# PART I

## Chapter 1

# SITUATION AND TRENDS OF MATERNAL AND CHILD HEALTH IN LATIN AMERICA AND THE CARIBBEAN

**Dr. João Yunes**
**Dr. Adrián Díaz**

## I. Introduction

Despite the adverse economic situation of the past decade, the principal health indicators in Latin America and the Caribbean have improved significantly. The eradication of poliomyelitis is one of the most prominent signs of this progress. Nevertheless, an analysis of regional and national averages of health indicators reveals marked differences between and within countries. In many cases, there has even been a widening of the gap between Latin America and the Caribbean and the most developed regions of the world.

This situation of inequity, coupled with the shift in the epidemiological profile and the profound changes in the State seen in the majority of countries in the region, make it essential for the health sector and society as a whole to reorient current strategies in order to ensure that the goals proposed at the Alma-Ata conference and at the World Summit for Children can be achieved.

The sections that follow describe some of the changes that have occurred in the principal health indicators, in particular among children under 5 and women of childbearing age. Some emerging problems are also examined, and the basic actions that the health sector must take in order to help improve the quality of life for the region's population are discussed.

## II. Demographic Characteristics

Over the past 40 years, Latin America and the Caribbean have undergone major demographic changes, which have been reflected in increased life expectancy at birth, decreased infant mortality, and accelerated urbanization.

The population growth rate has declined in the last four decades, falling from an annual rate of 2.7% during the five-year period 1950-1955 to 1.79% in the period 1990-1995 *(1)*. This has been due mainly to a decrease in the total fertility rate, which dropped from 5.88 children per woman of childbearing age to 3.5 during the same period *(1)*. This decline has not been uniform across the region, however. The countries of Central America and the Andean area, for example, have registered smaller reductions than those of the English-speaking Caribbean and the Southern Cone.

During the same period, the region has seen life expectancy at birth increase by almost 17 years, and it is slowly approaching the levels observed in the world's most highly developed regions. The averages in Latin America and the Caribbean now exceed those of Asia and Africa. However, these averages mask significant differences between the countries of the region. These differences are reflected, for example, in the gap that exists between Costa Rica (76.3 years) and Haiti (56.6 years), where life expectancy at birth is only slightly higher than the average on the African continent.

As a consequence of the aforementioned changes (decrease in total fertility and increase in life expectancy at birth), the maternal and child population[1] has decreased in percentage terms during the past 40 years, although in absolute terms, it has continued to grow (Table 1). This growth has placed a tremendous additional burden on health services, which have not grown or expanded to the same extent.

[1] This group includes children, adolescents, and women of childbearing age.

In regard to infant mortality, estimates for the period 1990-1995 (46 per 1,000 live births) place Latin America and the Caribbean in an intermediate position with respect to other regions of the world. Nevertheless, rates in this region are still 4-6 times higher than in Europe (11 per 1,000 live births) or North America (8 per 1,000) *(1)*. In other words, the region's infant mortality rate (IMR) for the five-year period 1990-1995 is about the same as the rate registered in the United States in 1940 *(2)*.

Here again, there are significant differences between countries. Some, such as Barbados, Bermuda, Chile, Cuba, Costa Rica, and Jamaica, have an IMR of under 15 per 1,000 live births, while others, including Bolivia, Haiti, and Nicaragua, have rates of over 70 per 1,000. The differences are even more striking if the values at the two extremes of the spectrum are compared: Haiti, with an IMR of 133 per 1,000 live births, which is 13 times higher than Cuba's reported rate of 10.2 per 1,000 live births *(3)*.

Just as there are differences between countries of the region, there are differences within countries, which reflect the impact of marked social inequalities on the health conditions of the population. Differences in IMR are also closely linked to socioeconomic variables such as sex, maternal age and educational level, birth spacing, place of residence, housing conditions, social class, and occupation of the head of household *(4)*.

Demographic and health surveys (DHS) carried out in various countries of the region *(5, 6)* have demonstrated the importance of the variables mentioned and have revealed that one of the most influential variables is maternal educational level.

