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**HEALTH AND WOMEN IN
LATIN AMERICA AND THE
CARIBBEAN: OLD ISSUES AND
NEW APPROACHES**

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ABSTRACT

There are major differences between women and men in terms of their health needs and problems, their access to health resources, and their rates of mortality and morbidity. These disparities are a product not only of the biological peculiarities of each sex, but also of the social norms that govern gender relations —that is to say, the way in which each society recognizes, expresses and sets the boundaries of masculine and feminine identity and behaviour.

The information available for Latin America and the Caribbean suggests that women are at a disadvantage as regards their control over the resources they need to protect their health. It also shows that society does not yet properly recognize or support women's central contribution to the development of family and community health. Moreover, despite the fact that they represent a growing majority in the health sector, women in the upper echelons of decision-making, autonomy, status and remuneration are still very much in the minority.

The purpose of this paper is to map out a profile of women's position in the region with respect to health in the early 1990s. Particular attention is paid to the gender inequities that are to be found in different areas of health and that affect women exclusively, or disproportionately compared with men.

The paper is divided into four sections: the first outlines the key elements of the conceptual framework that informed the selection of, and analytical approach to, the issues to be discussed; the second describes the chief characteristics of women's health conditions throughout their cycle of life; the third part briefly reviews women's role in the process of health-building; and the fourth and concluding section puts forward a number of public health policy proposals.

I. INTRODUCTION

It is evident —although often overlooked— that, besides the differences in health conditions to be found among social classes, ethnic groups and geographical regions, there are also significant differences between women and men within such groups, both in terms of their health needs and problems, and in terms of their access to resources to protect their health. These differences are a product not only of the biological peculiarities of each **sex**, but also of the social norms that govern **gender** relations —that is, the way in which each society recognizes, expresses and sets the boundaries of masculine and feminine identity and behaviour.

The information available for Latin America and the Caribbean suggests wide disparities between the sexes as regards mortality, morbidity and access to adequate health care services (Gómez Gómez, 1990). It shows that women are at an overall disadvantage in terms of their control over the resources they need to protect their health, although it must be acknowledged that a number of important gender constructs also constitute risk factors for men. The information also reveals that society does not yet properly recognize or support women's central contribution to the development of family and community health. Moreover, despite the fact that they represent a growing majority in the health sector, women in the upper echelons of decision-making, autonomy, status and remuneration are still very much in the minority (Pizurki and others, 1987).

Women's social disadvantage, as a group, has been amply documented by international organizations around the world. The United Nations Development Programme (UNDP), in its *Human Development Report, 1993*, draws attention to the fact that, according to human development indicators, **"no country treats its women as well as its men"**, and describes this as **"disappointing ... after so many years of debate on equality, so many struggles by women and so many changes in national laws"**; in industrial countries, gender discrimination (as measured by the human development index) is found mainly in the areas of labour and wages, while **"in developing countries, the great disparities, besides those in the job market, are in health care, nutritional support and education"**. Moreover, the report notes that the extent of such gaps between the sexes is not directly related to the level of human development in each country, since there are wide gender disparities in even the most highly developed countries (UNDP, 1993, pp.16-17). This suggests that female subordination is not simply a consequence of poverty and that development does not automatically bridge equity gaps of this kind.

Based on the fragmentary information available, this paper attempts to map out a profile of women's situation in Latin America and the Caribbean with respect to health in the early 1990s. Looking primarily at gender specificities, the analysis focuses on situations that affect women exclusively or differently and pays particular attention to situations that imply gender inequities.

It is important to note that the comprehensive and positive content of the notion of health as a **state of total physical and social well-being, and not merely an**

absence of sickness is not fully represented in this document, where the bulk of the basic data comes from the available repertory of health indicators —essentially negative— on disease and death. The operational definition of health as an intrinsic component of human development (an enlarger of options within a democratic and participatory context) poses a methodological challenge that is only just beginning to be addressed, and the fact that scant progress has been made in this area is evident from the knowledge gaps to be found in this study.

The paper is divided into four sections: the first outlines the key elements of the conceptual framework that informed the selection of, and analytical approach to, the issues discussed; the second section —the main body of the paper— describes the chief characteristics of the health conditions of the women of the region throughout their cycle of life; the third part briefly reviews women's role in the process of health-building in the Americas; and the fourth, and concluding section puts forward a number of basic elements for the design of health policy proposals.

II. THE CONCEPTUAL FRAMEWORK

Traditional approaches to the analysis of women as an important population subgroup within the health sector have focused mainly on women's childbearing-maternal role and much less on the wide range of needs, risks and contributions associated with the multiple roles women play at different stages of their lives. Moreover, the biased perception of women as primarily a source of problems requiring attention has obscured the fundamental role they have played and do play in solving those problems. For these reasons, minimal attention has been paid to those aspects of women's health that are unrelated to their childbearing function, or to the social and economic environment that affects women's ability to protect their own and their families' health (ICRW, 1989).

Historically, within the public health context, approaches to the subject of women's care have been characterized by an instrumentalist vision combining elements of both welfare and efficiency approaches: "welfare" in the sense that women are basically seen as passive beneficiaries, a "vulnerable group" in the same category as children, the elderly and the disabled; and "efficiency" in the sense that family and community health programmes depend fundamentally on women's traditional maternal and domestic roles and on their unpaid community service for the achievement of their objectives.

The instrumentalist approach sees health care for women as a means of ensuring the health of others, and has arisen mainly out of the medical perspective on the impact of maternal health on perinatal and infant health. Until relatively recently, preventive medicine programmes targeting women focused on prenatal care, with a view to producing healthy infants and children, while neglecting other important aspects of women's health. Not until the 1950s, which brought the threat of a "population explosion", did family planning services begin to play a prominent part in preventive health programmes in developing countries, which focused on women in order to reduce birth rates. Later, in the 1970s, when maternal milk was recognized as important to a child's healthy development, the health sector once more turned its attention to women as the natural target of breast-feeding campaigns. The broad-based child-survival initiatives of the 1980s similarly focused on mothers, making them responsible for implementing basic strategies to protect their children's health, yet without providing parallel mechanisms to support and facilitate their work. More recently, having ignored the female population for years, AIDS prevention campaigns began to focus on women. This reorientation, reflects not so much a concern for women's own health, however, as a preoccupation about their role as potential transmitters of the disease to their unborn children and to their sexual partners (Faúndez and others, 1989).

An exception to the instrumentalist approach to women's health was the "Safe Motherhood" initiative, which was launched in the late 1980s with the aim of reducing maternal mortality in developing countries. This initiative, which was a decisive factor in encouraging the design of health care programmes targeting women in their own right, also fostered an awareness among the general public that persistently high

maternal mortality rates reflect women's disadvantaged position in society. It must be emphasized, however, that this initiative, though a pioneering effort within the field of women's health care, targets only women who are mothers, thereby, failing to deconstruct the prevailing ideology that women's central role is the biological one of child-bearer. In fact, the focusing of scientific interest on maternal mortality tends to reinforce the belief that it is the biological processes associated with procreation that pose the most significant risk to women's health in developing countries and distracts attention from other important health risks (Richters, 1992) such as nutritional deficiencies; the double or triple load of domestic, productive and community work; gynaecological cancers and other chronic diseases; sexually transmitted diseases; domestic violence; and the inferior working and social security environments in which a majority of women find themselves.

"The integration of women into development" —the approach that dominated the international stage during the United Nations Decade for Women and that began to permeate the health sector in the 1980s— is based on the erroneous premise that women were shut out from the development process. Responses to this presumed exclusion took the form of policies and projects geared to optimizing women's contribution to society by making them more efficient in the performance of their traditional roles as builders of family health and voluntary community health workers. With the introduction of structural adjustment policies in the 1980s, traditional female roles were explicitly made the basis for meeting efficiency objectives in the development process. Thus, as resources for health services were cut back, health care programmes reduced their operating costs by relying more heavily on the unpaid labour provided by women performing their traditional roles: the maternal-domestic role of the protector of the family's health, and the community role of purveyor of the resources essential to community survival. This labour intensification strategy was based on the notion of the "elasticity" of women's time (Moser, 1993, p.70) and women became the focus of attention for their capacity to compensate, without remuneration, for the cuts imposed on health services.

The recent introduction of the gender perspective into health analysis has revealed the various ways in which the social constructs of femininity and masculinity shape differing profiles of women's and men's health and their participation in health work. The main objective of this new approach is to unveil those mechanisms that, beginning with a gender division of labour, create or reinforce gender inequities. These inequities are made manifest not only in the degree of exposure to risk but, more fundamentally, in the amount of power each sex has over the resources necessary to cope with such risk, protect health, and influence the direction of the health development process. Generally speaking, it has been men who have been favoured by these power relations, and women have occupied a position of disadvantage and subordination in relation to men.

A gender-based approach to health does not exclude physiology, but goes beyond it to focus on the dialectic between biology and society which manifests itself in gender inequities in epidemiological profiles and health work (Gómez Gómez 1993b). Clearly, not all sex differences in health imply inequity; inequity refers only to unnecessary, avoidable, unjust and systematic differences in the probability of enjoying good health, falling ill or dying (Whitehead, 1990, p. 7). Equally clearly, gender inequities in health work are not simply differences in the roles men and women play in family and community health care. The inequity lies in the fact that health activities are differentiated, not on a neutral basis, but by an asymmetric distribution of responsibility, power and recognition in the performance of such activities.

There are two fundamental mechanisms through which gender constructs influence people's health and their role in improving health: **socialization** and **institutional control** (Epstein, 1988). Having internalized the expectations that shape the paradigms of masculinity and femininity, society motivates men and women to select different behavioural alternatives, with differing implications for risk exposure and access to the resources necessary to protect their own and other people's health. Likewise, institutions, by exerting structural control over such choices, i) reward or sanction behaviours that adhere to or deviate from gender stereotypes; ii) discriminate by sex in granting access to certain activities or positions that command different levels of resources (this includes setting sex-based pay differentials for the same type of work); and iii) establish differing priorities in the allocation of resources to meet specifically female or male needs.

A gender-based approach transcends traditional analyses of women's health and their role in health care by shifting attention from the category of women *per se* and their integration into development, to the issues surrounding the inequitable relations between men and women, the impact of those relations on development, and the forces that perpetuate or change them (Canadian Council for International Cooperation/MATCH International Centre/Association québécoise des organismes de coopération internationale, 1991). It has helped to broaden the predominantly biomedical horizon of health care, not only by fostering a more comprehensive perspective on the health-disease process but also by challenging the equity of the foundations upon which society rests and the health system operates.

The backbone of the present analysis is the concept of equity, referring particularly to sex differentials in access to and control of health resources. This concept is itself founded on the notion of "need", referring to the distribution of health resources and services, not according to egalitarian criteria that allocate identical shares to individuals or groups, but according to differential criteria in order to meet the specific needs of these individuals and groups. Evidence of health inequities can frequently be found in cases of avoidable disease, disability and death (ECLAC, 1994, p. 7).

Each group has a profile of needs and problems derived from these [biological, ecological, cultural and economic] conditions that requires specific health and welfare measures. As a result, to achieve equity, society must recognize the gamut of problems and facilitate adequate social responses in terms of health and welfare measures - measures that foster the development of healthy living conditions and provide for the prevention and cure of specific health problems. (ECLAC, 1994, p.30)

The foregoing implies that, in order to achieve gender equity, the health sector must identify and respond to the specific needs and risks linked not only to exclusively female biological factors, but to the social disadvantage of women as a group in terms of access to and control over the resources they need to protect their own and other's health.

The equitable distribution of health-related resources applies both to private, family resources and to public-sector resources for health care, social security and research. In this context, it is even more important to take account of the female-male power differential **"to the extent that the allocation of resources is determined by the capacity of various social actors to exert pressure"** (ECLAC, 1994, p. 22).

A good illustration of differential resource allocation is provided by biomedical research, which has traditionally focused on problems affecting mainly men. Women have been systematically excluded from clinical tests on the grounds that the menstrual

cycle be a source of confusion in analysing the data. One result of this exclusion has been that findings on the effectiveness and safety of specific interventions cannot be applied conclusively to women. In industrialized countries such as Canada and the United States, women's organized pressure has alerted the public to this type of inequity, with the result that public funding for research on diseases affecting mainly women, such as breast cancer, osteoporosis, endometriosis and other conditions associated with menopause, has increased. In the United States, pressure from women has led to legislation requiring state-supported research, particularly clinical trials, to include appropriate female participation so that the results of such tests will be applicable to the other half of the population (Kirschstein, 1991, pp. 291-293).

While gender inequity may be exacerbated by other forms of social inequity, it cannot be subsumed under them. The essence of gender inequity, which consists in women's social, economic and political subordination, cuts right across geographical regions, cultures, political systems, social classes, races, ethnic groups, ages and stages of development. As pointed out in the *Human Development Report 1993* (UNDP, 1993), and as confirmed by numerous contemporary studies, gender inequity is not exclusive to poor countries or sectors and cannot be solved by economic development. Indeed, it is widely acknowledged that certain economic development initiatives, far from having reduced women's relative disadvantage with respect to men, have contributed to a widening of the economic and power gap between the sexes.

At the same time, it would be most unwise to underestimate the internal heterogeneity of the category of "gender", and any analysis must take into account the effect that such variables as race, ethnicity, age and social class have on women's unmet needs and on the character and extent of inter- and intra-gender inequities.

III. WOMEN'S HEALTH AT THE BEGINNING OF THE 1990s

Worldwide, women tend to outlive men. Thus, under normal circumstances, mortality rates tend to be lower for females than for males in all age groups, especially during the perinatal stage and early infancy. The influence of a biological factor in the female advantage has been widely documented in the literature and is further confirmed by the fact that this phenomenon is not exclusive to humans but is true of most animal life (López, 1984). It is therefore worth investigating the factors that determine any deviations from the normal pattern of excess male mortality. Studies reveal that, for example, where there are social factors that are detrimental to women, the female survival advantage narrows, and even reverses itself in certain age groups. This phenomenon has been observed mainly during the reproductive years when death occurs as a result of complications in pregnancy, childbirth or the puerperium. This tendency has also been documented for children aged 1 to 4 in intensive studies conducted in China and in a number of South-East Asian countries, the Middle East and North Africa, and in recent studies in selected countries of the Americas (Gómez Gómez, 1993c).

Within the context of sex differences in health, it should be noted that the female survival advantage is not equivalent to better health. Mortality is only one indicator of the extreme deterioration of health and cannot account for variations in the survivors' quality of life. Empirical evidence indicates that, far from enjoying better health, women are likely to experience higher morbidity than men, as demonstrated by a higher incidence of acute conditions throughout their lives, a greater prevalence of non-fatal chronic conditions, and higher levels of short- and long-term disability (United States, National Institutes of Health, 1992). This biological difference in morbidity — an instance where women do not enjoy an advantage — is aggravated by women's comparatively lower access to health protection resources (nutrition, health care services and social security), depending on social class, ethnic group, place of residence and age.

As mentioned at the beginning of this study, the analysis of women's health situation will focus on those conditions that affect women or given subgroups of women **exclusively, primarily or more seriously**; that involve **different risk factors** or require **different interventions** when they affect women or given subgroups of women; and in which women experience differences in terms of **access to and the quality of** the available resources.

The discussion is structured around four broad stages in women's life-cycle: i) childhood, ii) adolescence, iii) adulthood, and iv) middle and old age; it also includes a section on problems that occur at various stages in women's life and affect them disproportionately or differently.

The bulk of the available information is derived from the traditional areas of mortality and fertility, the main sources being the official mortality reports sent annually by the countries to the Pan American Health Organization (PAHO) between 1979 and 1990 (a period that coincides with the publication of the ninth edition of the

International Classification of Diseases); the database of the PAHO Mother and Child Health Program; and the demographic and health surveys undertaken between 1986 and 1990 in 11 countries of the region (Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Paraguay, Peru, and Trinidad and Tobago). Research into morbidity, especially morbidity that is unrelated to reproduction, and into certain aspects of health that have to do with the quality of life, is based primarily on local studies.

