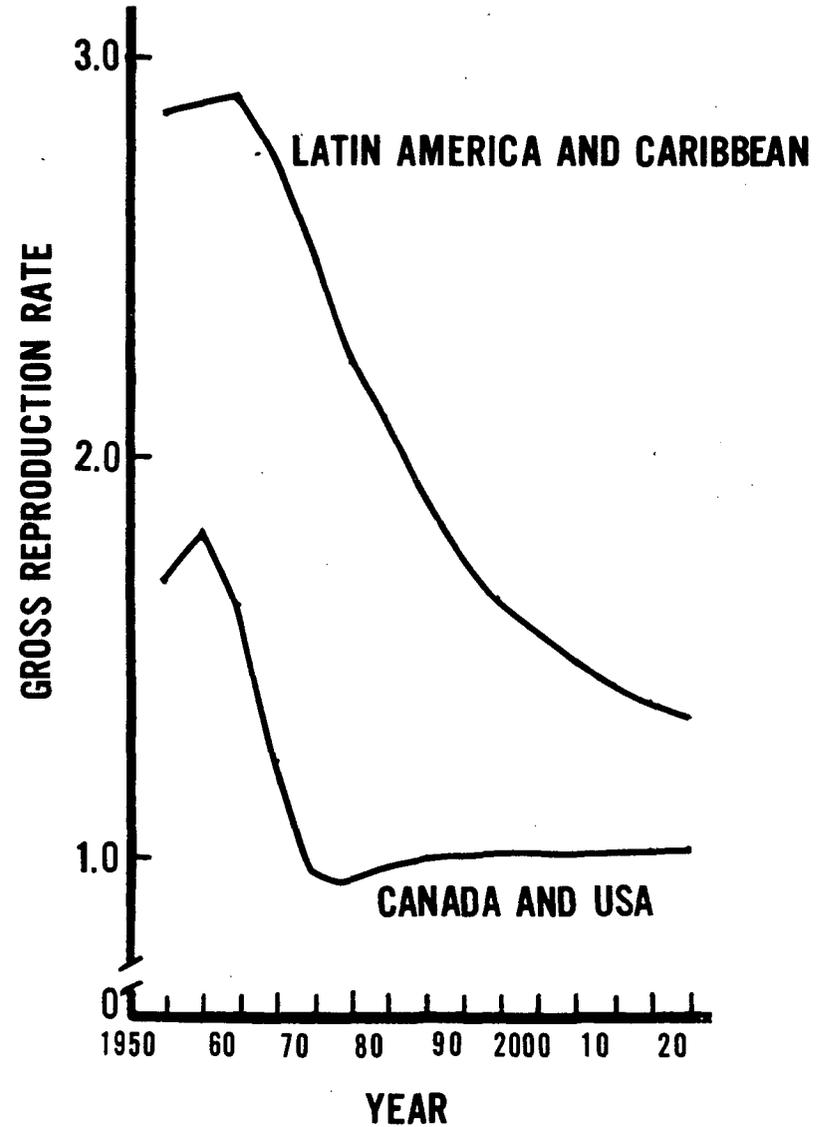


CHART NO. 4
GROSS REPRODUCTION RATE
1950-2025



be more pronounced in the countries of mainland Latin America, where the level of urbanization, i.e., the proportion of urban population, will grow to about 77 per cent of the total in the year 2000, a proportion reached in the United States of America and Canada together in 1980. The pace of urbanization, which reflects the growth of the urban population relative to the rural, is somewhat slower in the countries of the Caribbean, where the urban population should increase from 51 to 62 per cent of the total over the same period.

This rapid pace of urbanization is also seen in the growth projected for cities of different sizes. Since this kind of estimate is more difficult to project into the future for smaller cities, Table No. 14 presents data only for cities of one million inhabitants and over.^{13/} By the end of the century the population resident in cities of this size should account for almost half (49 per cent) of the urban population and almost two fifths (38 per cent) of the Region's total population. The proportions in the two developed countries are somewhat higher, those of the Caribbean country somewhat lower, and those of mainland Latin America fairly similar to the regional average. Except in the Caribbean subregion, the total population living in cities of this size is much larger than the rural population, as can be seen in Chart No. 5.

The greatest challenge, however, is expected from the increase in and growth of the largest cities. In 1980 the Region had 11 cities of more than four million inhabitants, aggregating 99 million persons. It is estimated that by the year 2000 this figure will have risen to 20 cities with an aggregate population of 184 million. Two thirds of this population --more than 122 million persons--should reside in the 12 major cities of mainland Latin America, which should double their population in the next two decades by a factor of 2.2. By that time the combined population of those 12 cities should be almost a million and a half more than the number of people that will then be living in the rural areas of that subregion.

Chart No. 6 shows the age and sex compositions of the urban population in the Region's developed and underdeveloped countries in the years 1980 and 2000. It can be seen that the population of both sexes becomes increasingly urban in the two groups of countries and that, as already seen, by the year 2000 the developing countries will have become about as urban as the developed ones. At the older ages, the level of urbanization in both groups of countries is much greater for women than for men, though there are marked differences in the urbanization profile between the sexes and the different ages. These differences in degree of urbanization result from a host of factors, which certainly include differences in migration and mortality rates.

^{13/} There are no standard criteria for determining the population that an urban settlement must acquire to qualify as a city.