For example, children of illiterate women are three times more likely to die before reaching the age of 1 than are children whose mothers have a secondary and/or university education. A similar, though less pronounced, phenomenon is seen when the interval between births is less than 2 years (Table 2).

Another important demographic change has been the extremely rapid and disorganized process of urbanization that has taken place in the region in recent decades. According to data from the United Nations *(7)*, the percentage of urban population rose from 41.5% in 1950 to 71.5% in 1990. This figure is expected to reach 76% by the end of this century, a proportion similar to that found in the most developed regions of the world.

Growing migration from rural areas to cities has given rise to a number of megalopolises in the region.[2] These sprawling urban centers are surrounded by enormous slum areas, where millions of people live without access to basic health, education, sanitation, transportation, and electricity services. At the same time, these people run a greater-than-average proportional risk of becoming ill and dying.

Another crucial aspect of this migratory phenomenon within the general demographic transition under way in the region is migration outside and within some countries. A notable example is the case of the indigenous population of Guatemala (some 250,000 refugees and more than a million displaced persons within the country, according to the Office of the United Nations High Commissioner for Refugees–UNHCR). The settlement of indigenous refugees in border regions in

[2] By the year 2000, Latin America will have four cities of more than 10 million inhabitants.

Mexico, whether in camps or scattered settlements, has led to significant changes in local epidemiological profiles over the last 15 years.

Several thousand of these refugees are being relocated to their places of origin within Guatemala after spending more than a decade away from their communities. This creates new problems, for example with regard to access to basic environmental sanitation services and health services in general.

## III. Morbidity and Mortality Profile

The decrease in the number of deaths, especially in the under-5 age group, has been accompanied by a gradual change in the morbidity and mortality profile of the maternal and child population. This change has been shaped basically by the combination of the "traditional" pathologies in the region, including communicable diseases, with other phenomena of growing importance, such as chronic diseases, violence, AIDS, and developmental disorders of children and young people.

### 1. Mortality by cause in children and adolescents

The pattern of mortality among children under the age of 1 year and between 1 and 4 years has changed in recent times, reflecting the positive impact of efforts to control infectious and contagious diseases.

Among the most effective of these control measures have been immunization, oral rehydration therapy, standard case management for pneumonia and other acute respiratory infections, and basic sanitation improvements.

Indeed, between the five-year periods 1965-1969 and 1985-1989, 16 countries of the region[3] experienced a dramatic decline in deaths from communicable diseases.[4] Among children under 1, this group of causes dropped to second place as a cause of death, behind conditions originating in the perinatal period[5] (Figure 1).

This same trend is seen in the case of mortality from diarrheal diseases and acute respiratory infections (ARI) among children under 5 years of age *(8, 9)*. Nevertheless, diarrheal diseases and acute respiratory infections remain among the leading causes for outpatient medical consultations and hospital discharges. In some countries, they continue to be the leading cause of death in the pediatric population.

Among children under 1, perinatal causes are the leading causes of death. Within this group, the principal causes of death are maternal and fetal malnutrition, infection (ovular, fetal, neonatal), dystocia, iatrogenic causes, fetal or neonatal hypoxia, congenital anomalies, and prematurity.

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[3] Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Mexico, Nicaragua, Panama, Peru, Puerto Rico, Trinidad and Tobago, Uruguay and Venezuela.

[4] "Communicable diseases" include all infectious and parasitic diseases, except AIDS.

[5] "Certain conditions originating in the perinatal period" include all causes listed in Section XV of the International Classification of Diseases (ICD), which include maternal conditions and obstetric complications affecting the fetus or newborn (slow fetal growth, immaturity, hypoxia, birth asphyxia); respiratory conditions of the fetus and newborn; infections of the neonatal period; and ill-defined conditions originating in this period.

Most of these conditions can be prevented through basic health interventions, such as prenatal care and institutional delivery, or resolved through health services of acceptable quality.