Use has also been made of the World Health Organization (WHO)/World Bank estimates of healthy years of life lost to premature death and disability (DALYS, or Disability-Adjusted Life Years) which provide a panoramic frame of reference for sex differences in the share of the various diseases and injuries in the region's morbidity and mortality burden (World Bank, 1993). Despite the controversial nature of the methodology employed in calculating these indicators —notably the "economicist" slant given to loss appraisal— DALYS are useful instruments for making standardized comparisons between the sexes, particularly during the productive-reproductive years.

As regards the quality of the information available in the region, it should be noted that the death records in most of the countries present serious problems of reliability, particularly in those countries with high mortality rates. Not only do many deaths go unreported, but in a large number of records the cause of death is poorly defined or not stated at all. Although these deficiencies hinder a comparison of mortality levels between countries, they are significant in mortality comparisons of the sexes within each country, since one aspect of **differential** mortality for which reasonably reliable health statistics are generally available is the differences between the sexes, the classification of individuals by sex naturally being mostly unequivocal (López, 1984).

The analysis of mortality by cause has been restricted for certain causes to the 10 countries with the lowest rates of under-reporting of deaths and the lowest incidence of causes attributed to "ill-defined signs, symptoms and conditions". These countries are, in descending order according to estimated diagnostic coverage: Canada, the United States, Cuba, Costa Rica, Argentina, Uruguay, Mexico, Chile, Guatemala and Venezuela. The list does not include Caribbean countries which, though meeting diagnostic coverage requirements, present statistical difficulties owing to the reduced volume of their population and, consequently, of their deaths.

It should be noted that an analysis of gender-specific aspects of health is hampered not only by the general problems of information availability and quality that are encountered in the course of any health study, but by additional difficulties in that it is rare for published statistics to be broken down by sex, and that the records on some exclusively female health conditions, such as maternal mortality, are of notoriously poor quality.

A. INFANCY AND CHILDHOOD

The World Health Organization (WHO) has highlighted the fact that, in countries where girls and boys receive equal care, the chances of surviving the first five years of life are 1.01 in favour of girls (WHO, 1980). Since this is a universal, genetically-related trend, excess female mortality in childhood can be taken as a clear warning that there is probably a major social problem: discrimination against girls (Waldron, 1987).

During the last decade, the expected pattern of excess male mortality in Latin America and the Caribbean remained relatively consistent for children under age one (infant mortality). The pattern for children aged 1-4 (childhood or post-infant mortality) was less consistent during the same period. Although caution must be exercised when drawing conclusions from incomplete information, official figures submitted to PAHO between 1979 and 1990 indicated that female mortality rates in the 1-4 age group were higher than male rates in 11 out of 19 countries of the Americas and in one or more years during this period.

The hypothesis that this phenomenon occurs in a substantial number of countries of the region is confirmed by the demographic and health surveys, which have consistently indicated excess female mortality in the 1-4 age group in 9 of the 11 countries studied, at one or more periods (see table 1). In the remaining two countries, female mortality rates were equal to male rates, a phenomenon which, given the norm of higher male mortality, could also be described as excess female mortality.

It is possible to draw two conclusions from the above data as a whole: first, that instances of higher female child mortality in the region are not rare or trivial occurrences, or statistic flukes, but in fact are common enough to surface in the national averages of a substantial number of countries in the region; and second, that trends over time would not appear to indicate that greater economic development heralds the end of such deviation from the natural mortality pattern, or even its terminal decline.

The official information on causes of death, which the countries submit to PAHO, provides some clues as to how excess female child mortality might originate. Based on previous observations of preventable deaths (Gómez Gómez, 1993a), five groups of causes that might reflect differential patterns of preventive and curative treatment, beginning at the family level, were selected. Then, in the 10 countries of the region with the most reliable mortality records, a study was made of specific mortality rates by sex for those groups of causes, as follows: i) nutritional deficiencies; ii) childhood diseases preventable by immunization (DPI) - measles, whooping cough, diphtheria, poliomyelitis and tetanus; iii) acute respiratory infections (ARI); iv) enteritis and other diarrhoeal diseases; and v) accidents and violence. Table 2 shows the ratios of male to female mortality from these causes for the years around 1980, 1985 and 1990.¹

Five important points emerge from these figures:

- i) Four out of the 10 countries in this group record excess female mortality for the total of all deaths at some point during the period;
- ii) The widest mortality gaps between women and men which are unfavourable to the latter and are associated with external causes (accidents and violence), indicating the early beginnings of men's greater exposure to the risk of death from unnatural causes;
- iii) Despite the genetic advantage females enjoy in terms of resistance to infection and death, in 7 out of the 10 countries listed in table 2 and for one or more years during the period, a higher proportion of girls than boys died of avoidable causes

¹ In this and the other mortality tables, the countries are listed in descending order of women's life expectancy at birth, an indicator that has a positive association with the level of economic development.

as a result of nutritional deficiencies, lack of immunization or a failure to procure timely health care;

iv) The number of instances of excess female mortality increases drastically when the category of external causes (accidents and violence) is excluded from total deaths from all causes;

v) Although excess female child mortality appears more frequently in economically less developed countries, it is not unknown in industrialized countries.

Studies conducted in Asia, Africa and the Americas suggest that girls' share (both quantitative and qualitative) in the distribution of food within the family is smaller than boys' share (Ravindran, 1986; Gómez Gómez, 1993c). There is relatively little research on nutrition among the general population, and most of the reports that have appeared on the subject are not broken down by sex, so sex differentials as regards nutrition tend to be even less well documented. As table 2 suggests, nutritional deficiencies are in all probability the cause most commonly associated with excess female childhood mortality, not only because of the proportion of deaths directly attributable to such deficiencies, but also because malnutrition is the indirect cause of more than 50% of all childhood deaths recorded in Latin America and the Caribbean (Puffer and Serrano, 1973). In terms of incidence, some sources (such as demographic and health surveys) show that, in three of the five countries for which anthropometric data was collected (Colombia in 1986; Guatemala and Trinidad and Tobago in 1987) (Gómez Gómez, 1990), despite the higher resistance of females to nutritional deficiencies, malnutrition is more common among girls than among boys. The higher incidence of nutritional deficit among girls in these three countries can also be observed in UNICEF figures for the same period (Carlson and Wardlaw, 1990, p. 56).

The most common type of nutritional deficiency among girls has been found to be acute malnutrition (weight for height deficit) rather than chronic (height for age deficit) or global (weight for age deficit) malnutrition.

Table 3, which is based on demographic and health survey information from eight countries of the region, illustrates another important aspect of sex-differentiated treatment of children: obtaining medical care to treat illness. In the particular cases of acute respiratory infections, fever, and diarrhoea, the figures show that girls with such symptoms tend to be taken to health care services much less frequently than boys, and that this pattern does not seem to be linked with relative levels of economic development.

While sex differentiation in terms of nutrition and health care during childhood, the most vulnerable stage of life, leads to excess female mortality only in extreme cases, it does nevertheless have deleterious consequences for health, reinforcing subsequent gender inequities in terms of survival and the quality of life. Malnutrition also augments susceptibility to infectious diseases, retards growth, leads to chronic fatigue and hinders normal physical and intellectual development. Furthermore, malnutrition in girls may impede the normal growth of the pelvic bones, producing an atrophy condition that may, in later life, result in obstructed deliveries, which are a common cause of maternal and perinatal mortality.

Thus, any possibility that discrimination is being practised in childhood nutrition and health care demands urgent investigation and intervention in view of its serious short- and long-term effects on health and development.

B. ADOLESCENCE

Once the common childhood problems are overcome, attaining health equity between the sexes ceases to be a question of improving women's access to the same resources that sustain male health and quality of life and becomes a matter of recognizing men's and women's specific needs, risks and roles, and on that basis designing specific interventions and making relevant investment decisions.

A number of causal factors have a sex-differentiated impact on adolescent survival and quality of life: i) the beginning of sexual activity, which is associated with premature pregnancy, pregnancy and childbirth complications, abortion and sexually transmitted diseases; ii) nutritional problems associated mainly with young women's higher iron requirement as a result of menstruation; iii) risk-taking behaviour that may involve accidents, violence, and substance abuse and is closely associated with mental health, the development of young people's self-esteem, and their identification with gender stereotypes.

The greatest qualitative difference between the sexes in terms of health risks is that associated with sexual activity, since the risks inherent in pregnancy and childbirth obviously do not affect males. This issue will be discussed in the section on reproductive health, with specific reference to adolescence.

In quantitative terms, the widest mortality gap between the sexes is related to what are known as "external" causes of death and disability, including accidents, murders, suicides, judicial action and war. For this group of causes (and for each individual cause), male adolescent mortality rates are five times higher than those of female adolescents, as can be seen from the official information on mortality submitted by the countries to PAHO (not given here). The difference between the sexes as regards accidental or violent death becomes even more pronounced in adult age groups, as can be seen from WHO/World Bank estimates of healthy years of life lost due to premature death and disability over the total population of the region (see table 11). As mentioned earlier, this phenomenon is glimpsed in infancy and intensifies with age, reaching its peak in young adulthood, when it is associated with aggressive, daring, and violent behaviour patterns far more frequently observed among males than among females. In the case of suicide, even though the tendency there too, is toward excess male mortality, female mortality is sometimes higher—for example in adolescent groups in Colombia and Brazil; the frequency of suicide attempts is also generally higher among females than among males. While the male tendency toward more reckless, aggressive and violent behaviour may be biologically based (a controversial issue), it is an undeniable fact that such behavioural differences between the sexes are strengthened and perpetuated by cultural definitions of masculinity and femininity as opposites that work as destructive factors for males and protective factors for females. Equally indisputable is the fact that the enormous variation among countries in the incidence of reckless and violent behaviours is evidence that culture has a decisive impact on what may be a biological phenomenon.

Another type of risk-taking of particular importance during adolescence is experimental behaviour that may jeopardize health. Adolescent initiation into the use of alcohol, tobacco and drugs is becoming more frequent and starting earlier and, although substance abuse is still more common among males, it is spreading more rapidly among young females. This is especially true of the use of tobacco, and the sex gap among young people who smoke cigarettes is narrowing and has even closed in some countries.

Lastly, nutrition, too, is an important differentiating factor in men's and women's health. With the onset of menstruation, women's iron requirement begins to exceed men's, and increases still further during pregnancy and breast-feeding. It is very common for cultural patterns to create an iron deficit or to aggravate an existing one in some groups of women. Thus, in poor sectors, a nutritional deficit caused by a scarcity of resources is exacerbated by customary male privilege in the family's distribution of food, particularly food containing animal protein, which is a primary source of the iron supplement women's bodies require. Another form of nutritional deprivation, primarily affecting the female adolescent population in industrialized countries and in the upper strata of developing countries, results from self-imposed, and frequently fatal, eating disorders (anorexia nervosa and bulimia). These originate with female adolescents' desire to conform to cultural patterns that emphasize women's physical beauty as a central value and, stress slimness as an aspect of physical beauty.

C. ADULTHOOD

Women's enjoyment of good health during the time between youth and middle age is specifically and closely related to the exercise of their reproductive rights, that is to say, their right to take decisions regarding their sexuality and maternity, and to remain healthy and survive in the process of procreation. Because of their close association with reproductive health, gynaecological cancers are also dealt with in this section. Other factors and determinants of women's health that have to do with their multiple roles during this life stage will be discussed in the section referring to problems that span the different stages of the life cycle.

a) *Health and reproductive rights*

The comprehensive concept of women's reproductive health refers to their ability to enjoy gratifying and enriching sexual relations without coercion and without fear of infection or of unwanted pregnancy; to regulate their fertility without risk of unpleasant or dangerous side effects; to proceed safely through pregnancy and childbirth; and to bear and raise healthy children (Germain and Antrobus, 1989).

Women's health status in the region will be examined from a three-fold perspective: the right to voluntary maternity; the right to a safe pregnancy, delivery and puerperium; and the risk of contracting reproductive tract infections, including sexually transmitted diseases.

b) *Health and the regulation of fertility*

The right to decide on the number and spacing of children is now recognized as a basic right for a couple, particularly the woman, who assumes not only the biological consequences of pregnancy, childbirth and breast-feeding but also the culturally assigned responsibility of child-care. As stated in the 1985 Nairobi Forward-looking Strategies for the Advancement of Women, women's ability to control their own fertility is fundamental to the exercise of other rights.

As regards the impact of fertility regulation on women's health, it has been demonstrated that pregnancies that are too numerous or too close together, or that occur at extremes of the childbearing cycle, represent health and survival risks for both mother and child. Moreover, in poor sectors, such risks are compounded by deficiencies in nutrition and in health services.

In this context of voluntary maternity, it is important to remember that prevention, diagnosis and treatment of infertility are also components of fertility regulation and that, although they are not examined in this study, both infertility and the new techniques of assisted reproduction (Serrano Lavertu and Linares Parada, 1993) have a greater physiological and social impact on women than on men.

c) *Risk factors associated with failure to exercise the right to regulate fertility*

i) *Numerous pregnancies.* The risk of maternal morbidity and mortality is greater among women who complete five or more pregnancies. The prevalence of this risk factor among the general population has diminished greatly as a result of the notable decline in fertility in the region since the 1960s. The figures show that, with some variations in intensity, this was a steady trend during the last decade in all the countries of Latin America and the Caribbean except Cuba, making this the region with the biggest decline in the total fertility rate (TFR)² in the world: the number of children per woman dropped from 4.1 to 3.1 during this period. In nine countries of the region (Belize, Bolivia, El Salvador, Grenada, Guatemala, Haiti, Honduras, Nicaragua and Paraguay) TFR still exceeds 4.0 children per woman, and, since these are average rates, they conceal wide variations within each country. Furthermore, TFR covers only live births, not pregnancies, for which no information is available at the regional level.

The internal heterogeneity of fertility levels is evident from the demographic and health surveys conducted in 11 countries of the region during the last decade.³ These surveys indicate, for example, that in countries with TFR of less than 4.0 children, between 20% and 29% of all women of childbearing age have already had four or more children. In addition, fertility rates vary significantly depending on socio-economic variables such as urban or rural residence and, especially, women's level of education (see table 4): in the countries studied, women in rural areas had, on average, between 0.1 and 3.4 more children than women in urban areas; illiterate women had between 1.3 and 5.2 more children than women with high school or college education. The narrowest fertility gap for either residence or education was found in Trinidad and Tobago and the widest in Peru. In two out of the three countries where consecutive surveys were conducted —Colombia and the Dominican Republic— the gaps narrowed between 1986 and 1992; in Peru, however, they widened during the same period.

ii) *Premature or late pregnancies.* Numerous studies have signalled a connection between obstetric complications and pregnancies below the age of 18 or above the age of 34, the greatest risk being to adolescents under the age of 15, who are five to seven times more likely to die during pregnancy or childbirth than women aged from 20 to 24, who are at the lowest risk.

² The total fertility rate (TFR) is a theoretical average number of children per woman that is not affected by the population's age distribution. It is estimated from the sum of age-specific fertility rates of women between 15 and 49 years old.

³ These countries are: Bolivia, Brazil, Colombia, Ecuador, El Salvador, Guatemala, Mexico, Paraguay, Peru, Dominican Republic and Trinidad and Tobago.

Although, the age/risk connection does respond to immediate causes, it is also influenced by adverse socio-economic conditions that, on the one hand, make it possible for pregnancy to occur at these extremes of age and, on the other, hinder access to appropriate obstetric care: Cuba, for example, which provides access to such services, recorded the lowest maternal mortality rates for the 15-19 age group. It should be stressed that premature or late pregnancies are a social product insofar as they reflect restrictions on access to information, resources and alternatives to maternity, which limit women's control over their fertility.

Although the decline in the region's fertility in the last 30 years, which accelerated during the 1980s, was observable in all age groups, it was not uniform, but varied positively with age: that is to say, the decline was slower in younger age groups, moderate in intermediate ones and faster in older age groups.