Table No. 14

POPULATION IN CITIES OF ONE MILLION INHABITANTS AND MORE, NUMBERS OF CITIES,
AND PROPORTIONS OF URBAN AND TOTAL POPULATION IN THE REGION OF THE AMERICAS
1980 AND 2000

Region	Size (in millions)	1980			2000				
		Cities (number)	Population (in thousands)	Percentage (urban)	Percentage (total)	Cities (number)	Population (in thousands)	Percentage (urban)	Percentage (total)
Total	4.0 and more	11	99,342	23.2	16.2	20	184,214	27.2	21.3
	2.0 - 3.9	17	45,200	10.6	7.4	27	73,110	10.8	8.5
	1.0 - 1.9	31	42,974	10.0	7.0	55	73,866	10.9	8.5
Latin America and Caribbean	4.0 and more	6	55,840	23.5	15.4	12	122,450	28.6	21.6
	2.0 - 3.9	8	21,458	9.0	5.9	14	38,602	9.0	6.8
	1.0 - 1.9	13	17,551	7.4	4.8	29	38,921	9.1	6.9
Latin America	4.0 and more	6	55,840	25.2	16.8	12	122,450	30.5	23.4
	2.0 - 3.9	7	19,424	8.8	5.8	10	27,975	7.0	5.4
	1.0 - 1.9	11	14,496	6.5	4.4	28	37,860	9.4	7.2
Caribbean	4.0 and more	—	—	—	—	—	—	—	—
	2.0 - 3.9	1	2,034	12.9	6.6	4	10,627	39.4	24.6
	1.0 - 1.9	2	3,055	19.4	10.6	1	1,061	3.9	2.5
Canada and USA	4.0 and more	5	43,502	22.8	17.6	8	61,764	24.9	20.7
	2.0 - 3.9	9	23,742	12.5	9.6	13	34,508	13.9	11.6
	1.0 - 1.9	18	25,423	13.4	10.3	26	34,945	14.1	11.7

Source: Estimates and Projections of Urban, Rural and City Populations, 1950-2025: The 1980 Assessment, ST/ESA/SER.R/45. (New York, United Nations, Department of International Economic and Social Affairs, 1982).

CHART No. 5

ESTIMATED AND PROJECTED POPULATION ACCORDING TO URBAN AND RURAL RESIDENCE 1980 AND 2000

POPULATION
(in millions)

