The persistent inequality in Latin America and its effect on health

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This paper aims to show the main inequalities in health and mortality in Latin America. It also intends to describe those inequalities that have been persistently maintained to the point where goals established in international agreements have not been accomplished; to call attention to new challenges and, at the same time, to identify actions to be taken by countries regarding inequality reduction. Latin America and the Caribbean has been and continues to be the world's most unequal region. Despite some progress made in the fight against inequality, it has been noticed that within countries, gaps in health care and sexual and reproductive health indicators by geographic areas, social groups, ethnic origin and level of education, among other characteristics, continue to be very wide. Persistence of such inequality hinders advancement in achieving social goals in general, and health goals in particular, causing a vicious cycle in poverty conditions.

Introduction

This paper aims to show the main inequalities in health and mortality in Latin America. It also intends to describe those inequalities that have been persistently maintained to the point where goals established in international agreements have not been accomplished; to call attention to new challenges and, at the same time, to identify actions to be taken by countries regarding inequality reduction.

Latin America and the Caribbean has been and continues to be the world's most unequal region (ECLAC 2005, 2008 and 2010a, ECLAC/CELADE 2010a). Health is a social right whose legal basis is expressed in a number of obligations States have to fulfill in accordance with the international instruments they have ratified, including the Millennium Development Goals (MDGs). In Latin America and the Caribbean, failure to enforce the right to health is often ultimately due to inequities that exist in this sphere and that are not only unnecessary and unfair, but avoidable. On the whole, when it comes to meeting this basic need there is perhaps a larger gap between legal equality and social inequality than in other instances, i.e., between the formal possession of rights and the ineffectiveness of public policies in enforcing them (ECLAC, 2010b).

Lack of access to sexual and reproductive health is an area that clearly reflects inequality in society. This is expressed by differences in access to pre- and postnatal care, knowledge and use of modern contraceptives and differences between women in different socio-economic strata regarding unmet family planning needs (ECLAC, 2010b). Although some advances have been made, the gaps in health and sexual and reproductive health indicators remain very large among different countries, geographic areas, social strata, ethnic groups and education levels, among other characteristics. The persistence of this inequality limits the progress that can be made on social goals in general and health goals in particular, thus compounding existing conditions of poverty (ECLAC/CELADE, 2010a). In Latin America and the Caribbean, the great concern is that even though living conditions have improved across time, territorial gaps are still present, without showing signs of a decrease and with possibility of increasing in the future. Persistent disparities among children is specially worrisome, given that they affect the rights and wellbeing during childhood and can become a lifelong barrier, as well as reproducing their disadvantaged situation in future generations (ECLAC/UNICEF, 2010).

Brief panorama and drivers

Infant and child mortality

Infant mortality is a strong indicator of social development and of the availability, use and accessibility of health systems, as well as of their nutritional status. It shows to what extent the most fundamental human right, that is, the right to life and the concomitant right to health (Jiménez et al., 2008), is being exercised in a society. In 1990-2009, the region of Latin America and the Caribbean has made notable progress in relation to children's health. In that connection, there has been a substantial reduction in mortality rates. In 2009, the region recorded the lowest infant mortality rate in the developing world and it achieved that reduction more quickly than other regions. It therefore ranks relatively high from a global perspective (ECLAC, 2010b).

This decrease has occurred in all countries, even those with relatively high mortality (e.g. Bolivia, Haiti or Peru). Between 1950-1955 and 2005-2010, the region's infant mortality rate fell by 84%, from 138 deaths per 1,000 live births to 22 per 1,000 (ECLAC/CELADE, 2010a). To a greater or lesser extent, all countries have seen a significant decrease (see Table I); this reduction in the risk of dying in infancy came about despite the limitations imposed by the prevailing inequity and poverty in the region's countries and the numerous economic and political crises that many of them have undergone in recent decades. This change is most likely due to the combination of several simultaneous processes, including advances in maternal-child health programmes based primarily on high-impact, low-cost primary care (such as large-scale vaccinations, oral rehydration therapy and child checkups); ongoing socio-economic and demographic transformations, such as expanded coverage for basic services, above all potable water and sanitation; increased education levels in the population and reduced fertility.