In the 1980s, at the regional level, the rate at which fertility declined in age groups over 35 varied between 43% and 68%, which not only was well above average, but also greatly exceeded the rates for the previous two decades, which had ranged between 17% and 43%. The rate of decline was slowest among those at the other extreme —the 15-19 age group— and indeed some countries of the region recorded slight rises in the fertility rates for this group. Such increases were, however, the exception rather than the rule, and adolescent fertility declined overall.⁴ The fact that it declined less than fertility among the remaining age groups meant an increase in this group's share of total births (from 9% in 1950-55 to 11% in 1985-90) and a corresponding increase in its share in the high-risk category.

Some aspects of the issue of adolescent pregnancy go beyond the fields of medicine and demography and concern the quality of life of mother and child, the obstacles to adolescent mothers' educational and social development and, above all, the range of options available to the adolescent who "chooses" to become a mother.

A key indicator, within this context of women's development opportunities is, therefore, *age at the birth of the first child*. The demographic and health surveys provide information on this for 10 countries. As can be seen from table 5, the median age of women at the birth of their first child fluctuates at the national level between 19.9 in Guatemala, where fertility rates are highest, and 22.1 in Colombia, where they are lowest. These figures also show that education is a decisive influence on age at the birth of the first child: in seven of the countries studied, the difference in age at first childbirth between women with the lowest level of formal education and those with the highest level is more than four years, and is almost six years in Trinidad and Tobago and Ecuador. A significant break occurs at the end of primary school and the beginning of secondary education.

iii) *Too closely spaced pregnancies*. Numerous pregnancies, too close together, have been identified as the cause of **maternal depletion syndrome**, which occurs when the female body is not allowed the two to three years it needs to recover fully from a pregnancy, to prepare for another pregnancy and to breast-feed the newborn, without the strain of another pregnancy (Omran and Solís, 1992).

Declining fertility rates do not automatically mean wider intervals between pregnancies. As regional trends in age-specific fertility rates indicate, a crucial factor in this decline has been early termination of the reproductive cycle. In addition, fertility

⁴ More detailed information, giving figures from individual countries, can be found in the sections on adolescents in the chapters on population and health.

indicators refer only to live births, not pregnancies, and mask the incidence of stillbirths, miscarriages and abortions (which are extremely common in the region). On the other hand, the widespread use of contraception (see next section) makes it likely that a significant proportion of women are spacing their pregnancies, even allowing for the fact that female sterilization may be the most common method of contraception used in the Americas.

The inverse relation between the length of the intervals between births and infant mortality has been documented extensively in the region. By contrast, research into the impact of these intervals on women's health has been minimal. One indicator of spacing between pregnancies appears in recent demographic and health surveys: the median interval between the previous birth to the last birth before the survey. The countries for which such information is available are Colombia (1990), Paraguay (1990), Dominican Republic (1991), Brazil (north-east) (1991) and Peru (1992), which all have varying levels of fertility.

The figures for the median latest birth interval in these five countries indicate that, for around 50% of women, birth intervals (planned or spontaneous) were longer than two years, with a range of between 27.6 months in north-eastern Brazil and 33 months in Colombia. This pattern can be seen even among women with lower levels of education, for whom the corresponding figures fluctuate between 25 months (Paraguay) and 29 months (Peru). However, the education factor again seems to be associated with significant differences: birth intervals ranged from 5 months (north-eastern Brazil) to 20 months (Colombia) between women with no formal education and women with a university education.

Although these figures are encouraging insofar as they show a high incidence of birth spacing, which contributes to women's health, it must be remembered that they are statistical **medians**, which implies that the other 50% of women, approximately, fall below the interval limit generally considered as the minimum required for the mother's physical recuperation and, in even greater measure, for the health of the infant.

1. Access to contraceptive technologies

Access to contraceptive technologies is a cornerstone of voluntary maternity. Recent statistics indicate that over 50% of women in legal or consensual unions in the Americas use some method of contraception (see table 6), and that most of the methods used are recognized as "modern",⁵ i.e., they require clinical supplies or interventions such as contraceptive pills, intrauterine devices, condoms, sterilization or diaphragms. The subregions of the Americas with the highest rates of contraceptive use are, in descending order, North America (74%), South America (63%),⁶ the Caribbean (53%) and Central America (49%). In each of the last three subregions, there are wide variations among the countries. In South America, for example, the rate

⁵ The description "traditional" covers contraceptive techniques such as periodic abstinence, coitus interruptus, douches and folk methods.

⁶ Within Latin America there is no recent information on contraceptive use in the Southern Cone (Argentina, Chile and Uruguay). Given the low fertility rate of those countries, rates of use are presumed to be more than 60%; however, these countries also have a high incidence of abortion.

is twice as high in Colombia and Brazil as in Bolivia; in Central America, the rate in Costa Rica is nearly three times the rate in Guatemala; and in the Caribbean, Cuba's rate is seven times that of Haiti.

Over the last 15 years, contraceptive use has increased notably in most Latin American and Caribbean countries for which data is available, with the exception of those where rates were already high in the mid-1970s. In Colombia, El Salvador, Guatemala, Haiti, Mexico and Paraguay, the incidence of contraceptive use rose by more than 100%, with the rate in Guatemala, for instance, increasing from 4.0% in 1974 to 23.2% in 1987. At the other extreme, Peru recorded a far smaller increase of 17% (Jamison, 1991, pp. A45-A48).

Within the countries, access to and use of contraceptive technology —and certain methods in particular— also vary in response to factors related to women's social environment. Table 7 shows the degree of variation between women living in rural areas and those in urban areas, and among women with different levels of education. As the figures indicate, both place of residence and educational level generate enormous differences in the use of contraceptive technology. The greatest disparities are to be found between the lowest and highest extremes of the education scale, and in this respect an extreme case is Guatemala, where the percentage of women using contraceptives is six times greater in the highest educational category than in the lowest. Age is another variable that produces wide deviations from the average, particularly in the case of young women: it is among 15- to 19- year-olds as a group that the lowest rates of contraceptive use are to be found, even compared with the rates for the "no formal education" category. This lower rate of use among female adolescents is even more pronounced among those who are single since, because they are not "in a union", they are not classed as "exposed to the risk of pregnancy", a category that receives priority targeting in family planning programmes. (In practice, this category tends to exclude not only single women, particularly the youngest of them, but also all men.)

One indicator not only of preferences (demand) but also, indirectly, of availability (supply), is the type of method used. The available information indicates that the most commonly used methods of contraception are female sterilization in Latin America and contraceptive pills in the Caribbean. It also shows that, over the last fifteen years, in countries such as Brazil, Colombia and El Salvador, the use of contraceptive techniques *per se* has grown more slowly than female sterilization (Jamison, 1991).

Table 8 presents recent data on the prevalence of different contraceptive methods in 14 countries of the region. The most widely used methods are, in descending order, female sterilization, oral contraceptives, periodic abstinence, intrauterine devices, withdrawal, injectable contraceptives and vaginal methods (including spermicides and female barrier methods), condoms and male sterilization.

The prevalence of the various methods shows that the most profound and widespread disparity in the use of contraceptives is to be found in their use by women and their use by men. Women assume most of the responsibility and risk associated with the use of what is still a very imperfect technology. The strictly male contraceptive methods are the least widely used: male sterilization accounts for fewer than 1% of cases and the use of condoms fewer than 2% (except in the English-speaking Caribbean and Costa Rica, where condom use reaches rates as high as 12%, similar to the levels seen in North America). Since male sterilization is a simpler and considerably less risky procedure than female sterilization, and condoms offer additional protection against sexually transmitted diseases, including AIDS, the conditioning

factors for these differentials cannot be considerations of economic benefit or health, but must be behaviour patterns and values arising from cultural definitions of gender that defer to male preferences and to the physical integrity of the male reproductive system.

Table 8 also shows that Brazil, the Dominican Republic and El Salvador have the highest proportion —over 30%— of women in union who have been sterilized; the percentages in Colombia, Ecuador and Mexico range between 15% and 21%; and in Bolivia, Guatemala, Paraguay, Peru and Trinidad and Tobago, the rate is 10% or less. Considering the importance of female sterilization among contraceptive options, in terms not only of its incidence but also of its effects on women's physical and mental health, there are a number of noteworthy aspects to the way it is used.

According to information from demographic and health surveys (table 9), the median age for female sterilization fluctuates between 28 and 33, indicating that approximately 50% of these operations were performed at lower ages. In fact, in Brazil, the Dominican Republic and El Salvador, the countries with the highest incidence of female sterilization, between 52% and 60% of all sterilizations were performed on women under 29; in Colombia and Ecuador, the figure was approximately 42%; and, in the aforementioned group of countries with low rates of sterilization (not including Bolivia, for lack of data), 25%-35%. Furthermore, in the Dominican Republic and El Salvador, one in four sterilizations was performed on women under 25.

Table 9 also illustrates the relative importance of female sterilization within the total of contraceptive options. The figures indicate that sterilized women represent more than 30% of all contraceptive users in 7 out of the 11 countries surveyed, and more than 60% in 3 of them. If the education factor is taken into account, women with less education have by far the biggest share of female sterilization (within the range of contraceptive methods available) in all countries except Bolivia and Peru. The inverse pattern observable in Bolivia is probably attributable to such factors as difficulties of geographical access and lack of subsidies for surgical intervention, together with the considerably lower population coverage of sterilization programmes there (Ross and others, 1992).

In view of the high incidence of female sterilization, the irreversible nature of the procedure, the risks it entails⁷ and the fact that an appreciable percentage of sterilized women express regret at having had the operation and feel that they lacked autonomy in the decision-making process (referring to other family members),⁸ serious thought must be given not only to the range of alternatives available locally to women, especially younger women, but also to what the concept of **free and informed decisions** means in practice and to the context in which decisions are made.

⁷ Surgical complications, subsequent ectopic pregnancies, changes in menstruation, *inter alia*.

⁸ These expressions are used by sterilized women in surveys such as Mexico's demographic and health surveys.

2. Fertility regulation programmes and family planning

Population policies specifically addressing the issue of fertility have always been suffused with political, ideological and religious values because they represent an overlap between two dimensions: the rights of individuals, especially women, and the obligations of the State. "Of all social issues, human reproduction probably involves the most complex interaction of the utmost human intimacy and privacy with the global perspectives of society" (ECLAC, 1993).

The United Nations World Population Conference (Bucharest, 1974), the International Conference on Population (Mexico, 1984), the International Forum on Population in the Twenty-first Century (Amsterdam, 1989), the United Nations Conference on Environment and Development (Rio de Janeiro, 1992), the Meeting of Government Experts on Population and Development in Latin America and the Caribbean (Saint Lucia, 1992) and the Latin American and Caribbean Regional Conference on Population and Development (Mexico, 1993), as well as a number of other forums convened in the region, all rejected fertility regulation as a means of attaining demographic goals but supported it on humanistic grounds as relating to human rights, health benefits, and the enlargement of women's options within the family and society.

During the last decade, the women's movement has had a decisive influence on population policies and fertility regulation programmes and is destined to be a most powerful factor in forthcoming international conferences on population.

All the countries of the region are developing some kind of family planning activities, mainly as part of mother and child health programmes. Some countries place formal restrictions on the use of certain contraceptive methods but make them accessible in practice to those who can afford them. This applies also to abortion, which, despite being illegal in nearly all the countries, is widespread in all of them, with all the risks to women's health and survival that are incurred when it is performed by unqualified individuals. This issue will be discussed further in the context of maternal mortality.

In a survey of 20 countries of the region (Population Crisis Committee, 1992), a number of aspects of the accessibility of family planning programmes were evaluated, including the choices available, the technical competence of service providers and the availability of information and services. The survey, which was published in 1992, judged the programmes of only six countries (Colombia, Cuba, El Salvador, Mexico, Trinidad and Tobago and the United States) to have acceptable levels of accessibility; in Canada, Costa Rica, the Dominican Republic, Ecuador, Honduras, Jamaica, Panama, Peru and Venezuela, accessibility was deemed fair; and in Bolivia, Brazil, Guatemala, Haiti and Paraguay, it was considered poor.

The population coverage of contraceptive services has grown substantially in recent years as a result of the expansion and strengthening of complementary activities supported by public and private agencies. Outstanding contributions have been made by non-governmental organizations and groups working in alternative women's health programmes. It is estimated that 50% of contraceptive users are covered by the private sector.

Only a few countries have set definite goals for population coverage at the national level or have made plans to achieve such goals with the help of local institutions. A large number of countries continue to depend on external resources to obtain contraceptives, and since these items are not included in the countries' lists of essential drugs, the sustainability of such programmes is uncertain.

An analysis of the figures on the use of contraceptives in the region reveals the growing accessibility of different contraceptive technologies. "Statistical preferences" for certain methods do not, however, necessarily reflect free and informed decision-making on the basis of actual preferences and individual health conditions. Generally speaking, the choice depends on what methods are available from the services concerned and on service-providers' skills and attitudes, and the information they supply. In terms of health, the choice of contraceptive method is of primary importance, since as yet there is no technique that is both totally effective in preventing pregnancy and completely harmless to health (Hatcher and others, 1989). The choice, therefore, must be based on a medical and personal assessment of the risk/benefit ratio of the different options, in the light of the user's age, medical history and preferences. A PAHO evaluation of the efficiency of mother and child health services in 3,000 health units in 22 countries revealed, for example, that family planning services were in many cases restricted to the distribution of contraceptives and failed to include any educational component.

3. Health during pregnancy, childbirth and the puerperium

The fact that the leading causes of mortality in women of childbearing age in the region continue to include factors relating to pregnancy and childbirth is irrefutable evidence of inequity, since such deaths are essentially preventable and both the scientific knowledge and the simple technology required to prevent them have been available for many years.

Only since the United Nations Decade for Women (1976-1985) have governments and international organizations turned their attention to maternal mortality. The difficulty in obtaining figures on the actual number of women who die in the process of becoming mothers is a reflection of the relatively low priority the issue still receives: this is illustrated by the fact that the majority of the States Members of the United Nations monitor infant mortality but comparatively few monitor maternal mortality (Jacobsen, 1992).

Of all the human development indicators in current use, it is maternal mortality, even more than infant mortality, and despite being under-reported in developing countries, that displays the most striking differentials between industrialized and developing countries. In Latin America, for example, 1 woman in 79 runs the risk of dying of complications related to pregnancy, childbirth or the puerperium during her reproductive life, whereas in northern Europe the figure is 1 per 10,000 women (Mora and Yunes, 1993). In the Americas, the contrasts are equally stark: for instance, in 1990, the proportion of women aged between 15 and 44 who died of pregnancy and childbirth complications was 67 times higher in Ecuador than in Canada (PAHO, 1993a).

a) *Rates of maternal morbidity and mortality*

For the purposes of classification, maternal mortality is defined as the death of a woman while pregnant, or within 42 days of the end of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. It is extremely difficult to determine the true frequency of such deaths because not only is there an overall paucity of mortality records, but also

pregnancy is often omitted as a cause of death in the death certificates. Such omissions are so widespread that they occur even in hospital environments and industrialized countries. In Latin America and the Caribbean, under-reporting of deaths varies between 39% and 72%. The extent of such under-reporting—which is most serious in the countries with the highest mortality—should be borne in mind when considering the statistics that follow.

In terms of share of total deaths, complications associated with pregnancy, delivery and puerperium are one of the five leading causes of death among women aged 15 to 49 in 12 countries of Latin America and the Caribbean, and one of the 10 leading causes in the remaining countries. According to WHO/World Bank estimates (see table 11), women in the Americas lost 1.8 million years of healthy life in 1990 as a result of maternity-related premature death and disability. This is more than the number of years lost due to common illnesses, and relates to a natural, non-pathological process.