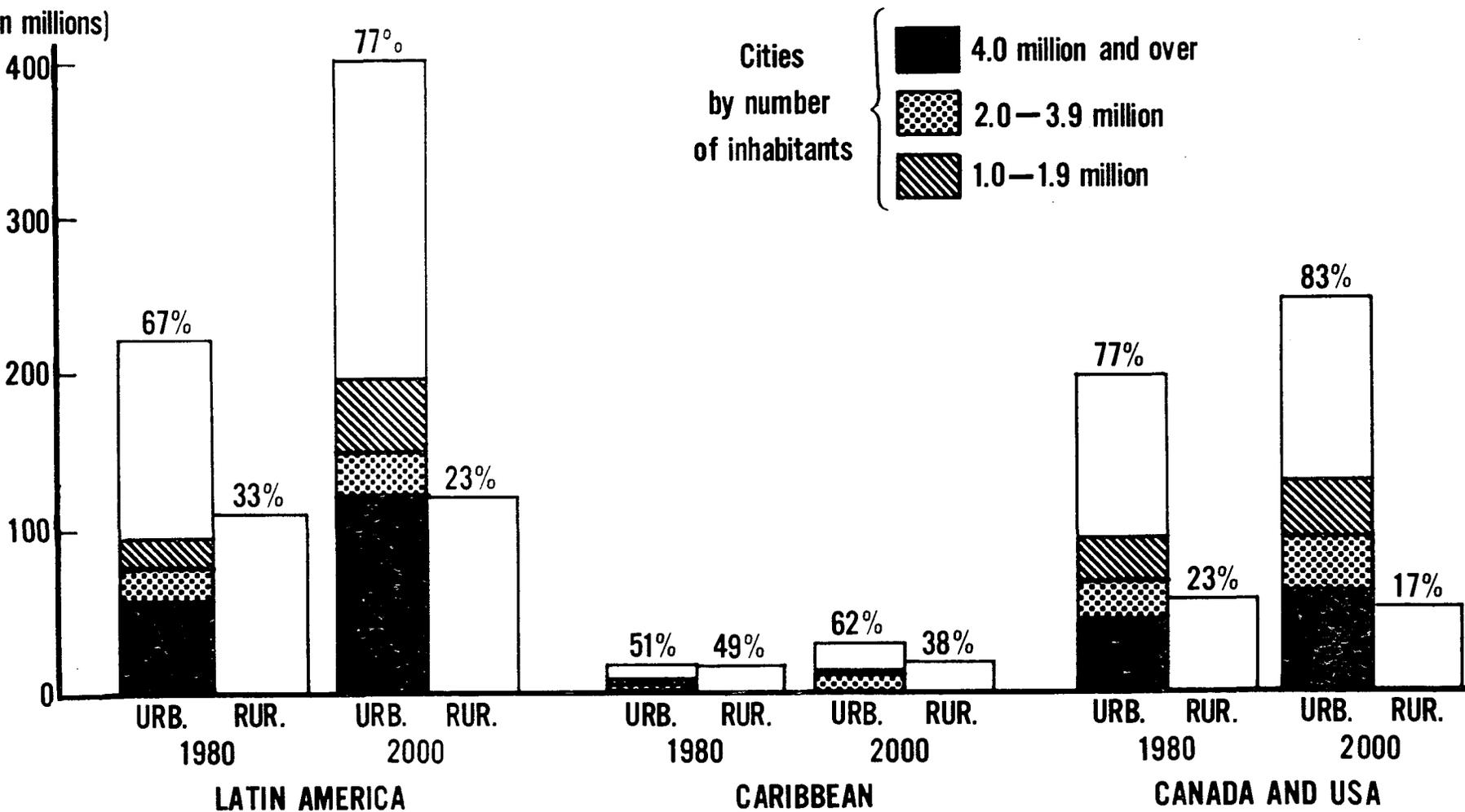
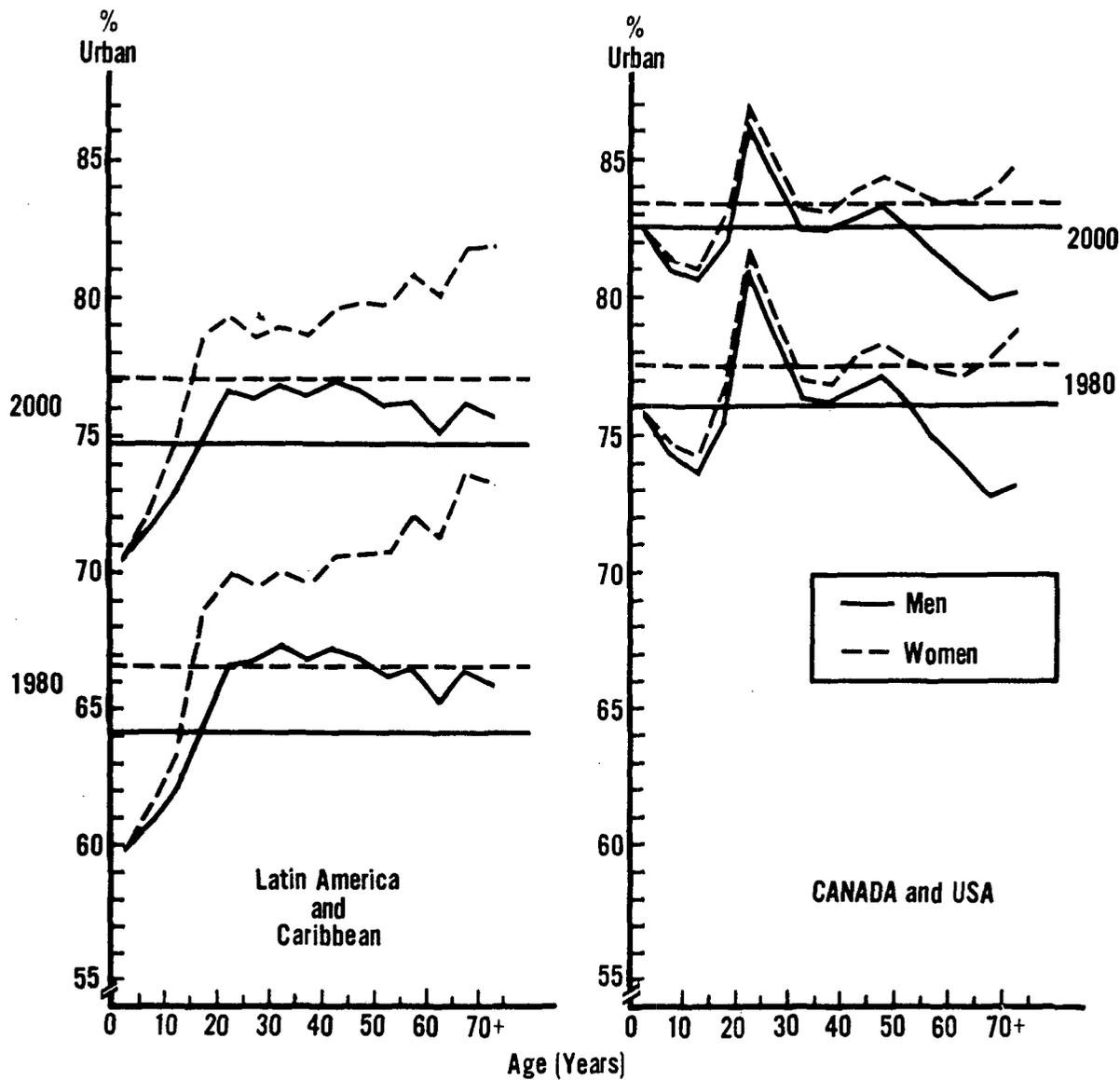


CHART No. 6
LEVELS OF URBANIZATION CLASSIFIED BY SEX AND AGE
1980 AND 2000



Another feature of the population of the Americas is its progressive aging. Table No. 15 and Chart No. 7 depict the structure of the population by major age groups in 1980 and 2000. In all but the two most developed countries of the Region, it is seen that the proportion of those under 15, though decreasing, will remain high, particularly in rural areas. In the developed countries, people 65 years of age and older constitute about 11 per cent of the population, almost two and a half times the proportion of this age group elsewhere in the Region. It has been seen, the proportion of the rural population is higher in the countries of the Caribbean than in those of Latin America; nevertheless, the population of the Caribbean is slightly older, though that of the Latin American countries will age somewhat faster. The number of persons in the Region 65 years of age and older will increase from 42 million to 61 million, and in the urban areas of the developing countries will more than double, from less than 11 million in 1980 to more than 22 million in the year 2000. The reason for this aging of the population is chiefly due to simultaneous declines in the fertility and mortality rates, though the migration of specific age groups may be a contributing factor; the large growth of the urban population appears to bear out this assumption.