Mortality in the group aged 5-14 years has also shown a substantial decline in recent decades. However, there are significant differences between countries of the region. For example, the adjusted mortality rate for all causes during the period 1985-1989 in Canada (22.8 per 100,000 population) is almost 6 times lower than the estimated rate in Ecuador and Peru (129 per 100,000 population).

The ranking of causes of death in this age group has shown no change over the last 20 years. External causes continue to rank first, followed by communicable diseases.

Of the deaths attributed to external causes, the majority are due to traffic accidents.[6] This phenomenon can be explained, inter alia, by the rapid and disorderly process of urbanization, the increase in drug abuse and alcoholism, lack of enforcement or non-existence of basic safety regulations, and absence of appropriate accident prevention and driver education programs *(3)*.

**2. Maternal mortality**

The region has made significant progress with regard to this indicator in recent years. However, maternal mortality remains a serious problem, especially in countries such as Haiti and Bolivia, which have maternal death rates that are more than 50 times higher than those seen in Canada and the United States *(10)*.

Maternal mortality, like perinatal mortality, is clearly associated with levels of institutional childbirth (Table 3) and the quality of perinatal care.[7]

In countries with medium coverage levels (50%-75%),[8] the persistence of high maternal mortality rates is indicative of severe deficiencies in institutional care. This situation points up the need for efforts aimed not only at achieving universal coverage but at improving the quality of the care provided.

**3. Malnutrition**

Although child nutrition is a central feature of all maternal and child health programs, it is not possible, with existing information, to accurately determine the magnitude of the nutritional disorders that affect children under 5 years of age in the region.

This situation is due, among other reasons, to the great diversity of information sources used (national surveys, local surveys, information from health services), as well as to differing reference standards (national curves or the reference standards established by the United States National Center for Health Statistics–NCHS), cut-off points (-2 or -3 standard deviations), or age groups included in each study.

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[6] The proportion of deaths from external causes due specifically to traffic accidents ranges from 29% in Argentina to 52% in Canada.

[7] More than 90% of maternal deaths are due to "direct obstetric causes," i.e., complications of pregnancy, childbirth, or the puerperium. The most important causes are toxemia of pregnancy, hemorrhage, abortion, and complications of the puerperium.

[8] The cases of Jamaica and Guyana might be explained by the fact that, owing to the small size of the population, relatively minor variations in the number of maternal deaths translate into high percentages.

Based on available data, the proportion of children suffering from overall malnutrition (low weight-for-age) has decreased in the past 15 years in all countries of the region[9] (Table 4). However, owing to population growth, there has been an increase in the number of children under 5 years of age who are affected by some degree of malnutrition. Current estimates put the figure at around 7 million *(11)*.

As for variations within countries, the demographic and health surveys indicate that, like infant mortality, the three anthropometric indicators (weight-for-age, weight-for-height, and height-for-age) vary significantly according to sociodemographic variables.

Another manifestation of malnutrition is low birthweight (under 2,500 grams), which is a major concern in the Region of the Americas, given its negative effect on perinatal and infant morbidity and mortality. In most of the countries, more than 60% of cases are due to intrauterine growth retardation (IUGR).[10] This situation differs from that in the industrialized countries, where low birthweight is correlated with prematurity *(12-15)*.

Data obtained from 11 countries of the region show that more than 80% of them fall short of the goal established for the year 2000, i.e., reduction of the rate of low birthweight to less than 10% of all live births. It must be borne in mind that the information available is not always representative of the national average, but rather is often specific to certain regions or even to certain maternity hospitals. This situation is attributable to several factors, including the fact that institutional delivery coverage levels remain low in many countries, which makes it difficult to collect accurate information.

## 4. AIDS

AIDS has a dramatic double dimension in the maternal and child population, inasmuch as it not only leads to the illness and death of infected individuals but it may also deprive children of one or both parents.