The indicator of maternal mortality most commonly used is that which relates maternal deaths to live births. The official figures for the Americas (see table 10) reveal vast differences among the countries, which relate not only to their level of economic development, but also to the priority they give to allocating resources to the prevention and treatment of female morbidity and mortality and to the degree of access women have to appropriate treatment. Thus, mortality rates in Bolivia, Haiti and Peru are 75 times higher than those of Canada and 12 times those of Costa Rica. Costa Rica in fact has the lowest maternal mortality rate, despite the fact that its per capita gross national product is not one of the highest in the region.

Although caution must be exercised in interpreting trends on the basis of such scanty information, between 1970 and 1988 maternal mortality in the majority of the countries and territories of the Americas declined, while moving upward in five countries: El Salvador, Guyana, Jamaica, Nicaragua and Peru. From 1988 onwards, the rate of decline stabilized in some countries and was reversed in others. Generally speaking, despite the decline in fertility recorded in the majority of the countries, maternal deaths increased in absolute terms in several countries, as a result of the worsening economic and social crisis of the mid-1980s, which aggravated the existing disparities between countries and population groups, including disparities of access to health services (PAHO, 1993b).

Estimates at the global level indicate that, for every woman who dies from obstetric complications, between 10 and 15 survive with severe long-term health problems (Measham and Rochat, 1987). These include incontinence, uterine prolapse, sterility, fistulas and other maladies that frequently have devastating effects on the survivor's quality of life. Population-based information on morbidity is extremely limited in Latin America and the Caribbean and what data is available is based on hospital consultation and discharge records, which are of notoriously limited comparability.

b) *Causes of maternal morbidity and mortality*

The roots of the problem lie not only in the poverty conditions associated with low levels of economic development but also in women's subordinate position in different societies, a position that produces or exacerbates biological risk factors associated with maternity and influences the priority given at the national, local and family levels to investing resources in measures to deal with such risks.

It must be reemphasized that the maternal deaths that occur in the region are basically avoidable and that the majority can be classed as having "direct obstetric" causes, i.e. they are a result of complications of pregnancy, childbirth or the puerperium, or of interventions related to those processes, such as abortion or Caesarean section. The category of "indirect obstetric causes", which is far less common, refers to medical factors that, while not a result of pregnancy, are aggravated by the physiological effects of pregnancy.

Of all the causes of maternal death given in official records in the region, abortion is the most common. The other direct causes are, in descending order, toxæmia, haemorrhage and puerperal complications.

Abortion, as a cause of death, is more prone to under-reporting than any other cause of maternal mortality since it is still illegal in all the countries of the region except Canada, Cuba and the United States. In addition, many deaths from such abortion-related complications as septicaemia and haemorrhage tend not to occur in obstetric and gynaecological units, either because the patient is referred to other services or because she is admitted directly into intensive care, surgery, a medical clinic, or some other health service unit where diagnoses are not linked to the reproductive process (PAHO/Mother and Child Health Program, 1987). Under-reporting notwithstanding, official figures list abortion as the leading cause of maternal mortality in 9 out of the 25 countries surveyed, and as the second most common cause in a further nine countries. Its share of all maternal deaths is more than 30% in five countries (Argentina, Costa Rica, Chile, Puerto Rico and Suriname), and 20%-30% in eight countries (Colombia, Cuba, Guyana, Jamaica, Nicaragua, Paraguay, Trinidad and Tobago and Venezuela). With a share of less than 20%, it is also the main cause of maternal death given in three countries (Guatemala, Honduras and Uruguay; in Uruguay abortion and puerperal complications share first place) (PAHO, 1993b). Illegal abortion is also estimated to account for 1 in 4 maternal deaths in Latin America (Sundström, 1993).

As regards the incidence of abortion, the estimated rate for Latin America is 65 abortions per 1,000 women of childbearing age, and even more in urban areas. This incidence implies a ratio of, at the minimum, one abortion for every two to three births in Latin America (Sundström, 1993), and no downward trend is indicated.

In addition to being a leading cause of maternal mortality, abortion is also associated with severe chronic conditions, sterility and increased risk of dying during subsequent pregnancies.

The extent of recourse to abortion and the severity of its consequences vary with women's social class. Less educated women are less likely to be familiar with contraceptive techniques or know how to use them properly, to be covered by health and family planning services, or to have geographic and economic access to contraceptives. Consequently, they are more likely to have unwanted pregnancies and to die as a result of abortions performed under unsanitary conditions by untrained personnel. In contrast, women from the upper socio-economic strata, when confronted by unwanted pregnancies due to failures of contraceptive technology or some other reason, can afford professional services, which, though illegal, allow them care under technically better and more hygienic conditions, with less risk of complications.

On simple preventive grounds, and aside from any ethical considerations for or against legalization, the undeniable significance of abortion as a public health problem demands a dispassionate, objective study of the factors that are leading an ever-increasing number of women to resort to such a measure, even at the risk of their health and their lives. Abortion represents not so much an option as a lack of options.

In the short term, the urgency of the problem requires the design and implementation of care mechanisms aimed at offsetting the lethal or incapacitating effects of this practice.

Toxaemia accounts for more than 25% of maternal deaths in Brazil, Canada, Colombia, the Dominican Republic, Jamaica, Mexico and Trinidad and Tobago (55%). **Haemorrhages** are the leading cause of maternal mortality, with a share of some 25% or more of maternal deaths, in Ecuador, Guyana, Panama, Paraguay, Peru, Puerto Rico and Suriname. **Puerperal complications** are the main cause of maternal mortality in the United States, and rates in Canada, Chile, Jamaica and Suriname exceed 20%. Deaths caused by toxaemia, haemorrhage, and puerperal complications are avoidable, since, with some variation, they are closely associated with the coverage and quality of prenatal, childbirth and immediate postpartum care: in the majority of cases, toxaemia can be prevented by simple blood pressure tests, while deaths from haemorrhaging reflect problems of the accessibility, availability and timeliness of blood transfusions in first-referral facilities. One factor in puerperal complications is excessive medical intervention during childbirth, particularly the indiscriminate practice of Caesarean sections (Mora and Yunes, 1993).

Abuse of the **Caesarean** section represents an additional risk for maternal health. A joint study conducted by the Latin American Centre for Perinatology and Human Development (CLAP) in 178 hospitals in 18 countries of Latin America found that Caesarean delivery is associated with a 12-fold increase in maternal mortality, a 7-to 20-fold increase in maternal morbidity, and a twofold increase in the length of hospital stay (CLAP/PAHO, 1989). According to the available data, the rate of use of the Caesarean section in 1991 in 20 countries of the region ranged from 5% in Jamaica to 34% in Brazil (see table 10) and there was an upward trend between 1989 and 1991 in 11 out of the 18 countries that provided data for those years.

c) *Coverage of maternity care*

Historically, maternal mortality has been more closely associated than infant mortality with the coverage and quality of health care services. This goes a long way towards explaining the notable contrast observed during the last three decades between the drastic decline in infant mortality, even during severe economic crises, and the comparatively modest decline, or even levelling-off, of maternal mortality during the same period.

Despite information deficiencies that hinder inter-country comparisons, the figures in table 10 clearly show that maternal mortality rates are inversely related to access to prenatal and, particularly, childbirth services. In eight countries with high rates of maternal mortality for which recent data are available (Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay and Peru), childbirth care coverage is less than 50%. With the exception of El Salvador, prenatal care in these countries tends to be more widespread than childbirth care. On the other hand, in countries with low maternal mortality, the figures show that childbirth care coverage is higher than 95% and generally exceeds prenatal care coverage. As to recent trends, the available information for the 1989-1991 period indicates that the rates of maternity care coverage remained stable or even showed a modest increase in most countries, while declines in prenatal care were recorded in Guatemala, Nicaragua and Uruguay, and in childbirth care in Peru.

Figures on the frequency of use of antitetanus vaccine, as an indicator of the quality of prenatal care, further darken the picture of low population coverage in certain countries, since they suggest that a considerable proportion (sometimes as much as two thirds) of the women who receive some kind of prenatal care are not vaccinated. Caution must be exercised in interpreting this data, however, since in a number of countries this vaccine is given only to those in high risk sectors, making coverage appear lower than it actually is.

The coverage figures in table 10 are of course national averages and thus conceal wide differences among regions and social strata. For example, demographic and health surveys show that rural coverage is generally lower than urban coverage, and may even be as much as 50% lower in some countries, such as Bolivia and Guatemala.

This situation is an unmistakable indicator of the urgent need for additional resources to universalize and revitalize maternity care services by improving the coverage and quality of the existing ones and looking at the alternative care models that are being applied in a number of countries of the region,⁹ such as the "maternity homes" and "birthing homes" whose impact is currently being evaluated.

i) *Reproductive tract infections and HIV/AIDS.* Reproductive tract infections (RTIs) are extremely common throughout the world and have serious social and health consequences for women, men and children, but affect women most seriously. According to the WHO/World Bank estimates of healthy years of life lost through premature death or disability, of all illnesses affecting both the sexes it is among sexually transmitted diseases (STDs) that the gap between the two is widest (9 to 1): in Latin America and the Caribbean, the number of years lost by males is 2.4 million, while for females the figure is 21.6 million years (see table 11). Despite the enormous difference, these infections receive minimal attention from health authorities, who wrongly assume that they are not fatal and affect only a small number of women who engage in promiscuous sexual behaviour, specifically prostitutes.

In fact, RTIs can lead to conditions that may be fatal to women, such as peritonitis, ectopic pregnancy, cervical cancer (discussed below), transmission of human immunodeficiency virus (HIV), the organism that causes AIDS, infertility, miscarriage, perinatal mortality and congenital infection. Infected children who survive may be left permanently disabled or die young (International Women's Health Coalition, 1991). Aside from their fatal consequences, RTIs may also impinge on the quality of life by producing chronic physical pain or weakness, and by disrupting normal sexual relations.

Risk factors for women include not only infection as a result of sexual contact but also infection due to the insertion of vaginal devices to prevent pregnancy (including the incorrect insertion of an IUD) or to induce an abortion; infection due to inadequate care during childbirth or abortion; or infection from unsanitary devices used during menstruation. In terms of sexual behaviour, women's vulnerability to such infections is attributable not only to their own behaviour but also to that of their male partners, for whom, in many societies, promiscuity is the norm. All too often, girls and women lack the power to decide when, with whom, and how they have sexual intercourse.

Most sexually transmitted diseases are reproductive tract infections (RTIs), although some, such as AIDS, are also systemic. Biologically, women are more

⁹ These countries include Brazil, Chile, Colombia, Dominica, Grenada, Honduras, Mexico, Peru, St. Lucia, St. Vincent and the Grenadines and the United States.

vulnerable to STDs than men, firstly because some of these diseases are transmitted more efficiently from male to female than vice versa; second, because the consequences for women are more serious than for men; and lastly because infected women often do not exhibit symptoms and therefore do not seek treatment. Furthermore, the heavier social stigma associated with STDs in women aggravates the already existing obstacles to timely diagnosis and treatment.

None of the information available in the region on RTIs and STDs other than HIV/AIDS is disaggregated by sex. The figures given here indicate the differences between the sexes in the number of AIDS cases reported between 1987 and 1993. The trends in male/female ratios during that period show that, although in the region as a whole, AIDS affected men more frequently than women, in a number of countries the ratios are plummeting, which indicates that AIDS is spreading among women at a rate equal to or even exceeding its spread among men. For example, between 1988 and 1993 the male/female ratio decreased from 23.1 to 3.7 in Argentina and from 31.0 to 4.7 in Ecuador. The largest proportion of female AIDS cases has been recorded in the English-speaking Caribbean, the Spanish-speaking Caribbean and in Central America, notably Honduras. Based on the numbers of cases notified in 1993, the male/female ratios in these areas were 2.2, 2.9, 2.8 and 1.9 respectively (PAHO/Regional AIDS Program/ETS, 1994).

In biological terms, the reasons for this rapid acceleration of the spread of AIDS among women lie in the fact that, compared with men, women are more likely to become infected after exposure to the virus, and in the fact that women are being exposed to the virus at increasingly younger ages, when they are biologically more susceptible. In addition, as a result of pregnancy and childbirth complications, women require blood transfusions more frequently than men. In Mexico, 62.6% of AIDS cases among women have been attributed to blood transfusions, compared to only 6.7% of male cases. Another study conducted recently in Rio de Janeiro confirmed that blood screening has a significant effect on the number of AIDS cases among women (Kimbal, González and Zacarías, 1993). In social terms, as previously noted, the power imbalance that is determined by gender and shaped by social status, age and culture, prevents a large number of women from protecting themselves against the sexual transmission of AIDS, whether it be by avoiding intercourse with infected males or insisting on mutual fidelity and on the use of a condom by their partners.

Given the frequency and asymptomatic nature of RTIs and women's reluctance to seek specific treatment for such conditions, no opportunity should be lost to screen women when they seek other primary health care services such as family planning, check-ups during pregnancy or vaginal cytology.

ii) *Malignant tumours.* Malignant tumours in the reproductive organs, which are a major factor in women's reproductive health, are frequently associated with a higher mortality and morbidity in women than in men, beyond the childbearing years. In all 24 countries of the region for which recent information is available, cancer is associated with higher female than male mortality in the 15-44 age group. The difference is noticeable also within the total population in countries such as Chile, Venezuela, Mexico, and Guatemala (see table 11). The origins of the variations among countries in male/female cancer mortality ratios should be sought not only in the differential incidence by sex and geographic region of certain cancers with varying degrees of mortality but also in the availability and accessibility of medical technologies for early detection and treatment of female-specific cancers.

iii) *Tumours of the reproductive organs.* Following is a discussion of the two types of cancer (cervical cancer and breast cancer) that have the highest impact on the

health of the women of the region because of their incidence and related mortality. Cervical cancer is most common in developing countries and among low socio-economic strata, while breast cancer predominates in industrialized countries and in strata with higher standards of living.

Malignant tumours of the reproductive organs lead to rates of morbidity and mortality that are higher among women than among men. Within the group of all malignant tumours, gynaecological cancers (cancer of the uterus, ovaries or breast) occur more frequently than any other type of cancer in women. According to information from the International Agency for Research on Cancer (IARC, 1990), based on reports of cancer incidence in selected localities in Brazil and the United States (Whelan, Parkin and Masuyer, 1990), gynaecological cancers accounted for between 43% and 57% of all cancers in women, a proportion far in excess of the rate for any other type of cancer. Among men, by contrast, malignant tumours of the genitalia are less common than lung or stomach cancer. At the same time, of total deaths from cancer among men and women, the proportion attributed to gynaecological cancers is in general twice or even three times the proportion attributed to cancer of the male genitals. The female/male ratio for healthy years of life lost to such cancers is 7 to 1 (see table 11).

Worldwide, the most frequent sites of malignant tumours of the female reproductive organs are, in descending order (Restrepo, 1993): breast, cervix, uterus, ovaries and "other gynaecological sites." Endometrial cancer is the most common of the cancers that affect the body of the uterus and occurs most often in postmenopausal women. The known risk factors for this type of tumour relate to hormone intake during menopause, obesity and high calorie consumption (Pagel and Bock, 1984). Cancer of the ovaries, although relatively less common, has a high mortality rate, and little is yet known about its epidemiology and causes. The residual group includes cancer of the vagina, the placenta, and the fallopian tubes, which are generally not common.

- *Breast cancer.* As noted above, breast cancer is the most common female cancer in the world and a leading cause of female death in industrialized countries, where its incidence is highest. Breast cancer has attained almost epidemic proportions in North America and Western Europe. In the United States, the 1991 figures indicated that 1 out of every 9 women was likely to contract breast cancer during her lifetime, whereas the proportion in 1960 was 1 in 20. Similarly, there was a massive increase of 24% in mortality from breast cancer in the United States between 1979 and 1986 (United States, National Institutes of Health, 1992).