Table No. 15

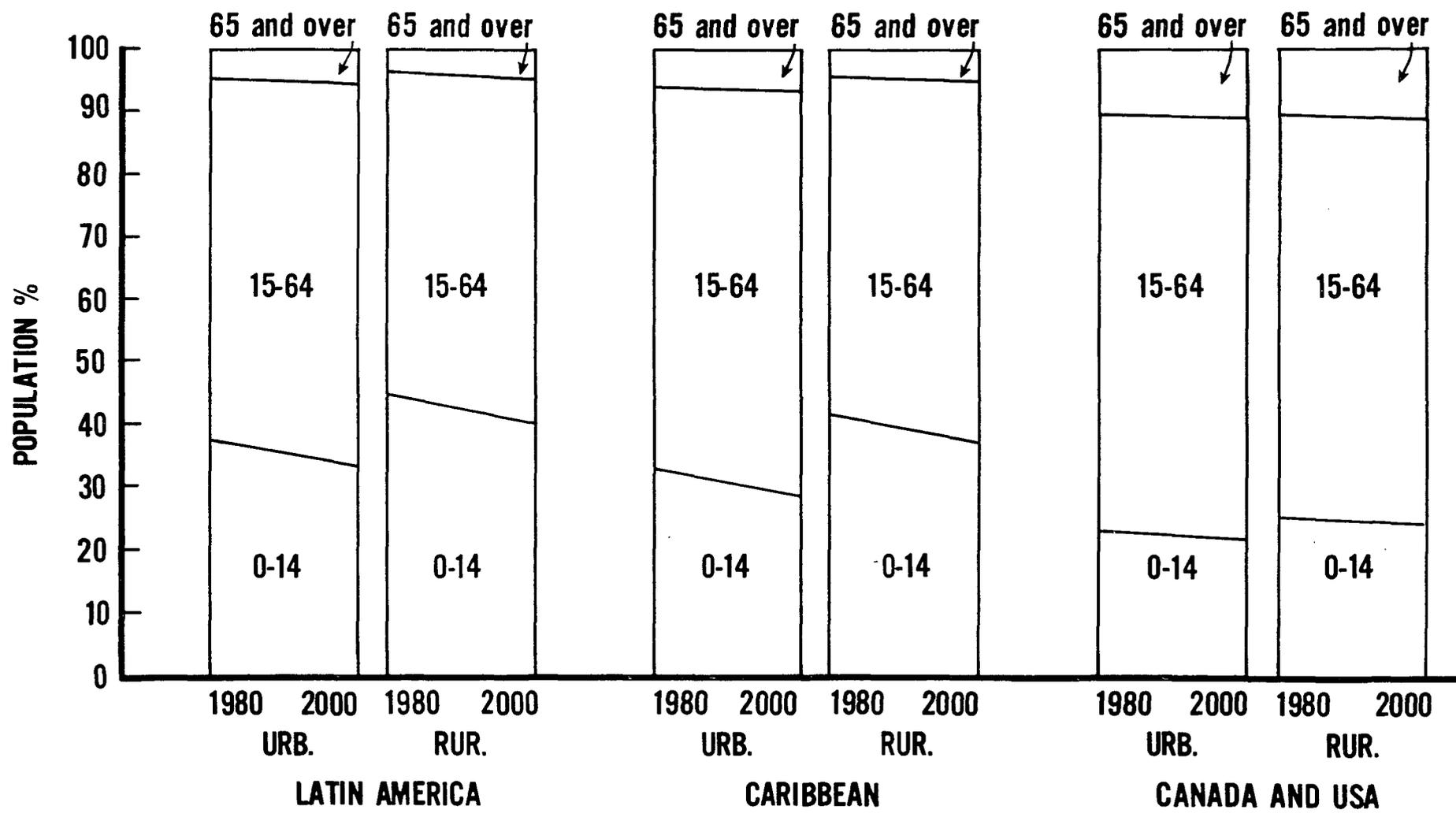
STRUCTURE OF THE URBAN AND RURAL POPULATION BY BROAD AGE GROUPS
REGION OF THE AMERICAS
1980-2000

Region	Age Groups	Population (in thousands)					
		Total		Urban		Rural	
		1980	2000	1980	2000	1980	2000
Total	Under 15	201,592	261,762	131,052	194,671	70,540	67,091
	15-64	368,235	541,828	266,251	432,454	101,984	109,374
	65 and over	41,712	60,962	30,848	49,434	10,864	11,528
Latin America and Caribbean	Under 15	144,760	196,101	88,484	141,155	56,222	54,946
	15-64	203,460	341,767	138,340	265,198	65,120	16,569
	65 and over	15,538	27,879	10,864	22,030	4,674	5,849
Latin America	Under 15	133,270	182,475	83,264	133,573	50,006	48,902
	15-64	185,869	314,639	128,779	247,521	57,090	67,118
	65 and over	13,917	25,347	9,927	20,312	3,990	5,035
Caribbean	Under 15	11,436	13,626	5,220	7,582	6,216	6,044
	15-64	17,591	27,128	9,561	17,677	8,030	9,451
	65 and over	1,621	2,532	,937	1,718	684	814
Canada and USA*	Under 15	56,886	65,661	42,568	53,516	14,318	12,145
	15-64	164,775	200,061	127,911	167,256	36,864	32,805
	65 and over	26,174	33,083	19,984	27,404	6,190	5,679

*Includes Greenland, Bermuda, St. Pierre and Miquelon,

Source: Age and Sex Structure of Urban and Rural Populations, 1970-2000: The 1980 Assessment. ESA/P/WP,81. (New York, United Nations, Department of International Economic and Social Affairs, Population Division, 1981).