The Region of the Americas accounts for approximately 51.5% of all AIDS cases reported worldwide since the beginning of the pandemic, which would put the number of affected individuals at close to a million. However, based on estimates of the true number of cases (3 million), the proportion attributed to the Americas falls to 25% of the total. This situation reflects the Region's comparative advantages over the rest of the world with regard to epidemiological surveillance *(16)*.

Pediatric cases account for 1.7% of all reported cases in the Americas (11,052 reported cases as of 10 December 1995). In most countries, the proportion of pediatric cases is less than 5%. The exceptions are several countries of the Caribbean, such as Antigua and Barbuda, the Bahamas, the British Virgin Islands, French Guiana, and Jamaica, where the proportions range from 6.8% to 20% of all reported cases *(17)*.

[9] With the exception of Guatemala.

[10] IUGR, in turn, is associated with low socioeconomic levels (linked to low levels of education, poor living conditions, and limited access to health services, among other factors), maternal malnutrition, infection, altitude, toxemia of pregnancy, smoking, hemorrhage, repeated abortions, previous children with low birthweight, diabetes, cardiovascular disease, multiple pregnancy, hyperemesis, and genetic factors.

Given the sustained increase in the number of individuals infected annually,[11] most of them through sexual transmission, the annual number of cases is expected to continue to rise. This situation could lead to a change in the relative importance of AIDS as a cause of infant and under-5 child mortality *(18, 19)*, which points up the need to intensify prevention and health promotion efforts, as well as adapt health services to respond to this complex pathology.

### 5. Problems of cognitive and psychomotor development

Since the Alma-Ata conference in 1978, the importance of child development and the need for appropriate monitoring of psychomotor growth and development have been stressed. In practice, however, efforts have been oriented primarily toward ensuring child survival through well-known interventions such as immunization, control of diarrheal diseases and acute respiratory infections, monitoring of physical growth, and promotion of breastfeeding.

As was noted above, this strategy has proved successful, and as a result of its application many more children born in the region now reach their first birthday. However, there is a need to complement interventions aimed at reducing infant mortality with concrete activities aimed at ensuring an acceptable quality of life for the "survivors."

Although there is no regional information on the prevalence of emotional, behavioral, and learning disorders in the population under the age of 18, based on studies conducted in several countries,[12] the rates in the region are estimated at between 10% and 20%. In other words, as many as 17 million children and adolescents between the ages of 4 and 16 may be suffering from some degree of psychiatric illness that would require medical intervention.

### 6. Abuse and abandonment

One of the corollaries to the process of urbanization and the severe economic crisis in recent years has been the presence on the streets of cities throughout the region of growing numbers of children who drop out of school and enter the labor market.

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[11] Based on estimates, the number of individuals infected each year will continue to rise steadily until the end of the next five-year period. Hence, the number of seropositive persons in Latin America and the Caribbean is expected to increase from 1.3 million in 1994 to slightly more than 2 million in the year 2000.

[12] The principal studies include the following:

(a) A study of the prevalence of psychiatric disorders in schoolchildren aged 6-11 in Santiago, Chile, where a prevalence of 14.4% was found for males and 16.5% for females (*20*).

(b) Studies conducted by WHO, which indicate that 15%-25% of children seen at non-specialized health centers have psychosocial problems (*21*).

(c) The prevalence of psychiatric disorders in a sample of U.S. children was found to range from 10% to 20%. Of these disorders, 2% were classified as severe psychiatric disorders, 7%-8% as moderate, and the remainder as mild (*22*).

(d) A study of psychiatric disorders conducted in Puerto Rico in the population between 4 and 16 years of age found the prevalence of moderate and severe psychopathologies to be around 16% (*23*).

These "street children," whose number is difficult to determine,[13] are exposed from an early age to numerous physical, social, and psycho-affective risks, which pose a serious threat to their normal growth and development *(24-27)*. This complex phenomenon, which is closely linked to the situation of poverty and exclusion in which millions of the region's families live, requires an integrated approach that will make it possible not only to address the problem but also to prevent it from occurring.