Although the statistics for developing countries indicate a lower incidence of breast cancer than in industrialized countries, they also show a marked increase in the risk of contracting it, exemplified by the records of Colombia (Cali), Costa Rica, Cuba and Puerto Rico (Restrepo, 1993). According to the WHO/World Bank estimates, in 1990 the number of healthy years lost to premature death or morbidity due to breast cancer in Latin America and the Caribbean was 4.7 million (see table 11).

The positive relationship that has been observed worldwide between the level of development and breast cancer also exists in the countries of the region. Table 12 shows the breast cancer mortality rates for the 35-64 age group in selected countries of the Americas. Uruguay, where the figures are even higher than in the United States and Canada, is followed, in descending order, by Trinidad and Tobago and Argentina, and, some way behind, Cuba and Costa Rica. With the exception of Costa Rica, the lowest rates of breast cancer are to be found in Central America.

The link between development level and breast cancer can be seen not only among, but also within, the countries of the region, among population groups of differing socio-economic composition. A study conducted in Argentina, for instance, revealed a gradient in the rates of breast cancer mortality directly related to the level of socio-economic development of the different provinces of the country (Matos and others, 1990). However, although there is a degree of parallelism between mortality and incidence, the two indicators do not vary concomitantly with certain socio-economic variables. In the United States, for example, the incidence of breast cancer is **lower** among black women than among white women, but breast cancer mortality is **higher** (United States, National Institutes of Health, 1992).

The causes of this worldwide increase in breast cancer are still a matter of discussion and speculation, and no significant progress has been made toward an understanding of the problem. The risk factors most often mentioned in the recent literature include (Restrepo, 1993): heredity, which is a factor especially during premenopause; age —while breast cancer does occur in young women, it is most common after the age of 35 and the rates of incidence and mortality remain high among women in much older age groups; patterns of reproductive behaviour— first pregnancy after the age of 30 and having fewer children; early menarche and ovaries active longer; nutritional factors related to the consumption of fats and alcohol; frequent exposure to X-rays; and use of contraceptive pills over long periods of time (still controversial).

The disparity between the magnitude of the problem and the amount of public resources allocated to breast cancer research and prevention has come to public notice as a result of the pressure exerted in recent decades by organized women's groups in the United States. Such public attention has paved the way for technical progress in early diagnosis and treatment and, recently (1993), an increase in funding for breast cancer research.

As breast cancer detection techniques are introduced in developing countries, careful consideration needs to be given to whether they meet risk criteria and how they mesh with the network of treatment services; at the same time, a major boost is needed for education and social communication (Restrepo, 1993).

- *Cervical cancer.* In Latin America and the Caribbean, cervical cancer is a more widespread public health problem than breast cancer, even though a simple, effective, low-cost technology (the vaginal cytology test invented by Papanicolaou) for detecting the cancer at stages at which it is 100% curable has existed for more than 30 years, which is not the case for breast cancer. Furthermore, this cancer can be treated in the early, pre-invasive stages using relatively simple technologies that are generally available in all the countries (Restrepo, 1993).

The significance of this problem in public health terms lies not only in the high frequency of cervical cancer but also in the fact that it most often affects women from the lower socio-economic strata, who are the least protected by existing health and gynaecological services.

The highest mortality rates for cervical cancer are to be found in Latin America and the Caribbean, Asia and Eastern Europe. In Latin America and the Caribbean, however, the true extent of the problem exceeds the official figures, which represent substantial underestimates compared with what is actually happening in treatment centres and with the data gathered from the few incidence and hospitalization registers that exist. In this light, the official cervical cancer mortality rates for the 35-64 age group in selected countries of the region (see table 12) are striking. The lowest rates within this group —in contrast with the figures for breast cancer— are those for

Canada, the United States and Argentina, while the highest are those for Jamaica, Mexico, Chile and Nicaragua.

According to the most reliable information available to PAHO, there are an estimated 20,000 to 30,000 deaths from cervical cancer annually in the region of the Americas. The majority of them are preventable and occur among women of childbearing age (Restrepo, 1993). Cervical cancer mortality trends are stationary in the majority of the countries, even those where overall mortality rates have declined substantially, as in Cuba, possibly Uruguay, and some provinces of Argentina. In other countries, such as Chile, Colombia and Venezuela, a slight rise has been noted (PAHO, 1989-1990). This worrisome development is due to an expansion of the population at risk without a corresponding increase in health resources to serve it, and to the deterioration in health services brought about by the economic crisis of the 1980s.

Within the countries, too, there is an inverse relationship between the frequency of cervical cancer and socio-economic level. Thus, in Argentina, mortality rates for cervical cancer are higher in less economically developed provinces than in Buenos Aires province (Matos and others, 1990); in the United States, the incidence rates of invasive cervical cancer are higher for black women than for white (American Cancer Society, 1989), and the incidence of cervical cancer is twice as high among Hispanic women as among white non-Hispanic women (United States, National Institutes of Health, 1992).

The risk factors most commonly associated with cervical cancer are linked to sexual and reproductive behaviour: female and male sexual promiscuity, sexual activity from an early age and numerous pregnancies, as well as the use of oral contraceptives, although, as with breast cancer, this is a matter of intense controversy. There is also some evidence of a causal relationship with certain viruses, such as the papilloma virus, although, since their precise role is as yet unknown, it has not been possible to suggest any specific preventive measures (PAHO, 1990). The most effective protection continues to be secondary prevention through vaginal cytology, a screening method that targets the entire population of adult women who are or have been sexually active, with priority being given to those over 25, who make up the highest-risk age group.

Generally speaking, cervical cancer control programmes in Latin America and the Caribbean have been hindered by low population coverage for vaginal cytology, a problem that is compounded in many countries by inefficiency in processing test results, which prevents early diagnosis and treatment (Restrepo, 1993). Local studies have also brought to light severe limitations in the services responsible for giving women the necessary information on cytology testing and the importance of following up positive test results (Ramos and Pantelides, 1990). There is an urgent need to remove such obstacles, not only in order to prevent women being harmed, but also from the cost/benefit standpoint, since at pre-invasive stages cervical cancer can be treated successfully and cheaply, whereas in its more advanced stages it requires considerably more costly treatment by surgery or radiation.

- *Other types of cancer.* Within the group of malignant tumours that affect the sexes to a significantly different extent, the foremost is **cancer of the lung**, trachea and bronchii, for which the incidence and mortality worldwide tend to be higher among males than among females. As can be seen from the official mortality figures gathered by PAHO, male mortality from this type of cancer tends to be twice as high as female mortality, and can be up to 10 times as high in some countries, such as Uruguay. In addition, according to the WHO/World Bank morbidity-burden estimates (see table 11),

the number of healthy years lost to this cancer is three times higher for men than for women.

The documented relationship between this type of cancer and tobacco use underlines the influence of gender-based cultural factors that encourage smoking among men and discourage it among women. Unfortunately, these factors, which once protected women's health, are less powerful now as a result of changes in the roles and expectations associated with the concept of femininity. In the last 30 years, men's cigarette smoking has stabilized and even declined in industrialized countries, whereas in developing countries its use by both sexes, particularly young women, has increased (Robles, 1993). The deleterious effects of smoking have become dramatically evident in the United States, where the female mortality rate from lung cancer has increased approximately 400% since 1960, to the point where, in 1987, lung cancer overtook breast cancer as the leading cause of death among women (United States, Center for Disease Control and Prevention, 1993).

Other types of cancer that reveal striking sex-based differences of incidence include thyroid cancer and gall bladder cancer, both of which have been documented more frequently in females than in males worldwide. Cholelithiasis also occurs more frequently among women. Stomach cancer tends, in general, to be more prevalent among men, while cancer of the colon occurs more frequently and causes higher mortality among women. In seven out of the nine Latin American countries with reasonably reliable mortality data, the ratio of male to female mortality from cancer of the colon ranges from 0.54 in Uruguay to 0.87 in Chile; the exceptions were Mexico and Venezuela, with ratios of 1.0 and 1.11, respectively.

D. MIDDLE AND OLD AGE

With an increase in life expectancy in developing countries, an ever-growing proportion of the population is reaching middle and old age. As a result of women's greater longevity and correspondingly greater share of the elderly population, the term "feminization of old age" has been coined. The feminization of old age refers not simply to the numerical prevalence of females in this group, but also the fact that the problems of health and of access to adequate care experienced at these ages are proportionately more frequent among women than among men. Some of the problems or conditions that affect mainly women's health after the childbearing years are discussed below, with particular reference to the countries of Latin America and the Caribbean.

Menopause, that is, the changes in the ovarian function that signal the end of the reproductive period, can have major effects on women's health during middle and old age, including in particular bone, cardiovascular and genital/urinary tract conditions. Notwithstanding the fact that all women who survive their childbearing years are inescapably confronted with the risks, needs and problems associated with menopausal hormone changes, this transition and its consequences have received little attention in health research and practice. One issue of vital importance, which has only recently begun to be studied in industrialized countries, is the use (or non-use) of hormone replacement therapy (HRT). On the one hand, HRT treatments can eliminate the most troublesome symptoms of menopause and **probably** provide some protection against osteoporosis and cardiovascular disease, which can endanger health during middle and old age; on the other hand, however, it is associated with an increased risk of certain

types of cancer, particularly breast and endometrial cancer (Coe and Hanft, 1993). Thus, any decision women make as to whether or not to use HRT may involve serious health risks for which there are still no satisfactory answers.

Cardiovascular diseases, which are usually considered "masculine" conditions, are one of the leading causes of female mortality and morbidity, particularly during the post-reproductive years. In the WHO/World Bank estimates for Latin America and the Caribbean (table 11) cardiovascular diseases stand out as one of the categories with the biggest share of the mortality and morbidity burden. Studies conducted in the United States show that, for women, approximately 90% of heart disease occurs after menopause (United States, National Institutes of Health, 1992). Among those countries of the region with the most reliable mortality records, it can be seen that the ratio of male/female mortality attributable to heart disease reaches the maximum disadvantage to men in the 35-44 age group and then begins to narrow, reversing itself occasionally after the age of 64 (as in Mexico in 1990). Although the overall sex differentials in mortality and morbidity from heart disease are not substantial (45.9 DALYs compared with 48.9, according to the WHO/World Bank estimates for Latin America and the Caribbean), attention continues to focus on males, while the risk to females is clearly underestimated, not only at the research stage, but also in terms of prevention, diagnosis, and treatment. In the United States, for example, clinical studies on the preventive value of certain medicines have been conducted almost exclusively on males, and cardiovascular surgery is performed proportionately more on males than on females.

Over total populations, in 8 of the 10 Latin American countries with the most reliable information, **cerebrovascular diseases** are associated with higher mortality rates for women than for men (see table 13). Also, in Latin America and the Caribbean as a whole, the loss of healthy years of life as a result of cerebrovascular diseases is higher for females than males (see table 11). Although the incidence of cerebrovascular disorders increases substantially after the age of 45, these diseases rank among the five leading causes of female mortality beginning at the age of 25, and from then on female mortality rates tend to be higher than male rates. In 4 of the 10 countries studied (Chile, Guatemala, Mexico and Venezuela), this excess female mortality occurred during the reproductive years.

The particular risk factors for females include hypertension and obesity, both of which are aggravated by postmenopausal hormonal changes and the use of oral contraceptives during the childbearing years (WHO, 1989). Obesity—a risk factor associated with hypertension, cardiac diseases, cerebrovascular disorders and diabetes—besides occurring more frequently in females than males, is particularly common in low-income groups. In the United States, for example, 44% of black women, 42% of Mexican women, 40% of Puerto Rican women, 31% of Cuban women and 24% of non-foreign white women are overweight (United States, National Institutes of Health, 1992).

Diabetes mellitus is one of the 10 leading causes of death in all the countries of the region and affects mainly women. This tendency can be seen in all the countries studied within the group with the most reliable mortality records (see tables 11 and 13). Diabetes is also a major cause of morbidity, constitutes a risk factor for cardiovascular disease, and can lead to blindness, kidney damage, and loss of the lower extremities. Like cerebrovascular diseases and obesity, diabetes is more common not only among women but also among lower income groups.

Osteoporosis, a painful, deforming and highly disabling degeneration of the bone tissue, occurs eight times more frequently among females than males, affecting

between one third and one half of postmenopausal women. The incidence of osteoporosis increases drastically with age. In the United States, for example, for women aged between 45 and 49 the rate is 18%; in the 55-59 age group it is 58%; and for women older than 75, it is 89% (United States, National Institutes of Health, 1993). Hip fractures —a specific type of lesion caused by accidental falls— occur twice as frequently among older women as among older men because women's lower bone density exposes them to particular risk. Figures from the United States show that around 20%-40% of people who suffer a hip fracture die within six months of the fall, while those who survive are left partially or totally incapacitated (United States, Center for Disease Control and Prevention, 1993). This trend is corroborated by the mortality statistics of Argentina, Chile, Costa Rica and Uruguay, which indicate higher female mortality rates from accidental falls from the age of 65 onward, and especially after the age of 75. Apart from the hormonal changes associated with menopause, an important determining factor of osteoporosis is calcium deficiencies originating in youth.

Urinary incontinence affects females from 2 to 5 times more frequently than males; despite the constraints that it places on the social life of the individual, its non-life-threatening nature means that it frequently goes untreated and, even worse, that no efforts are made to prevent it. **Rheumatoid arthritis** is an immunological disease that occurs three times more often in females than in males, and the gap widens with age; it has disabling consequences and reduces life expectancy. Other less common immunological diseases affecting females disproportionately include **thyroid diseases**, **systemic lupus erythematosus** and **multiple sclerosis**.

Aging females can with reason be considered one of the most physically and economically vulnerable groups in society: first, because of their higher morbidity resulting from physiological differences aggravated by the cumulative effects of malnutrition, closely spaced pregnancies, physical and psychological debilitation from a dual workload (at home and on the job); and secondly because of their social and economic subordination. Older women's vulnerability is compounded by loneliness due to the fact that they outlive their male partners, and by the fact that they have less protection from health and social security benefits as a result of their disadvantaged work status in earlier years.

The lack of imbalance between needs and resources, which afflicts women disproportionately during their post-reproductive years, illustrates the way in which age-, sex- and gender-related biological and socio-economic factors interact to exert a triple constraint on older women's access to the health protection opportunities available to the general population. Interventions to redress this imbalance must be based on a recognition that gender inequities have a cumulative effect over the entire life span, and that such measures should therefore not be confined to any one age group but should rather be framed within a comprehensive strategy for the elimination of the social, economic, labour and social security disadvantages experienced by women from birth.

E. HEALTH CONDITIONS AND PROBLEMS FOUND IN ALL AGE GROUPS

There are four areas in which highly gender-specific health problems occur throughout life, albeit in varying degrees depending on age: nutrition, mental health, occupational health and sexual and domestic violence.

1. Anaemia and malnutrition

Because of their childbearing role and the hormonal changes they undergo during their life, women's nutritional requirements differ from those of men. Between the onset of menstruation and menopause, the female body demands an iron intake that is three times the adult male requirement, and is even higher for women using intrauterine devices. Calcium intake during youth is also a critical factor in avoiding osteoporosis in later years. Furthermore, the female's nutritional needs increase considerably during pregnancy and breast-feeding, and if they are not adequately met the mother's health is compromised and the risk of perinatal mortality and of physical and mental problems in the offspring increases.

Malnutrition is perhaps the most important health problem for women in developing countries. Both obesity and undernourishment are forms of malnutrition, and both affect women disproportionately. Obesity is in fact more common among men, not merely in the post-reproductive years but throughout the life cycle. Interestingly, it is not a disease of the wealthy but has been shown rather to have an inverse relation to socio-economic status (Gueri, Patterson and González, 1993), and is a particular problem in the English-speaking Caribbean. Iron-deficiency anaemia is known to be the greatest nutritional problem women face, both worldwide and regionally, especially during pregnancy —indeed, it afflicts more than one fourth of the region's females. Yet it is only prenatal services —whose population coverage is very limited in any case— that deal with the problem, and those programmes do little more than maintain women's pre-pregnancy nutritional level, i.e., they provide too little too late. Experts agree that treatment for iron deficiency should begin in childhood (Gueri, Patterson and González, 1993).