CHART No. 7
STRUCTURE CLASSIFIED BY BROAD AGE GROUPS
OF URBAN AND RURAL POPULATION 1980-2000



B. OTHER FACTORS

Next, a number of tables will be presented illustrating the distribution of the political units of Latin America and the Caribbean, and of their populations in terms of the general fertility rate (Table No. 16), illiteracy (Table No. 17), per capita gross domestic product (Table No. 18), and availability of protein (Table No. 19). Owing to their obviously much higher level of development, this distribution leaves out Canada and the United States of America, which if included would be in the best category for each of those indicators, that is, in the lowest class for fertility and illiteracy and in the highest for gross product and protein supplies. It will be recalled that these two countries contain 40 per cent of the Region's population, and including of them would mask the problems still facing the developing countries.

The figures shown speak for themselves, but they do ignore part of the problem. They say nothing about the grave consequences of the world economic recession for the developing countries, particularly the steady decline of their employment capacity and in the level and distribution of their incomes.

A recent analysis estimates at 20 per cent the total proportion of underutilization (overt unemployment and underemployment) of the economically active population in 14 Latin American countries studied in 1980; in one of these countries the proportion was actually higher than 40 per cent.^{14/} A previous study had estimated that, in 1970, 40 per cent of the households in 10 Latin American countries were below the poverty line, and almost half of them below the indigence line, in one of them the figures going to the extreme of 65 per cent for poor households and 45 per cent for indigent households.^{15/}

Both studies were done before the recent worsening of the international economic situation, which from 1980 to 1983 may be characterized as a short-term contraction within a long-term one. The recurrent recessions of the seventies became progressively more severe and in the United States of America the recession of 1980 and 1981 became worse than any other in the postwar period.^{16/} This is all suggestive of an aggravation of the situation of unemployment and income distribution as described and,

^{14/} Norberto E. Carcía, "Growing Labour Absorption with Persistent Unemployment," CEPAL Review (Santiago, Chile, United Nations, Economic Commission for Latin America, No. 18, December 1982), pp. 45-64.

^{15/} Oscar Altimir, "The Extent of Poverty in Latin America," CEPAL Manuals (Santiago, Chile, United Nations, Economic Commission for Latin America, 1979).

^{16/} Economic and Social Progress in Latin America (Washington, D.C., Inter-American Development Bank, Annual Report 1982).

consequently, of its adverse influence on the national averages of some countries, which as early as 1980 indicated that they had reached or surpassed the minimum goals for life expectancy at birth and infant mortality.

Table No. 16

GENERAL FERTILITY RATE IN LATIN AMERICA AND THE CARIBBEAN
1980-1985

Rate (a)	Number of countries**	Population*	
		Number	%
Under 90.0	6	44,798	12.3
90.0 - 119.9	4	13,971	3.8
120.0 - 149.9	4	30,792	8.5
150.0 - 179.9	5	164,680	45.3
180.0 - 219.9	7	101,599	27.9
220.0 and over	2	6,424	1.8
Unknown	18	1,506	0.4
TOTAL	46	363,770	100.0

(a) Annual number of live births per 1,000 women between ages of 15 and 49 years.

*Source: Selected Demographic Indicators by Country, ST/ESA/SER.A/38, (New York, United Nations, Department of Economic and Social Affairs, 1980).

**Includes countries and other political units.

Table No. 17

ILLITERACY IN LATIN AMERICA AND THE CARIBBEAN

(Around 1980)

Illiteracy rate (a)	Countries**	Population* (in thousands)	
		Number	Percentage
Under 5.0	10	12,556	3.5
5.0 - 9.9	9	32,535	8.9
10.0 - 14.9	6	17,633	4.8
15.0 - 19.9	6	101,088	27.8
20.0 - 29.9	5	163,648	45.0
30.0 - 39.9	4	16,702	4.6
40.0 and over	4	19,495	5.4
Unknown	2	113	...
TOTAL	46	363,770	100.0

(a) In population over 14 years of age.

*Source: Statistical Yearbook, 1982 (Paris, UNESCO, 1982).

**Includes countries and other political units.

Table No. 18

PER CAPITA GROSS DOMESTIC PRODUCT
LATIN AMERICA AND THE CARIBBEAN
1980

GDP/Inhabitant (a)	Number of Countries**	Population*	
		Number	Percentage
2,000 and over	5	20,216	5.6
1,650 - 1,999	3	98,715	27.1
1,350 - 1,649	4	137,825	37.9
1,000 - 1,349	4	36,076	9.9
700 - 999	4	35,357	9.7
Under 700	4	19,867	5.5
Unknown	22	15,714	4.3
TOTAL	46	363,770	100.0

(a) United States dollars at constant prices of 1980.

*Source: Economic and Social Progress in Latin America (Washington, D.C.,
Inter-American Development Bank Report, 1982).