Domestic violence against children and adolescents—which may take the form of physical, sexual, or emotional abuse—is another problem that has aroused growing concern among health professionals. Unfortunately, lack of reliable data and studies of national scope in most countries of the region make it difficult to accurately determine the magnitude of the problem.[14] Nevertheless, given the association that exists between violence and poor living conditions,[15] it is reasonable to assume that the number of child and adolescent victims of violence and abuse in the region is rising steadily.

To address the problems associated with social marginalization and domestic violence, the health sector must adapt its strategies and orient its efforts toward working with other sectors and increasing community involvement. At the same time, it must focus on prevention of new cases, early detection, and integrated treatment of affected individuals and their families with a view to reducing the serious physical, psychological, and social repercussions of these problems.

## IV. Health Sector Reform

As a consequence of mounting external debt, structural weaknesses in productive systems, and international terms of trade, the majority of Latin American countries have been immersed in an economic crisis of tremendous magnitude. This crisis has led to growing poverty and indigence, increased unemployment, and exacerbated inequities in most countries of the region *(38-40)*.

In response to this situation, a variety of structural adjustment programs have been introduced with a view to reducing fiscal deficits, controlling inflation, and reviving the economy. At the same time, many countries have initiated a process of political and administrative decentralization aimed at giving the provinces, states, and regions greater responsibility for the management and use of resources.

This ongoing process of change, which is at various stages of progress in many countries of the region, has been accompanied by a process of health sector reform aimed basically at addressing

[13] The characteristics of this group and the diverse categories used to classify it make it difficult to estimate the number of street children at the regional, or even the national, level. Nevertheless, based on available information, it is clear that the problem is growing and that specific strategies for addressing it are needed.

[14] Most of the studies currently available are from developed countries (*28-31*). Moreover, the diversity of methodological designs, the categories used, and the age groups included in the various studies make it difficult to establish comparisons between different countries and regions or to determine the trend of the phenomenon.

[15] Numerous studies have shown that abuse occurs more frequently in the most underprivileged segments of society—i.e., those segments in which unemployment or lack of stable employment, low wages, social dislocation or isolation, and a history of parental violence or abuse are common (*30-37*).

problems in the organization and financing of health systems and services in order to achieve better coordination between the public and private subsectors and make more effective use of available resources *(40, 41)*.

The new model must provide a way to expand the coverage of services and ensure quality of care in order to reduce the inequities that currently exist in terms of the right to health.

## V. Final Considerations

From the foregoing, it can be concluded that, despite a severe economic crisis, the region has achieved substantial improvement in the principal health indicators. Nevertheless, not all groups have benefited equally from these improvements, as evidenced by the marked differences that exist between countries and between social groups within countries.

It is clear that there has been a change in the region's epidemiological profile, which is characterized by the persistence of communicable diseases, some of which are recurrent, as in the case of cholera, malnutrition, and some obstetric pathologies. At the same time, the epidemiological profile also includes problems that are harder to solve, such as AIDS, chronic noncommunicable diseases, violence, and developmental disorders.

In the face of this complex situation, the health sector must adapt its strategies in order to achieve an integrated and comprehensive response to health problems. It must also enlist the active participation of all the various sectors, disciplines, and social actors that play a part in the health-disease process.

Current processes of political and legal-administrative decentralization, health sector reform, and strengthening of services at the local level afford a unique opportunity for the development of health care models that will ensure higher levels of coverage, integrated and intersectoral action, social participation, and sustainability of the progress achieved.

From the conceptual and operational standpoints, the process of human growth and development also represents an opportunity for integrating activities in the areas of prevention, health promotion, and care and treatment for the maternal and child population.

The State and civil society must work to ensure that the changes that are taking place will contribute to the improvement not only of mortality and morbidity indicators but also of living conditions for the population of the region.