To reiterate what has been stated in previous sections, under normal conditions, but especially in conditions of poverty, the nutritional deficit in any given population is more severe in females than males because it is more difficult to satisfy women's biological requirements. This situation is often aggravated by cultural patterns that give males preference in the household distribution of food, especially food based on animal protein. It is women themselves who are responsible for food distribution, but such discriminatory behaviour stems from gender stereotypes that place a higher value on the man's role and his contribution to the household economy.

Restating the point that the "normal" —or at least statistical— tendency is toward higher male mortality from most causes common to both sexes, the cases where this trend is inverted merit attention. The figures for mortality due to anaemias and nutritional deficiencies (see table 14) indicate that mortality from anaemia in more than half the countries of the Americas —including the industrialized nations— was higher for females than for males during the 1980s. A smaller, but not insignificant, proportion of these countries also indicated excess female mortality from nutritional deficiencies. The WHO/World Bank estimates of healthy years of life lost to disease bear out the tendency of females to have a greater morbidity and mortality burden (see table 11).

Although malnutrition is rarely fatal, it does substantially diminish the quality of life by generating a propensity to chronic fatigue, reducing productivity, and increasing vulnerability to infection and the risk of mortality during childbirth.

2. Mental health

Women's mental health problems, and their stereotypical definition, are closely associated with the social roles women are assigned and their position of subordination and social disadvantage in the community.

The incidence of different types of mental disorder varies substantially according to sex. The emotional disorder most frequently diagnosed is clinical depression, which is two to three times more frequent among women than among men and occurs at all ages (Paltiel, 1993). Table 11 shows the WHO/World Bank estimates of mortality and morbidity from clinical depression. A number of authors agree that women's subordinate position contributes to the occurrence of depression: their disadvantage, reinforced by socialization patterns and social expectations that oppose female independence and self-determination, creates emotional conditions of dependence or helplessness and low self-esteem, leading to depression. Cross-cultural studies suggest that, contrary to common belief, the high incidence of depression in middle age has less to do with menopausal hormonal changes than with the range of social options open to women at that age (Paltiel, 1987).

Other emotional problems affecting women specifically, that have not been given the attention they deserve, concern traumas due to sexual abuse and domestic violence and to the physical and emotional debilitation produced by an excessive workload and by the conflict of domestic and productive roles faced by women who work outside the home, especially mothers with small children.

As regards sex-based differences in substance abuse, it is well known that alcoholism and drug use are considerably more widespread and socially acceptable among men than among women; that tranquilizers are more commonly prescribed to women, on the assumption that women have a greater tendency to "create" their own illnesses; and that cigarette smoking, historically more prevalent among men, is spreading more rapidly among women, especially younger women. The rapid spread of smoking among women is a product of their growing integration into previously male-dominated fields of activity and a consequent expansion of their opportunities to control income and consumption. At the same time, the publicity campaigns of tobacco multinationals have specifically targeted women, particularly young women, in an attempt to stimulate cigarette smoking by focusing on such "feminine" issues as emancipation, equality of the sexes, physical attractiveness and, as part of the concept of attractiveness, slimness. Tobacco use affects not only the health of women smokers themselves, of course, but also that of their children if smoking continues during pregnancy.

3. Occupational health

Both men and women are exposed to similar occupational risks to the extent that they do the same jobs. Women, however, because of their physiological functions of pregnancy, breast-feeding and menstruation, may incur additional risks and therefore require special care. This has sometimes led to their exclusion (whether pregnant or not) from certain types of job by employers who claim to be protecting women's maternal potential. It is interesting that research on specific risks of this kind also focuses on women's reproductive product, while ignoring that of men who are exposed to the same risks.

Occupational health has not been widely studied in the Americas. Even less is known about women's occupational health because studies have focused on men as the paradigm of humanity and because women are concentrated chiefly in the service, informal and unpaid domestic sectors and not in industrial jobs, which are those prioritized in occupational health research.

The exposure of each sex to the different occupational risks depends on the type of work in which the male or female work force is concentrated in each country. One problem common to a variety of work environments in a number of countries and fields of work is that there is no legal provision for a mother to obtain the rest her body needs before and after childbirth and to be allowed to breast-feed her baby.

Another type of risk common to most women in the labour force, but particularly working-class women with small children, arises from what is known as the "double shift" or the "triple shift" — a reference to the fact that a woman has to make her productive role fit in with her culturally assigned household (and, on occasion, community) roles. Defining work as time spent on the job plus time spent on household chores and child care, the International Labour Organization (ILO) has estimated that the average man devotes 50 hours per week as against the average woman's 80 hours per week. There are numerous studies analysing the effect of a mother's work on the development of her children, whereas almost no research exists on the effects of the availability or otherwise of day-care centres on the health and well-being of mothers. What is more, this excessive workload does not ease up once the children are grown, because middle-aged women then begin caring for aging parents.

Women's traditional occupations in the household environment are not free of risk, either. Some of the risks are fatal, yet they have received little attention in terms of research or intervention. For example, the handling of fuels for cooking and the lack of ventilation in the areas where they are used are sources of accidents and chronic respiratory conditions. Carrying heavy loads of water and fuel has been associated with uterine prolapse, particularly during pregnancy. Although these risks are widespread, the fact that no economic value is attached to domestic tasks has ensured that they remain virtually invisible in the context of actions relating to occupational health.

4. Violence against women

Since this issue has been discussed in detail in other ECLAC documents (Rico, 1992 and 1996), this section will deal with the problem only from a public health perspective, with specific reference to domestic violence and sexual abuse. It should be borne in mind that it is only in the last few years that this issue has found its way onto the health sector's agenda for discussion and action.

The recognition that violence against women is a public health problem is a product of the gradual understanding of the damage that domestic violence and rape do to women's health. Although abuse is an important factor in determining illness and injury among women, it is still frequently overlooked by the medical profession. Studies in the United States have shown, for instance, that between 17% and 25% of all cases attended in emergency units involve battered women, yet care providers typically identify fewer than 5% of injuries or illnesses as suggestive of abuse (McLeer and Anwar, 1993). In fact, the majority of injuries related to domestic violence are non-traumatic and tend to be treated in primary care units (Stark, 1981). Moreover, it must be remembered that abused women's access to health care is frequently blocked by their abuser.

Although the foregoing information concerning the proportion of abuse cases that are not identified as such by the emergency services and are thus not treated adequately as such, refers to the United States, there is no reason to believe that the situation is any more encouraging in Latin America and the Caribbean. Failure to identify these cases can be attributed largely to a lack of provider training and the absence of institutional care protocols in emergency units, shortcomings which prevent domestic violence from being recognized as a medical problem and, consequently, impede women's access to the services they need (Institute of Medicine, 1993).

It is difficult to determine the true prevalence of this problem in the region. The victims' feelings of shame and low self-esteem, and their fear of reprisals or perception that little support is forthcoming from the judicial system, lead to substantial under-reporting. Nevertheless, a fair number of local studies enable the magnitude of the problem to be gauged. A review of nine studies from Latin America found, for instance, that between 25% and 50% of the women surveyed admitted having been physically abused by a present or former partner (Heise and others, 1994).

These investigations have made it possible to reach a better understanding of such violence by bringing to light characteristics such as the following: i) in 70%-90% of cases, the perpetrators are the women's partners; ii) the 20-39 age group is most likely to suffer domestic violence; iii) the 11-16 age group is most vulnerable to sexual abuse; iv) between 45% and 60% of female homicide victims were murdered within the family environment, and the majority of those by their spouses; and v) the majority of abusers and victims come from families with histories of domestic violence (PAHO, 1993c).

The information available has made it possible to identify the following pathologies and conditions as expressions of the impact of violence on the physical and mental health of women: suicide, homicide, sexually transmitted diseases, injuries, pelvic inflammatory disease, unwanted pregnancy, miscarriage, chronic pelvic pain, headaches, gynaecological problems, substance abuse (alcohol, drugs, tobacco), other self-destructive behaviours, asthma, irritable bowel syndrome, partial or permanent disability, post-traumatic stress disorders, depression, anxiety, sexual dysfunction, eating disorders, multiple personality disorders, obsessive/compulsive disorders.

The presence and persistence of violence against women is associated with the imbalance in the power relationship between the sexes and women's subordinate position in societies where both law and tradition still tolerate, and even foster, such behaviour.

IV. WOMEN AS PROTAGONISTS IN THE DEVELOPMENT OF HEALTH

The social constructs of gender have an undeniable influence on the division of labour in the production of health, both within the formal health sector and at the informal levels of the family and the community.

As already noted, the process of socialization differentially conditions the inclinations of women and men toward those activities, occupations and functions that are considered compatible with the stereotypes that culturally define their own gender. Thus, while the masculine ethos stresses the values of autonomy, leadership and logic, the feminine is associated with dependence, caring for others and emotionality (Pizurki and others, 1987). Women's strong propensity to select service occupations is clearly illustrated by the fact that a sizeable proportion of the female labour force devotes itself to the health sector, and that within this sector women comprise the majority of workers.

Beyond the quantitative differences in men's and women's participation in the health sector, there are qualitative differences clearly associated with gender distinctions and hierarchies. These differences can be seen in the gender division of labour, not only in terms of occupations, professions and specializations, but also, within these categories, in terms of levels of autonomy, decision-making and remuneration. Although women constitute approximately 80% of all health workers in the region, they represent only a minority in terms of power and decision-making within the system. Statistically speaking, women are concentrated in the sector's lowest brackets of remuneration, decision-making and prestige (Pizurki and others, 1988). Moreover, the official health systems of most countries in Latin America and the Caribbean depend on the work of (mainly female) health promoters who offer their services to the communities as unpaid volunteers.

Like health profiles, such organizational differences within the health sector are influenced not only by individual motivations that are acquired and reinforced during the socialization process, but to a very large extent also by the institutional control mechanisms that facilitate or hinder, depending on sex, access to and control over positions and resources.

Women's leading role in the development of family and community health dates back to the Middle Ages, when women became the pioneers of modern medicine. Women have always played a key role in the development of health within their families and communities, providing nearly all the unpaid informal care services and exercising a decisive influence on the health practices of others. Women have been the foremost providers of primary health care: they fetch the water, prepare meals, feed the children, and take care of the young, the old and the disabled. It is also usually mothers who take their children to health centres and to be vaccinated, and who inculcate habits of hygiene and cleanliness within their families. In Canada, for example, the Federal/Provincial/Territorial Working Group on Women's Health has estimated that 90% of all health care takes place at this informal level and that three fourths of all illnesses are treated outside the formal health system; these figures are

very likely higher in developing countries. It is also widely acknowledged that an increase in women's income and education means an improvement in the health and nutrition of the entire family, at comparatively higher proportions than when men's income and education increase.

During the last 15 years, women have played a crucial role in the economies of Latin America and the Caribbean as buffers against the effects of the debt crisis that engulfed the region in the 1980s. Indeed, UNICEF coined the term "invisible adjustment" to refer to women's contribution during that period. The reduction in health services made necessary by the implementation of structural adjustment measures in response to the crisis obliged women —especially working-class women— to fill an institutional void that was making it difficult for them to fulfil "their" responsibility for caring for their families' health and nutrition by taking on additional tasks at the expense of their own time, earnings and health.

The economic crisis propelled women into the labour force in even higher numbers than in previous decades, and their earnings became critical to family survival. Over and above these earnings, however, they also contributed their time, extending their workdays without remuneration in order to do the work of the institutional health services that had been cut back. The fact that, in social terms, the basic responsibility for the reproductive domestic role is borne by women, led many of them to break their domestic isolation and ally themselves with other women to develop forms of community organization such as communal dining halls and soup kitchens, which could ensure their family's subsistence by meeting its needs in a collective fashion. This massive incursion of women into the public sphere and community power structures unleashed irreversible processes of egalitarian participation that made of the so-called "lost decade" the "success decade" for the women of Latin America and the Caribbean (López Montaña and Ronderos, 1994).

Many health interventions are designed in such a way that they depend essentially on the participation of women, who must bear the burden of poorly designed technologies that may be cheap, but are very time-consuming. An excellent illustration of this is the design of child survival strategies: "those of the UNICEF Growth, Development, Oral rehydration, Breast-feeding and Immunization (GOBI) programme may be inexpensive, but they are extremely costly in terms of time because they require a further input from those women who are most likely to have time constraints because they are the family breadwinners" (Antrobus, 1993).

The majority of the achievements of primary health care programmes in the areas of nutrition, family planning and, of course, child care have been the result of women's unremunerated work. Under the structural adjustment programmes, for example, health care cuts were officially justified with reference to the fact that much of such care takes place in the home (Cornia, Stewart and Jolly, 1987). By the same logic, the rationalization for the chronic scarcity of resources for care of the elderly has traditionally been that the elderly are cared for by their "families," a notion that hides the fact that it is not the family as a group, but adult daughters, who almost exclusively take on this role, even if it conflicts with their other productive and domestic roles (Sánchez-Ayéndez, 1993). It is such erroneous assumptions about women's "free time" that have formed the basis for health policies and projects geared to optimizing women's societal contribution by making them more efficient in performing their traditional roles —in this case, those of mother, builder of family health, and voluntary community health worker.

In spite of the sustained and crucial role women have historically played in the social production of health, their contribution remains invisible, undervalued and

unsupported since it is taken to be an intrinsic expression of feminine nature, a duty of the female gender and an extension of women's domestic work.

During the 1980s, a women's health movement grew up in Latin America and the Caribbean chiefly out of the three-way interaction of the grassroots women's movement, the non-governmental organizations of women and health professionals, and the feminist movement (Portugal and Matamala, 1993). The incorporation of state health service workers (auxiliary, administrative and professional personnel), beginning in the early 1990s, was a sign that women were coming together from their different areas of everyday work —the home, the community and health institutions— and mobilizing around the issue common to all of them: women's disadvantage in the production and distribution of the benefits of health development.

The unfolding of this movement resulted in proposals and measures linked mainly to women's reproductive health and rights in the context of government health services and population policies; but it also contributed to a more open debate and a greater public awareness of the issues involved in comprehensive health, such as violence against women (Portugal and Matamala, 1993). The formation of a regional women's health network, Isis International, in 1984, and the subsequent publication of *The Latin American and Caribbean Women's Health Network Bulletin*, were major landmarks in the history and development of this movement.

An analysis of the dynamics of health development shows that women, far from being shut out of this process, as the 1980s "integrationist" proposals implied, were in fact the pioneers and backbone of health development. Consequently, it is no exaggeration to state that, largely as a result of existing inequities, at the macro level the health care system rests on and is maintained by the labour, time and gender roles of women.

V. BASIC ELEMENTS FOR THE DESIGN OF POLICY PROPOSALS

Health policy proposals incorporating a gender perspective seek, on the one hand, to integrate the specific interests of women in the planning and production of health and, on the other, to tap the potential of health-development initiatives to boost women's self-esteem and autonomy both at the individual and, particularly, the collective levels. This strategy of strengthening women's autonomy and organizational capacity seeks to ensure that women's interests, knowledge and skills are used effectively to achieve greater control over the factors that determine their own well-being, and a shift in the orientation of the social process of health production.

The shift in orientation that is being sought is not a matter of integrating larger numbers of women into the process, nor raising their productivity as they perform the formal and informal roles they have traditionally carried out within the health system; it is a matter of changing the terms on which women are involved in the process of health development (León, 1993) in such a way as to guarantee the equitable participation of women and men, the effectiveness of health interventions, and the sustainability of the health-development process.

Concrete examples of attempts to incorporate this approach can be found in the Colombian Ministry of Health policy, "Health for Women and Women for Health" (Londoño and Arango, 1992), which was officially announced in 1992, and in the Women's Comprehensive Health Care Programme developed by the Department of Health of São Paulo, Brazil, and redesigned, with women's participation, in 1985 (Portugal and Matamala, 1993). A vital aspect of the design of these policies is that they were not the result of a "top-down" process but rather the product of organized action and political pressure by women's movements in different sectors of these countries.