**Includes countries and other political units.

Table No. 19

PROTEIN SUPPLY
LATIN AMERICA AND THE CARIBBEAN
1978-1980

Proteins(a)	Number of countries**	Population in thousands*	
		Number	Percentage
90.0 and more	2	27,096	7.5
70.0 - 89.9	12	114,703	31.5
50.0 - 69.9	19	172,461	47.4
Less than 50.0	4	19,874	5.5
Unknown	9	29,636	8.1
TOTAL	46	363,770	100.0

(a) Per capita protein supplies (in grams) per day.

*Source: FAO Production Yearbook. Vol. 35, FAO Statistical Series No. 40 (Rome, 1982).

**Includes countries and other political units.

IV.

IMPLEMENTATION OF THE POLICIES

Ratification at the national level of the goal of health for all by the year 2000 affords an opportunity to translate national, regional and global policies into concrete measures. These measures are in two directions: one toward removal of the major restrictions to the development and operation of health care delivery services, and the other toward the accelerated development of those programs and services. For a start, nine countries have established national strategies and six of them have formulated plans of action for their implementation; two countries report that they are formulating their national strategies; in eight it is reported that health strategies are a component of the national development plans; and, finally, eight countries say they are taking steps to adjust their health plans to the priorities and demands of primary care. As an illustration of these initial activities, in four countries seminars on the Regional Plan of Action have been held at the national level, in addition to two seminars on community participation and intersectoral articulation in countries of the Caribbean. In general, the countries advise that they are assessing the implications of the Plan of Action for their national plan and situations.

Implementation of the strategies constitutes by definition not a static situation but a dynamic and highly changeable phenomenon, which the analyses that follow will endeavor to summarize. It must be mentioned firstly that the information obtained from the evaluation of the Ten-Year Health Plan for the Americas, and that generated since, is not enough for these purposes. This situation in itself conveys an idea of the innumerable constraints on the development of health services. Moreover, it is necessary to match and harmonize the postulates of the Regional Plan of Action with national realities and plans in relation to objectives, goals and resources, as well as with the concepts and even the language of the Plan of Action.

A. PLANNING AND DEVELOPMENT IN THE HEALTH FIELD

Formally established health plans exist in 70% of the countries, but even more of them are executing health development plans at a steadily accelerating pace. These health plans and development plans are aimed at attainment of the Hemisphere's goals and reflect ever more explicitly the intention of adopting the approaches of the Plan of Action, which strengthens the ideological basis of those development processes. In some aspects the situation is more promising than it was at the end of the Ten-Year Health Plan, not only because more countries now have national health plans, but because most of them are implementing effective development programs in the framework of those health plans. The planning function--which in most of the countries has been a cause and effect of those development

plans--has been solidly institutionalized in more than 80 per cent of the major institutions in the sector, to which it may be added that 20 countries have national planning laws and health sector units operating under the national planning system. In this field almost all the countries report two situations that have to be remedied: on the one hand, a lack of coordination among the institutions that make up the health sector and, on the other, a lack of information for the planning, conduct and evaluation of plans and programs.

B. PRIMARY HEALTH CARE

The concept of primary health care is being adopted and beginning to be incorporated into plans and programs in all the countries.

Using different language, the countries report highly deliberate efforts, with variable progress, to review their priorities and apply resources to the development and operation of integrated services so as to make them more easily accessible to the population segments and groups that are most vulnerable from the epidemiological and socioeconomic standpoints. This effort is reported not only in the organization of services in geographic areas where they were previously nonexistent, but in reorganizing the programs of conventional services as well. The trend most frequently seen is toward the expansion and strengthening of the service network with a view to making those services more easily accessible geographically, economically and culturally to the entire population, and to introducing in them a substantial component of promotion and prevention work with the family, in the community, and at places of work.

C. COMMUNITY ORGANIZATION AND DEVELOPMENT

This subject is conceptually much in evidence in health plans, but practical applications remain as scarce and as slow as at the end of the Ten-Year Health Plan, particularly in relation to extremely marginal communities. It may be said that the old causes of this problem subsist: Ignorance on the part of the institutional system of the realities and mechanisms of social action of communities, a negative or distorted perception of the institutional system on the part of the communities, and a lack of technologies for surmounting these impediments and of resources for launching programs of work to induce and multiply community health efforts. In recognition of these realities, schemes for the regionalization and decentralization of services are addressing the need for linkages between the institutions in the health sector and those in other sectors more directly concerned with community organization and development processes.

D. INTERSECTORAL LINKAGES

Only a few countries offer significant examples of intersectoral linkages, chiefly in the form of integrated development projects with food, nutrition and basic sanitation components. The regionalization of development that has become established in more than half of the countries contributes to this linkage, although, owing to political and managerial limitations, the predominant regionalization scheme is aggregative rather than integrative. Meanwhile, the integrated planning system operating at the national level in some countries is potentially a powerful instrument for intersectoral linkages whose effectiveness depends in any case on the extent to which the health sector is present in the national scheme. One of the most important constraints in this regard is a lack of interinstitutional linkages within the health sector itself which, in all but a very few countries, detracts from the sector's capacity for leadership, participation and negotiation in the concert of national development forces.

E. CHARACTERISTICS OF THE HEALTH INFRASTRUCTURE

In the physical infrastructure area the efforts of the countries are clearly directed at dealing with the net deficit and achieving a better balance in the distribution, allocation and the utilization of installed resources. With the aid of financial and technical inputs from the international development agencies, the countries are rapidly expanding their operating capacities in two of their principal components: physical infrastructure and institutional development, the latter directed at improving institutional and technical capacities to optimize the use of resources in solving problems. The volume of investments and operations suggests that in the last five years the countries and international agencies have maintained their efforts in this field, and there is also evidence of an improved rationality of physical development projects stemming from the introduction of more modern concepts in economics, planning, programming and maintenance.