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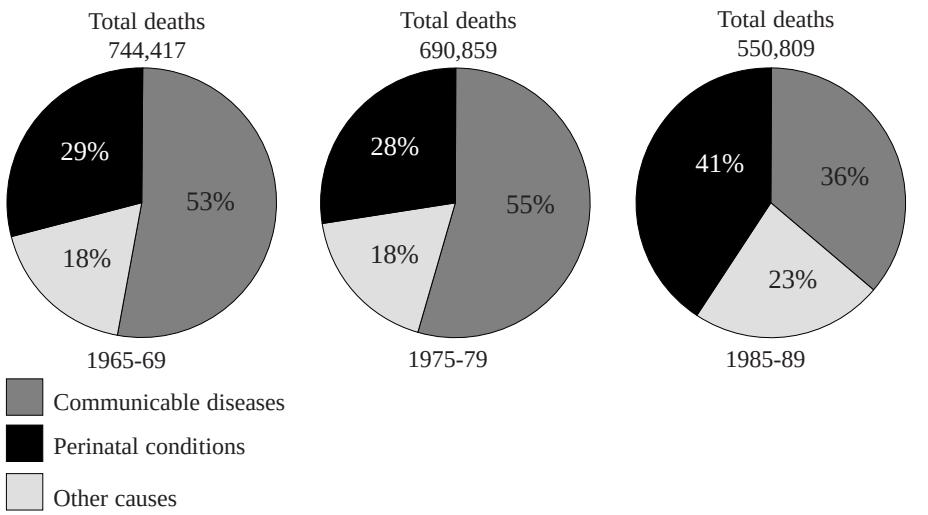
## VII. Annexes

**Figure 1**
**Number of deaths by cause and total deaths in children under 1 year of age in Latin America and the Caribbean during the periods 1965-1969, 1975-1979 and 1985-1989.**




Source: Pan American Health Organization, Program on Maternal and Child Health and Population, based on data from Organización Panamericana de la Salud. *Estadísticas de la Salud, Edición de 1992*. Washington, DC; OPS; 1992.

**Table 1**
**Evolution of the maternal and child population in the Region of the Americas during the period 1950-1990**

| SUBREGION | MATERNAL AND CHILD POPULATION | | | | | |
|---|---|---|---|---|---|---|
| | 1950 | | 1970 | | 1990 | |
| | Population (in millions) | % | Population (in millions) | % | Population (in millions) | % |
| **Latin America and the Caribbean** | 123 | 73.9 | 213 | 74.6 | 319 | 71.2 |
| **North America*** | 100 | 60.1 | 138 | 61.2 | 152 | 55.0 |
| **Total** | **223** | **67.0** | **351** | **67.9** | **471** | **63.1** |

* Figures are for Canada and the United States. Mexico is considered part of Latin America.
Source: United Nations. World Population Prospects. New York: UN; 1990.

**Table 2**
**Differentials in infant mortality rate***
**in selected countries, by biosocial variables**

| VARIABLES | COUNTRIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BOL 89 | BRA 89 | COL 90 | DOR 91 | ECU 87 | GUA 87 | MEX 87 | PAR 90 | PER 91-92 |
| **a) Sex** | | | | | | | | | |
| • Male | 105 | 98 | 27 | 53 | 70 | 90 | 60 | 38 | 68 |
| • Female | 85 | 73 | 27 | 35 | 60 | 68 | 52 | 32 | 59 |
| **b) Maternal Education** | | | | | | | | | |
| • No education | 124 | 115 | 60 | 48 | 106 | 81 | 83 | 45 | 102 |
| • Primary | 108 | 91 | 27 | 54 | 68 | 61 | 55 | 37 | 83 |
| • Secondary or higher | 56 | 25 | 18 | 21 | 40 | 40 | 27 | 22 | 30 |
| **c) Maternal age** | 101 | 103 | 32 | 66 | 62 | 98 | 63 | 51 | 79 |
| • <20 | 92 | 82 | 25 | 37 | 63 | 72 | 53 | 29 | 58 |
| • 20/29 | 93 | 86 | 27 | 42 | 63 | 77 | 57 | 37 | 63 |
| • 30/39 | 140 | 143 | 34 | 60 | 141 | 166 | 74 | 51 | 101 |
| • 40+ | | | | | | | | | |
| **d) Birth spacing** | | | | | | | | | |
| • Less than 2 years | 153.9 | 137.8 | 38.8 | 60.8 | 95 | 120 | 81.4 | 40.3 | 108 |
| • 2-3 years | 87.3 | 69.8 | 24.2 | 29.1 | 53** | 52.3 | 45.4 | 32.6 | 54 |
| **e) Residence** | | | | | | | | | |
| • Urban | 79 | 76 | 29 | 37 | 52 | 65 | 43 | 32 | 48 |
| • Rural | 112 | 107 | 23 | 55 | 77 | 84 | 79 | 38 | 90 |