The starting-point for policies such as these is a recognition that there are differences between women and men and that those differences themselves vary depending on the social, economic, ethnic, age, or cultural context in which they arise. Once, such differences have been identified, these policies seek, on the one hand, to incorporate into general programmes measures that respond effectively to gender interests and specific needs and, on the other, to implement special measures to eliminate women's relative disadvantage in the production and enjoyment of health.

This double strategy strives not only to change the institutional, legislative and regulatory contexts but also to develop and strengthen women's grass roots groups and organizations so that they can act as pressure groups to bring about "bottom-up" changes in policy design and to ensure that such changes are in fact implemented.

This approach places local planning at the centre of action and emphasizes participatory intersectoral interventions geared to creating conditions and opportunities that place women on an equal footing with men, not only so that they can achieve their maximum potential in terms of health, but also to enable them to participate in the design, construction and orientation of a healthier, more equitable and fairer society.

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ANNEX

Table 1
**MALE AND FEMALE MORTALITY IN THE 1-4 AGE GROUP IN SELECTED
 COUNTRIES OF THE AMERICAS***
(Rates per 1,000)

Countries	Period ^b	Male	Female
Trinidad and Tobago	1977-1987	3.4	3.4 ^c
Mexico	1977-1987	14.5	16.5 ^c
Colombia	1971-1975	27.0	30.7 ^c
	1976-1980	14.0	20.6 ^c
	1981-1986	12.8	6.1
	1980-1990	11.0	5.6
Paraguay	1980-1990	9.6	11.9 ^c
Dominican Republic	1981-1991	17.5	20.4 ^c
Brazil (national)	1971-1975	27.0	22.0 ^c
	1976-1980	21.0	14.0
	1981-1986	8.0	14.0 ^c
Brazil (north-east)	1981-1991	16.7	20.4 ^c
Ecuador	1972-1976	46.0	42.1
	1977-1981	26.3	27.9 ^c
	1982-1986	24.6	25.8 ^c
Guatemala	1977-1987	43.6	47.0 ^c
Peru	1982-1992	29.0	31.0 ^c
Bolivia	1979-1989	51.0	51.0 ^c

Source: Demographic and Health Surveys (DHS), conducted by national institutes of the different countries and coordinated by the Institute for Resource Development/Westinghouse/Macro Systems (1985-1991).

* Countries in descending order of female life expectancy at birth.

^b Most recent period for which information is available.

^c Female mortality equal to or greater than male mortality.

Table 2
**MALE/FEMALE MORTALITY RATIOS BASED ON UNADJUSTED MORTALITY RATES
 FOR THE 1-4 AGE GROUP BY SELECTED CAUSES,
 IN SELECTED COUNTRIES OF THE AMERICAS ***

Country	Year	Overall ratios for all causes	Enteritis and other diarrhoeal diseases	Acute respiratory diseases	Nutritional deficiencies	Preventable by immunization	Accidents and violence
Canada	1980	1.38	0.47	1.61	3.78	1.89	1.66
	1985	1.25	1.88	0.86	1.88	-	1.55
	1990	1.28	-	1.18	-	-	1.82
United States	1980	1.33	1.17	1.21	0.95 ^b	0.95 ^b	1.43
	1985	1.30	0.95	1.07	0.87 ^b	0.00	1.47
	1990	1.30	1.00	0.93 ^b	-	1.50	1.48
Costa Rica	1980	1.08	1.32	1.07	0.48	0.32	1.42
	1985	0.82 ^b	1.11	0.87	1.91	-	1.52
	1989	1.05	1.52	0.59	-	-	1.63
Cuba	1980	1.16	5.74	1.08	0.67	-	1.33
	1985	1.10	1.43	0.92 ^b	1.28	-	1.43
	1990	1.25	2.11	0.96	-	-	1.77
Uruguay	1980	0.94 ^b	0.73	0.97	0.58	-	1.45
	1985	1.37	0.32	1.24	0.39	-	2.22
	1990	1.04	-	0.96	1.90	-	0.68
Chile	1980	1.13	0.96 ^b	0.87 ^b	0.64	0.58	1.49
	1985	1.23	0.96	1.00	1.59	-	1.45
	1989	1.30	1.43	1.07	0.33	1.50	1.66
Argentina	1980	1.12	0.83 ^b	1.20	0.98 ^b	1.05	1.34
	1985	1.08	0.84 ^b	1.02	0.76 ^b	0.90 ^b	1.54
	1989	1.13	1.03	1.11	0.82	0.50	1.50
Venezuela	1980	1.09	1.03	0.96 ^b	1.11	0.91 ^b	1.23
	1985	0.96 ^b	0.85 ^b	0.92 ^b	0.78 ^b	0.81 ^b	1.01
	1989	1.01	0.98 ^b	1.06	0.65 ^b	0.56	1.26
Mexico	1981	1.07	1.07	1.02	1.01	0.76 ^b	1.38
	1985	1.07	1.00	0.96 ^b	1.01	0.87 ^b	1.45
	1990	1.08	1.00 ^b	1.03	0.98 ^b	0.95 ^b	1.41
Guatemala	1980	0.99 ^b	0.99	1.01	1.00	0.91 ^b	1.04
	1984	0.93 ^b	0.97 ^b	0.85 ^b	0.86 ^b	0.78 ^b	2.12

Source: Pan American Health Organization, Technical Information System, 1993.

* In descending order of female life expectancy at birth.

^b Female mortality equal to or greater than male mortality based on a minimum of 40 deaths.

Table 3
**CHILDREN UNDER 5 TAKEN TO HEALTH SERVICES DURING THE TWO WEEKS PRIOR TO SURVEY,
 BY SYMPTOM AND SEX, IN SELECTED COUNTRIES OF THE AMERICAS ^a**
(Percentages)

Country and year ^b	Symptom and Sex					
	Acute respiratory infection (ARI)		Fever		Diarrhoea	
	M	F	M	F	M	F
Trinidad and Tobago (1987)	-	-	-	-	41.7	58.5
Colombia (1990)	70.7	63.4	67.5	59.6	52.5	37.9
Paraguay (1990)	69.5	68.6	63.8	62.2	50.7	53.7
Dominican Republic (1991)	43.5	41.5	45.4 44.3		26.3	23.9
Brazil (north-east) (1991)	30.0	34.7	37.1 35.4		28.8	19.3
Guatemala (1987)	-	-	-	-	2.1	1.2
Peru (1992)	49.3	47.0	45.4 44.3		26.3	23.9
Bolivia (1989)	32.5	32.5	-	-	31.9	28.6

Source: Demographic and Health Surveys (DHS), conducted by national institutes of the different countries and coordinated by the Institute for Resource Development/Westinghouse/Macro Systems (1985-1991).

^a In descending order of female life expectancy at birth.

^b Most recent year for which information is available.

Table 4
TOTAL FERTILITY RATE BY LEVEL OF EDUCATION AND URBAN OR RURAL RESIDENCE,
IN SELECTED COUNTRIES OF THE AMERICAS ^a

Country and year ^c	Total	Level of education ^b					Residence		
		(1)	(2)	(3)	(4)	Diff. (4 - 1)	Urban	Rural	Difference
Colombia (1990)	2.9	4.9	3.6	2.4	1.6	3.3	2.5	3.8	1.3
Trinidad and Tobago (1987)	3.1	3.6	3.5	3.2	2.3	1.3	3.0	3.1	0.1
Dominican Republic (1991)	3.3	5.2	4.3	3.5	2.8	2.4	2.8	4.4	1.6
Peru (1992)	3.5	7.1	5.1	3.1	1.9	5.2	2.8	6.2	3.4
Brazil (north-east) (1991)	3.7	5.8	4.4	3.5	2.8	3.0	2.8	5.2	2.4
Mexico (1987)	4.0	6.1	5.7	3.7	2.5	3.6	3.0	5.9	2.9
Ecuador (1987)	4.3	6.4	5.2	3.5	2.3	4.1	3.5	5.5	2.0
El Salvador (1985) ^d	4.4	6.0	5.2	3.1	3.5	2.5	3.3	5.9	2.6
Paraguay (1990)	4.7	6.7	6.2	4.5	3.2	3.5	3.6	6.1	2.5
Bolivia (1989)	4.9	6.1	5.9	4.5	2.9	3.2	4.0	6.4	2.4
Guatemala (1987)	5.6	7.0	5.6	3.9	2.7	4.3	4.1	6.5	2.4

Source: Demographic and Health Surveys (DHS), conducted by national institutes of the different countries and coordinated by the Institute for Resource Development/Westinghouse/Macro Systems (1985-1991).

^a In descending order of total fertility rate.

^b These levels vary according to the structure of the educational system in each country. In most cases they are as follows: (1) no formal education; (2) incomplete elementary; (3) complete elementary; and (4) secondary.

^c Most recent year for which information is available.

^d Metropolitan area.

Table 5

**AVERAGE AGE AT BIRTH OF FIRST CHILD OF WOMEN AGED 25-49, BY LEVEL OF EDUCATION
IN SELECTED COUNTRIES OF THE AMERICAS^a**

Country and year ^c	Level of education ^b					Age diff.
	Total	(1)	(2)	(3)	(4)	
Colombia (1990)	22.1	19.6	--	20.7	23.3	3.7
Trinidad and Tobago (1987)	21.7	19.5	20.7	22.9	25.4	5.9
Dominican Republic (1991)	20.9	18.7	18.6	19.9	22.8	4.1
Peru (1992)	21.7	19.6	19.8	--	21.9	2.3
Brazil (north-east) (1991)	21.7	20.4	20.8	21.4	25.0	4.6
Mexico (1987)	21.0	18.9	19.8	21.6	24.1	5.2
Ecuador (1987)	21.0	19.6	20.3	22.0	25.4	5.8
Paraguay (1990)	21.7	19.6	20.3	21.7	24.5	4.9
Bolivia (1989)	21.0	20.7	20.4	20.6	23.1	2.4
Guatemala (1987)	19.9	19.2	19.5	21.2	23.6	4.4

Source: Demographic and Health Surveys (DHS), conducted by national institutes of the different countries, and coordinated by the Institute for Resource Development/Westinghouse/Macro Systems (1985-1991).

^a In descending order of total fertility rate.

^b These levels vary according to the educational structure in each country. In most cases they are as follows: (1) no formal education; (2) incomplete elementary; (3) complete elementary; and (4) secondary.

^c Most recent year for which information is available.

Table 6
WOMEN IN A LEGAL OR CONSENSUAL UNION WHO USE CONTRACEPTIVES
(Percentages)

Region and country	Total	Modern methods
NORTH AMERICA	74	69
Canada	73	69
United States	74	69
LATIN AMERICA AND THE CARIBBEAN	58	48
CENTRAL AMERICA	49	42
Belize	47	42
Costa Rica	70	58
El Salvador	47	44
Guatemala	23	19
Honduras	41	33
Mexico	53	45
Nicaragua ^a	27	23
Panama ^a	58	54
THE CARIBBEAN	53	49
Antigua and Barbuda	53	51
Bahamas	62	60
Barbados	55	53
Cuba	78	67
Dominica	50	48
Dominican Republic	56	52
Grenada ^a	31	27
Guadeloupe	-	-
Haiti	10	10
Jamaica	55	51
Martinique	51	-
Netherlands Antilles	-	-
Puerto Rico ^a	70	62
Saint Kitts and Nevis ^a	41	37
Saint Lucia	47	46
Saint Vincent and the Grenadines	58	55
Trinidad and Tobago	53	54

(concluded table 6)

SOUTH AMERICA	63	52
Argentina	-	-
Bolivia	30	12
Brazil	66	57
Chile	-	-
Colombia	66	55
Ecuador	53	41
Guyana	-	-
Paraguay	48	35
Peru	59	33
Suriname	-	-
Uruguay	-	-
Venezuela ^b	60	50

Source: Population Reference Bureau, *World Population Data Sheet 1993*, Washington, D.C., 1993. Data taken from the Demographic and Health Surveys in the *Monitoring Report* of the United Nations Population Division, and from country reports. They refer to some point in time between 1986 and 1992.

^a Refers to some time between 1980 and 1985.

^b Refers to 1977. Taken from E. Jamison, *World Population Profile: 1991*, Washington, D.C., United States Bureau of the Census, 1991.

Table 7

**WOMEN AGED 15 TO 19, AND 15 TO 49 IN A LEGAL OR CONSENSUAL UNION WHO USE SOME
METHOD OF CONTRACEPTION, BY PLACE OF RESIDENCE AND LEVEL OF EDUCATION
IN SELECTED COUNTRIES OF THE AMERICAS^a**

Country and year ^c	Women aged 15-19	Women aged 15-49						
		Total	Residence		Level of education ^b			
			Urban	Rural	1	2	3	4
Colombia (1990)	36.9	66.1	69.1	59.1	52.6	63.3	69.4	76.8
Trinidad and Tobago (1987)	42.4	52.7	53.9	51.7	40.9	50.6	54.5	67.6
Dominican Republic (1991)	17.4	56.4	60.1	50.1	41.5	53.0	57.2	59.2
Peru (1992)	29.1	59.0	66.1	41.1	34.9	51.3	65.6	73.2
Brazil (north-east) (1991)	41.3	59.2	65.6	49.1	44.3	55.0	62.6	67.8
Mexico (1987)	52.7	52.7	32.5	59.2	23.7	44.8	62.0	69.9
Ecuador	15.3	44.3	53.3	32.7	18.5	-- 41.0	--	56.6
El Salvador (1985) ^d	21.7	44.5	58.7	30.1	35.7	40.7	52.0	45.4
Paraguay (1990)	35.4	48.4	56.8	38.7	30.8	40.2	50.0	62.4
Bolivia (1989)	16.0	30.3	39.1	19.4	11.5	24.8	38.4	52.8
Guatemala (1987)	5.4	23.2	43.0	13.8	9.8	24.3	47.4	60.0

Source: Demographic and Health Surveys (DHS), conducted by national institutes of the different countries and coordinated by the Institute for Resource Development/Westinghouse/Macro Systems (1985-1991).

^a In descending order of total fertility rate.

^b These levels vary according to the structure of the educational system in each country and the classification used in each report.

^c Most recent year for which information is available.

^d Metropolitan area.

Table 8
PERCENTAGE DISTRIBUTION OF WOMEN BY PRACTICE OR NON-PRACTICE OF CONTRACEPTION,
AND BY METHOD USED, IN SELECTED COUNTRIES OF THE AMERICAS^a

Country and year	Not practised	Practised	Pill	IUD	Injections/ vaginal devices	Condom	Female sterilization	Male sterilization	Periodic abstinence	Withdrawal	Others	
Colombia	1990	33.9	66.1	14.1	12.4	3.9	2.9	20.9	0.5	6.1	4.8	0.5
	1986	35.2	64.8	16.4	11.0	4.7	1.7	18.4	0.4	5.7	5.7	0.9
Costa Rica ^b	1986	32.0	68.0	18.8	7.3	1.8	12.6	16.4	0.5	-	-	10.6
Trinidad and Tobago	1987	47.3	52.7	14.0	4.4	1.3	11.8	8.2	0.2	2.6	5.3	0.3
Dominican Republic	1991	43.6	56.4	9.8	1.8	0.3	1.2	38.5	-	2.0	2.2	0.5
	1986	50.0	50.0	8.8	3.0	0.3	1.4	32.9	0.1	1.4	1.5	0.6
Peru	1992	41.0	59.0	5.7	13.4	2.9	2.8	7.9	0.1	20.7	3.9	1.6
	1986	54.2	45.8	6.5	7.4	3.3	0.7	6.1	0.0	17.7	3.6	1.5
Brazil (north-east) Brazil (national)	1991	40.8	59.2	13.3	0.3	0.8	1.4	37.7	0.1	2.4	2.9	0.1
	1986	34.2	65.8	25.2	-	-	1.7	26.9	0.8	4.3	5.0	2.0
Mexico	1987	47.3	52.7	9.7	10.2	3.4	1.9	18.6	0.8	-	-	8.1
Ecuador	1987	55.7	44.3	8.5	9.8	1.9	0.6	15.0	-	6.1	7.0	0.3
El Salvador	1985	52.7	47.3	6.6	3.3	0.9	1.2	31.8	0.7	1.9	0.8	0.1
Paraguay	1990	51.6	48.4	13.6	5.7	6.0	2.6	7.4	-	5.3	2.9	5.0
Bolivia	1987	69.7	30.3	1.9	4.8	0.8	0.3	4.4	-	16.1	1.0	0.9
Honduras ^b	1984	65.1	34.9	12.7	3.8	-	0.9	12.1	0.2	-	-	5.2
Nicaragua ^b	1981	73.0	27.0	10.5	2.3	-	0.8	7.1	0.1	-	-	6.2
Guatemala	1987	76.8	23.2	3.9	1.8	0.9	1.2	10.4	0.9	2.8	1.2	0.1

Source: Demographic and Health Surveys (DHS), conducted by national institutes of the different countries and coordinated by the Institute for Resource Development/Westinghouse/Macro Systems (1985-1991).