Judging from the indicators suggested in the Plan of Action, managerial and financial aspects remain formidable obstacles to the development, effectiveness, efficiency and, above all, equity of health care delivery services. At the same time, however, by modernizing management technologies, particularly in the area of information handling, it is expected to make management more rational and effective because it is equipped with improved means for taking decisions and evaluating their results. Another promising trend observed in the countries is toward refining the financial information on the sector so that financing can be used as a regulating and coordinating tool for the major decisions on the development and management of health services. Meanwhile, the institutional fragmentation of the sector--both a cause and effect of managerial disarray and inequities in the application of resources--is being mended little by little by means of coordination and integration schemes under the firmer leadership of health ministries.

F. MANPOWER DEVELOPMENT

The development of human resources for health systems involves the establishment of policies and plans, capabilities in priority areas, the use of trained personnel, and the use of an educational technology suitable to the various components of the process.

In regard to the drafting of policies and plans, some countries have recently enunciated general guidelines for manpower policies as part of their national health policies. Most of these guidelines are specifically for the health ministry and some involve the social security administration as well, but have little to do with training establishments (universities). In consequence, plans in the human resource area have had very little practical effect except in countries with planned economies.

Up to a few years ago the need for health workers was very great and training of personnel in large numbers was necessary. Today, as the volume of training facilities has grown, the most urgent problem in the Region has become the utilization of this personnel and the adjustment of training in response to needs. The growth of the network of training facilities is illustrated in the next two tables:

Table No. 20

SCHOOLS OF HEALTH PERSONNEL

Schools of	Year	
	1972	1980
Medicine	160	300
Dentistry	105	160
Nursing	245	461
Veterinary Medicine	52	99
Nutrition and Dietetics	28	62
Auxiliaries	377	512

Source: Health Conditions in the Americas, 1973-1976, Scientific Publication No. 364; Health Conditions in the Americas, 1977-1980, Scientific Publication No. 427, PAHO/WHO; Diagnóstico de la Salud Animal en las Américas, Volumen I, PAHO/WHO, 1983; Guía Resumida de Facultades y Escuelas de Medicina de América Latina, April 1980, Pan American Federation of Associations of Medical Schools (FEFAPEM), Caracas, Venezuela; Food and Nutrition Program, PAHO/WHO.

Table No. 21

ENROLLMENTS

In schools of	Year		Average years of study
	1972	1980	
Medicine	155,000	300,000	7
Dentistry	75,000	118,000	5
Nursing	50,000	90,000	3.5
Auxiliaries	35,000	50,000	1.5

Source: See Table No. 20.

In addition to medical schools, there are 10 schools of public health, 15 for postgraduate work in social medicine, and more than 45 specific training programs in health administration. In the Region of the Americas schools of sanitary engineering and civil engineering programs help train the personnel needed for environmental health programs. Other health professions, such as those concerned with nutrition and social work, make important contributions to the training of personnel for health care delivery systems.

This expansion of the training network with no regard for a country's health policies has greatly increased the total number of health personnel (see Table No. 22), but does not mean that the people so trained are being properly utilized. In most of the countries, it is obvious that they are poorly distributed both geographically and among the levels of care. Besides, there are clear signs of unemployment, and underemployment, especially at the professional level.

In relation to the education and training of health personnel, great strides have been made in the area of educational planning, in the scientific preparation of programs and plans of study, in the evaluation of students, the process itself, and, lately, the performance of graduates, and in the use of instructional materials. All of this has been made possible by the extensive dissemination of educational technology and by teacher training for instructors. The educational technology centers have played a very important part here.

Moreover, educational planning has endeavored to base its conceptual framework on an integration of teaching with health care delivery services, in what is seen as a two-way relationship aimed at the adjustment of both processes to the realities of the health situation in the countries. These principles have been applied at all levels and to all categories of health personnel, particularly to the new types of personnel needed for primary care.

Most of the countries have adopted programs combining supervision with continuing education as part of their personnel utilization activities, but few have developed personnel administration as a career or as a subject of training programs.

Table No. 22

HEALTH PERSONNEL

TYPE	Numbers		Ratios	
	1972	1980	1972	1980
Physicians	197,200	343,300	7.0	9.2
Dentists	64,464	114,000	2.3	3.0
Nurses	76,420	160,000	2.7	4.3
Pharmacists	36,121	37,019	1.2	0.7
Sanitary Engineers	9,350	12,000	0.3	0.3
Veterinarians	15,550	47,900	0.5	1.2
Auxiliaries	264,482	395,000	9.8	10.6

Source: See Table No. 20.

In the area of scientific and technical information, the countries' holdings of health literature have deteriorated considerably because of the high cost of journals and books. This situation is illustrated in Table No. 23. BIREME, and the Documentation and Health Information Center at PAHO Headquarters, and the network of national centers is endeavoring to rectify this situation.