* Rate per 1,000 live births
** Figure is for the group aged 24-47 months
Source: Organización Panamericana de la Salud. *Las condiciones de salud en las Américas.* Edición 1994. Washington DC; OPS; 1994. (Publicación Científca 549).

## Table 3
## Percentage of institutional births and maternal mortality in selected countries of the Region[1]

| | MATERNAL MORTALITY RATE (per 100,000 live births) | | | |
|---|---|---|---|---|
| **PERCENTAGE OF INSTITUTIONAL BIRTHS[2]** | **LOW (under 20)** | **MEDIUM (20-49)** | **HIGH (50-149)** | **VERY HIGH (150 or more)** |
| **LOW (under 50%)** | | | Guatemala | Bolivia<br>Ecuador<br>Haiti<br>Honduras<br>Paraguay<br>Peru |
| **MEDIUM (50%-75%)** | | | Brazil<br>Colombia<br>El Salvador<br>Mexico<br>Nicaragua<br>Dominican Rep. | |
| **HIGH** (76%- 90%) | | | Guyana<br>Jamaica | |
| **VERY HIGH** (over 90%) | Canada<br>United States | Bahamas<br>Chile<br>Costa Rica<br>Cuba<br>Panama<br>Uruguay | Argentina<br>Venezuela | |

(1) Excludes countries of the Region that do not report maternal mortality or report figures of less than 10.

(2) The concept of "institutional birth" in some countries refers to births attended in health care institutions; in others it refers to any birth attended by a health care professional.

Source: **Information from the database of the Growth-Development and Human Reproduction Unit of the PAHO Special Program on Maternal and Child Health and Population.** In: Organización Panamericana de la Salud. *Plan regional de acción para la reducción de la mortalidad materna en las Américas.* Washington, DC: OPS; 1993. (Document CE111/11).

**Table 4**
**Trend of overall malnutrition in children under the age of 5 in selected countries of the Region**

| COUNTRY | YEAR | % MALNUTRITION | YEAR | % MALNUTRITION | DATA SOURCE |
|---|---|---|---|---|---|
| Bolivia | 81 | 14.4 | 91 | 11.7 | N.S. |
| Brasil | 74 | 18.4 | 89 | 7.0 | N.S. |
| Colombia | 77 | 20.6 | 89 | 10.8 | N.S. |
| Costa Rica | 78 | 12.3 | 89 | 2.7 | H.C. |
| Chile | 79 | 12.2 | 89 | 8.2 | H.C. |
| Ecuador | 65-69 | 10.8 | 86 | 9.7 | N.S. |
| El Salvador | 78 | 17.9 | 88 | 15.2 | N.S. |
| Guatemala | 65-66 | 24.6 | 87-89 | 38.5 | N.S. |
| Honduras | 65-67 | 28.5 | 87 | 20.6 | N.S. |
| Peru | 84 | 13.4 | 91 | 10.4 | N.S. |
| Dominican Republic | 69 | 75 | 87 | 28.8 | N.S. |

N.S. = National Survey
H.C. = Health Centers

Source: Organización Panamericana de la Salud, Programa de Alimentación y Nutrición. **La situación alimentaria nutricional de los niños menores de 5 años en la región de Latinoamérica y el Caribe.** Washington, DC: OPS; 1993. (Document HPN/93.3).