^a In descending order of total fertility rate.

^b Taken from E. Jamison, *World Population Profile: 1991*, Washington, D.C., United States Bureau of the Census, 1991.

Table 9
FEMALE STERILIZATION BY AGE AT TIME OF OPERATION, AND AS A PERCENTAGE OF ALL CONTRACEPTIVE USERS^a
BY LEVEL OF EDUCATION, IN SELECTED COUNTRIES OF THE AMERICAS^b

Country and year ^c	Age at time of sterilization								Sterilized women as a percentage of all contraceptive users					
	15-25	25-29	30-34	35-39	40-49	Total	No. of women	Average age	Total	1	2	3	4	5
									Level of education					
Trinidad and Tobago (1987)	7.2	27.5	34.3	30.9		100.0	203	32.2	15.6	34.0	19.2	9.2	10.9	
Mexico (1987)	...	...	...	...	...	...	...	...	35.5	46.4	41.1	41.1	24.5	
Colombia (1990)	12.9	28.7	33.7	19.9	4.8	100.0	1082	30.7	31.6	51.3	37.6	23.1	29.6	
Paraguay (1990)	7.7	22.5	26.7	28.7	14.4	100.0	282	30.4	15.3	23.4	17.9	15.2	13.6	
Dominican Republic (1991)	25.0	35.3	28.6	9.2	1.9	100.0	1858	27.2	68.3	84.8	85.3	74.3	49.8	51.1
Brazil (north-east) (1991)	18.7	33.0	27.3	17.6	3.5	100.0	1516	29.7	63.7	72.0	63.4	63.3	54.4	60.0
Ecuador (1987)	10.1	30.0	38.0	18.6	3.3	100.0	474	31.2	33.9	...	...	...	...
El Salvador (1985)	25.3	33.9	21.5	11.6	3.8	100.0 ^d	1152	28.4	67.2	...	...	...	...
Guatemala (1987)	...	...	...	...	...	...	...	...	44.8	57.1	49.0	38.2	34.0	
Peru (1992)	3.1	21.9	30.8	32.6	11.7	100.0	135	33.0	13.4	11.2	15.2	12.0	14.0	
Bolivia (1989)	...	...	...	...	...	...	...	...	14.6	9.0	16.9	16.4	13.1	

Source: Demographic and Health Surveys (DHS), conducted by national institutes of the different countries and coordinated by the Institute for Resource Development/Westinghouse/Macro Systems (1985-1991).

^a Women in a legal or consensual union.

^b In descending order of total fertility rate.

^c Most recent year for which information is available.

^d Includes 3.9% of unknown age.

Table 10
**MATERNAL MORTALITY AND MATERNITY CARE COVERAGE IN SELECTED COUNTRIES
 OF THE AMERICAS, AROUND 1991**
(Percentages)

Country	Maternal mortality (per 100,000)	Prenatal care coverage ^a	Anti-tetanus vaccination	Professionally attended birth	Caesarean section
NORTH AMERICA					
United States	6.6	98.0	...	98.9	...
Canada	4.0	...	...	99.0	...
SOUTH AMERICA					
Argentina	52.0	...	...	95.4	...
Bolivia	332.0	66.3	20.1	39.5	7.9
Brazil	72.0	69.6	62.0	70.0	33.9
Chile	34.5	...	...	98.8	26.8
Colombia	107.0	78.2	54.5 ^b	80.3	15.2
Costa Rica	26.0	91.0	...	96.4	17.2
Cuba	36.0	97.9	54.8	99.8	20.3
Dominican Republic	84.0	90.0	87.0	85.0	...
Ecuador	150.0	46.4	18.8	22.9	...
El Salvador	140.0	24.1	...	31.1	19.2
Guatemala	106.0	34.3	13.7 ^b	28.0	18.0
Honduras	221.0	72.6	...	45.6	14.3
Mexico	58.1	70.9 ^b	...	95.4 ^b	...
Nicaragua	100.0	81.4	...	40.3	14.0
Panama	55.0	90.0	23.7	85.0	16.6
Paraguay	150.0	70.5	54.1	27.3	10.1
Peru	298.0	63.9	21.1	45.5	21.0
Uruguay	38.0	82.9	...	99.0	27.3
Venezuela	60.0	38.6	...	99.0	12.5
THE CARIBBEAN					
Anguilla	...	100.0	100.0	100.0	13.7
Bahamas	39.9	95.0	...	95.0	...
Barbados	...	...	100.0	98.0	...
British Virgin Islands	...	100.0	...	100.0	...
Dominica	...	100.0	...	96.1	...
Jamaica	114.4	66.0	...	73.0	5.2
Montserrat	...	100.0	100.0	99.8	9.5
Trinidad and Tobago	67.9	63.9	19.3	98.7	6.2
Haiti	340.0	...	...	...	...
Puerto Rico	16.0	...	...	...	...

Source: Country reports submitted to the Maternal and Child Health Program of the Pan American Health Organization.

^a In this document, the indicator of professional prenatal care is the number of women who used professional prenatal services on one or more occasions during pregnancy.

^b Information from the Demographic and Health Surveys (DHS).

Table 11
LATIN AMERICA AND THE CARIBBEAN. NUMBER OF HEALTHY YEARS OF LIFE LOST TO
PREMATURE DEATH AND DISABILITY, BY SEX AND CAUSE, 1990
(Hundreds of thousands)

	Female	Male		Female	Male
Communicable, maternal, and perinatal diseases	207.6	226.3	Noncommunicable diseases, malignant neoplasms (continued)		
Infectious and parasitic	120.6	137.7	Prostate	0.0	1.6
Tuberculosis	10.6	15.1	Bladder	0.2	0.7
STDs excluding HIV	21.6	2.4	Lymphoma	1.1	1.7
Syphilis	1.6	2.1	Leukemia	1.1	1.5
Chlamydia	1.5	0.3	Diabetes mellitus	5.8	4.3
Gonorrhea	0.1	0.1	Nutritional and endocrine	23.9	23.0
Pelvic inflammatory disease	18.3	0.0	Protein-energy malnutrition	4.6	5.2
Human immunodeficiency virus	10.2	34.1	Iodine deficiency	2.6	2.6
Diarrheal diseases	27.6	31.3	Vitamin A deficiency	6.9	7.2
Acute watery	15.9	17.5	Anemia	5.9	3.9
Persistent	7.1	8.7	Neuropsychiatric	35.7	46.8
Dysentery	4.6	5.1	Depressive disorders	11.8	5.7
Childhood cluster	7.5	8.6	Bipolar affective disorders	0.6	0.6
Pertussis	3.4	3.9	Psychoses	2.7	3.1
Polio	1.0	1.3	Epilepsy	3.5	4.7
Diphtheria	0.1	0.1	Alcohol dependence	2.0	14.1
Measles	1.9	1.9	Alzheimer's and other dementias	4.7	4.0
Tetanus	1.1	1.3	Parkinson's disease	0.6	0.6
Meningitis	3.3	3.8	Multiple sclerosis	0.5	0.4
Hepatitis	0.9	0.7	Drug dependence	2.1	6.3
Malaria	2.2	2.2	Posttraumatic stress disorder	2.8	1.7
Tropical cluster	13.4	16.3	Sense organ	3.3	3.1
Trypanosomiasis	0.0	0.0	Glaucoma	0.4	0.2
Chagas' disease	12.6	14.8	Cataract	2.6	2.5
Schistosomiasis	0.6	1.2	Cardiovascular	45.9	48.9
Leishmaniasis	0.1	0.3	Rheumatic	1.8	1.4
Lymphatic filariasis	0.0	0.0	Ischemic heart disease	11.3	16.0
Onchocerciasis	0.0	0.0	Cerebrovascular	14.0	13.2
Leprosy	0.3	0.3	Peri-, endo-, and myocarditis and cardiomyopathy	7.2	8.7
Trachoma	0.7	0.4	Respiratory	15.0	17.3
Intestinal helminths	11.9	12.0	Chronic obstructive pulmonary disease	2.9	4.1
Ascaris	6.7	6.8	Asthma	5.6	5.4
Trichuris	4.5	4.5	Digestive	12.8	20.5
Hookworm	0.7	0.7	Peptic ulcer disease	0.7	1.2
Respiratory infections	29.9	33.9	Cirrhosis	3.0	8.7
Lower respiratory infections	26.5	30.2	Genitourinary	6.6	7.7
Upper respiratory infections	1.3	1.3	Nephritis and nephrosis	4.5	4.2
Otitis media	2.2	2.4	Benign prostatic hypertrophy	0.0	2.2
Maternal	18.0	0.0	Musculoskeletal	13.0	8.8
Hemorrhage	2.5	0.0	Rheumatoid arthritis	4.6	2.5
Sepsis	4.1	0.0	Osteoarthritis	6.6	5.6
Eclampsia	1.6	0.0	Congenital abnormalities	14.9	16.2
Hypertension	0.7	0.0	Oral health	5.9	5.6
Obstructed labor	5.7	0.0	Dental caries	2.2	2.2
Abortion	2.2	0.0	Periodontal disease	2.9	2.8
Perinatal	39.1	54.8	Edentulism	0.8	0.7
Noncommunicable diseases	221.0	228.6	Injuries	37.2	117.2
Malignant neoplasms	27.8	25.3	Unintentional	31.1	79.4
Mouth and oropharynx	0.4	1.3	Motor vehicle	17.9	41.2
Esophagus	0.2	0.7	Poisoning	0.3	0.5
Stomach	1.4	2.4	Falls	2.7	7.2
Colon and rectum	1.3	1.2	Fires	1.9	2.7
Liver	0.2	0.3	Drowning	1.1	4.8
Pancreas	0.3	0.3	Occupational	0.5	2.8
Trachea, bronchus, and lung	0.7	2.2	Intentional	6.1	37.8
Melanoma	0.3	0.2	Self-inflicted	1.0	2.9
Breast	4.7	0.0	Homicide and violence	3.2	30.8
Cervix	4.3	0.0	War	1.9	4.1
Uterus	0.8	0.0			
Ovary	0.7	0.0			
			Total	456.9	572.1

Source: World Bank, *Investing in Health. World Development Report 1993*, Washington, D.C., 1993.

Table 12
**MORTALITY (UNADJUSTED) FROM BREAST AND CERVICAL CANCER IN THE 35-64 AGE GROUP
 IN SELECTED COUNTRIES OF THE AMERICAS^a**
(Rates per 100,000)

Country and year ^b	Breast cancer	Cervical cancer
Canada (1990)	62.9	4.6
United States (1990)	57.1	6.1
Costa Rica (1989)	31.1	21.5
Cuba (1990)	35.2	12.4
Uruguay (1990)	74.0	13.4
Chile (1989)	27.5	29.5
Jamaica (1985)	48.9	43.7
Argentina (1989)	52.0	10.4
Panama (1989)	20.3	24.8
Trinidad and Tobago (1990)	57.3	25.3
Venezuela (1989)	21.9	17.8
Mexico (1990)	16.7	31.8
Colombia (1990)	19.6	23.8
Dominican Republic (1985)	13.0	12.2
Brazil (1987)	24.7	12.0
Ecuador (1990)	12.7	15.0
El Salvador (1990)	6.4	14.1
Nicaragua (1990)	10.1	25.9
Guatemala (1988)	6.0	14.8
Peru (1988)	12.3	14.3

Source: Pan American Health Organization, Technical Information System, 1993.

^a Countries in descending order of female life expectancy at birth.

^b Most recent year for which information is available.

Table 13
**RATIOS OF MALE TO FEMALE MORTALITY FROM DIABETES MELLITUS AND Cerebrovascular
DISEASES, BASED ON UNADJUSTED RATES IN SELECTED COUNTRIES OF THE AMERICAS***

Country	Diabetes Mellitus	Cerebrovascular
	1990	1990
Canada	0.91	0.78
United States	0.78	0.68
Costa Rica	0.59	0.95
Cuba	0.55	1.00
Uruguay	0.81	0.82
Chile	0.98	0.95
Argentina	0.94	1.03
Venezuela	0.88	0.93
Mexico	0.77	0.85
Guatemala	0.80	0.81

Source: Pan American Health Organization, Technical Information System, 1993.

* Countries in descending order of female life expectancy at birth.

Table 14
RATIOS OF MALE TO FEMALE MORTALITY FROM ANAEMIAS AND NUTRITIONAL DEFICIENCIES
IN SELECTED COUNTRIES OF THE AMERICAS^a

Country	Anaemias			Nutritional deficiencies		
	1980	1985	1990	1980	1985	1990
Canada	0.80 ^b	0.84 ^b	0.79 ^b	0.67 ^b	0.67 ^b	0.50 ^b
United States	0.81 ^b	0.82 ^b	0.83 ^b	0.75 ^b	0.60 ^b	0.60 ^b
Costa Rica	2.23	1.09	0.77	1.29	1.77	1.26
Cuba	1.00 ^b	0.86 ^b	1.21	0.67	1.00	2.00
Uruguay	0.85 ^b	1.13	0.89 ^b	1.35	1.18	1.38
Chile	0.92 ^b	1.14	0.93	1.44	1.92	1.17
Jamaica	1.11	0.67 ^b	-	1.21	1.40	-
Panama	1.12	2.18	1.26	1.20	0.93 ^b	1.00 ^b
Argentina	1.06	0.94 ^b	0.94 ^b	1.15	1.08	1.07
Trinidad and Tobago	0.91 ^b	0.76 ^b	0.76 ^b	1.00	1.07	1.70
Bahamas	-	0.65	0.52	0.77	0.53	-
Venezuela	1.13	1.14	0.92 ^b	1.00 ^b	1.13	1.00 ^b
Mexico	0.91 ^b	0.93 ^b	0.91 ^b	0.91 ^b	0.94 ^b	1.05
Colombia	1.13	1.26	1.00 ^b	-	1.13	1.09
Paraguay	0.69 ^b	1.09	0.85 ^b	1.11	1.04	0.75 ^b
Dominican Republic	1.15	0.97 ^b	-	1.16	1.06	-
Brazil	1.05	1.06	1.14	1.23	1.24	1.24
Ecuador	0.83 ^b	1.02	0.84 ^b	1.00 ^b	0.85 ^b	0.90 ^b
El Salvador	0.88 ^b	1.15	1.27	1.20	1.12	1.28
Honduras	0.73 ^b	1.00	-	1.16	1.06	-
Guatemala	0.84 ^b	0.95 ^b	-	1.02	0.98 ^b	-
Peru	0.97 ^b	0.93 ^b	0.85 ^b	0.91 ^b	0.88 ^b	0.87 ^b

Source: Pan American Health Organization, Technical Information System, 1993.

^a Countries in descending order of female life expectancy at birth.

^b Female mortality rate equal to or greater than male mortality rate based on a total of 40 deaths.

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