Table No. 23

SUBREGIONAL DISTRIBUTION OF HEALTH LIBRARIES

Subregion	Number of Libraries*							Total
	<u>0</u> 49	<u>50</u> 99	<u>100</u> 149	<u>150</u> 293	<u>300</u> 499	<u>500</u> 799	1,500	
Central America and Spanish-speaking Caribbean(1)	27	2	7	6	-	2	-	44**
Andean Region(2)	64	18	8	6	6	2	-	104
Brazil and the Southern Cone(3)	156	31	22	20	11	8	1	149
Total	247	51	37	32	17	12	1	397

* By size of journal collection.

(1) Guatemala, Honduras, Nicaragua, Costa Rica, Panama, and the Dominican Republic.

(2) Venezuela, Colombia, Ecuador, Peru, and Bolivia.

(3) Brazil, Uruguay, Argentina, Paraguay, and Chile.

** To this total must be added the libraries in Mexico, which were not considered in the present study.

Finally, for the use of textbooks and other educational materials most of the countries have agreements with PAHO's Expanded Program of Textbooks and Instructional Materials.

G. RESEARCH DEVELOPMENT

The countries of the Region are accepting the necessity for health research policies and they participated in the Pan American Conference on Health Research Policies, held in Caracas, Venezuela, in 1982. A final declaration on Research Policies was signed at the conclusion of the Conference.

There are 21 Research Councils or analogous bodies with the countries of the English-speaking Caribbean cooperating in a Commonwealth Caribbean Medical Research Council. The training of managers in health research has begun at the regional level and in at least two countries.

Data are available on researchers in eleven Latin American countries and information is being collected and analyzed from four others. The data show that researches comprise 0.8 per cent of the total health personnel, 3 per cent of the scientists and there are 1.91 researchers per 100,000 population. There are few data from individual countries on the quantity of research being done.

There are 147 collaborating centers serving as institutions for research and training in 11 areas of health. The centers are in 13 countries, but 60³ per cent are in the United States of America.

H. FINANCING OF HEALTH CARE

In establishing a baseline from which to measure progress, ideally it should be possible at least to account for all the sources of finance and their relative contribution to total health spending in the Region. This is not currently feasible, for three reasons: a) very little is known about private (out-of-pocket) expenditures by consumers; b) the multiplicity of public institutions creates accounting difficulties; and c) expenditures may easily be double-counted (or sometimes missed altogether) under arrangements by which private expenses are reimbursed by the public system, social security medical services are provided through public facilities, or private insurance shares costs with the public system. In consequence, only a few generalizations can be made about regional health care financing:

1) Countries now spend roughly 5 to 6 per cent of GNP on health, the share having risen substantially in recent decades. The share is higher as income per head is higher and as the coverage by the public system is greater. A large fraction is absorbed by hospitals, with relatively small amounts (and even smaller expenditures per patient) at the first level of care. Personnel costs are the largest single component of spending at all levels.

2) Private spending rises faster than income, so that private expenditures tend to expand relative to public financing during times of economic growth and to contract in times of hardship--just when medical needs are likely to increase. This indicates that public health financing needs to be counter-cyclical, and especially that in times of budget shortage it is important to protect levels of public health spending. Private expenditures for drugs and simple consultation are made by consumers at all income levels, but private spending for specialists and especially for hospital care is limited to the richest households, making the public share greatest for the most expensive services.

3) A large share of public spending, at least in several countries, now occurs through the social security system (either by direct provision or reimbursement) rather than through ministries of health. There is no clear evidence that this has any effect on unit costs or on the use made of the system, nor does any institutional arrangement show a systematic superiority to others.

4) While the amount of extra spending required to extend coverage to the entire population over the next two decades can be estimated so that it does not appear to be impossibly large, it is not clear how this expansion can be financed, even assuming that other constraints (human, managerial, cultural, etc.) can be resolved. What is especially important--and currently unknown--is what mixture of technology will be used, since this may have a major impact on costs per patient. Among other issues, this involves consideration of how much care can be shifted from curative to preventive emphasis, with attendant cost saving, and how much behavior can be modified to reduce the need for health care.

The financing of health care thus seems to be characterized, at present by three problems--that of ignorance of the current situation, except in very general terms; that of the current economic crisis, with its attendant pressure to reduce all forms of public spending in order to control internal deficits; and that of finding the sources of finance for any substantial expansion of the public health care system. This third problem will exist even if the other two are resolved in the immediate future.

Therefore, far from having a well-established baseline, the countries of the Region face the need to learn about the sources and uses of finance in their health systems. This will require understanding not only the sources of public money but also the amounts spent privately and how the latter depend on the availability and cost of public services; and not only the sources but also the flows of finance, through institutions, to particular providers, goods and services.

V.

CONCLUSION

The health situation differs markedly among the countries of the Region and within each country, with large masses of people in situations that are decidedly worse than the national averages convey. In the light of an uncertain economic future, this picture should establish the basis on which the Governments of the Region reaffirm their commitment to the goals and objectives they approved in the Governing Bodies of PAHO and WHO.

The challenge that the Member Governments have decided to confront is of disquieting magnitude: it requires from the onset the implementation of appropriate measures, and the monitoring of the process toward health for all. The objectives and goals approved in 1980 and ratified in 1981 "are aimed at insuring the specific contribution of the health sector to reducing social and economic inequalities"^{17/} among and within the countries. Hence, this commitment goes far beyond the attainment of minimum national goals.

^{17/} Health for all By the Year 2000. Strategies, Official Document 173 (Washington, D.C., Pan American Health Organization, 1983 Reprint), page 147.

See also: Plan of Action for the Implementation of Regional Strategies. Official Document 179, (Washington, D.C., Pan American Health Organization, 1982), page 15.