Table I

LATIN AMERICA AND THE CARIBBEAN: CLASSIFICATION OF COUNTRIES BY LEVEL OF INFANT MORTALITY IN 1970-1975 AND BY THE PERCENTAGE OF REDUCTION ACHIEVED BY 2005-2010

Infant mortality level in 1970-1975	**Percentage of reduction in infant mortality between 1970-1975 and 2005-2010**			
	40% o menos	Entre 40% y 60%	Entre 60% y 80%	80% o más
100 or higher			Bolivia (Plurinat. State of), El Salvador, Haiti, Honduras, Guatemala	Peru
Between 50 and 100	Grenada, Paraguay	Guyana	Belize, Brazil, Colombia, Ecuador, Mexico, Nicaragua, Dominican Rep , St. Vicent and the Granadines	Chile, Costa Rica
Less than 50	Aruba	Antillas Neerlandesas, Panamá, Suriname	Argentina, Bahamas, Barbados, French Guayana, US Virgin Islands, Jamaica, Santa Lucia, Trinidad and Tobago, Uruguay, Venezuela (Bolivarian Rep. of)	Cuba, Guadalupe, Martinique

Source: ECLAC/CELADE-Population Division of ECLAC, "Population projection", Demographic Observatory, No. 7 (LC/G.2414-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), April 2009, and United Nations, World Population Prospects. 2008 Revision, New York, 2008. *2008 Revision, New York, 2008.*

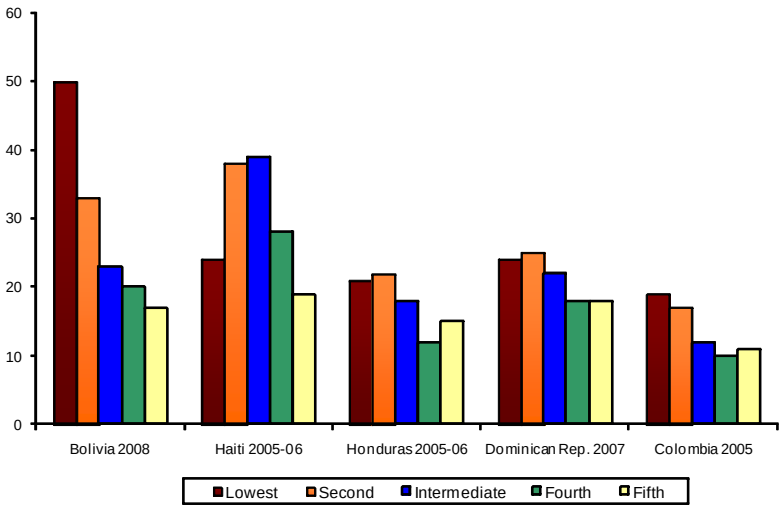
Considering the components of infant mortality, early neonatal deaths —that is, those that occur during the first week of life—, and especially those in the first 24 hours are generally caused by prematurity and birth asphyxia (Lawn, Cousens and Zupan, 2005).

Despite the limited information available in the region, some countries have considerable timeseries data. In 1950, the percentage of neonatal deaths (deaths occurring in the first 28 days) compared to deaths of children under one year old was between 30% and 40%, and the infant mortality rate was between 120 and 140 deaths per 1,000 live births. In 2007, Chile and Costa Rica reported rates of 8 and 10 deaths per 1,000, respectively, and the proportion of neonatal deaths reached nearly 80%. In Guatemala, in contrast, the percentage remained at about 40% throughout the period, despite the drop in infant mortality to 25 deaths per 1,000 live births (ECLAC/CELADE, 2010a).

Figure I displays differentials in neonatal deaths according to wealth quintiles. In most countries where data are available, it can be seen that children from disadvantaged backgrounds are disproportionately affected. In Bolivia, an extreme example, children in the poorest quintile are almost three times more likely to die within the first 28 days of of life. In Haiti, Honduras, Dominican Republic and Colombia, the differences are less marked, ranging from 1.2 times to 1.7 times, but always unfavourable to children in the lowest quintile, compared to the wealthiest one (Macro International Inc., 2011).

Figure I

LATIN AMERICA (SELECTED COUNTRIES): NEONATAL MORTALITY RATE BY WEALTH QUINTILE, LATEST AVAILABLE YEAR

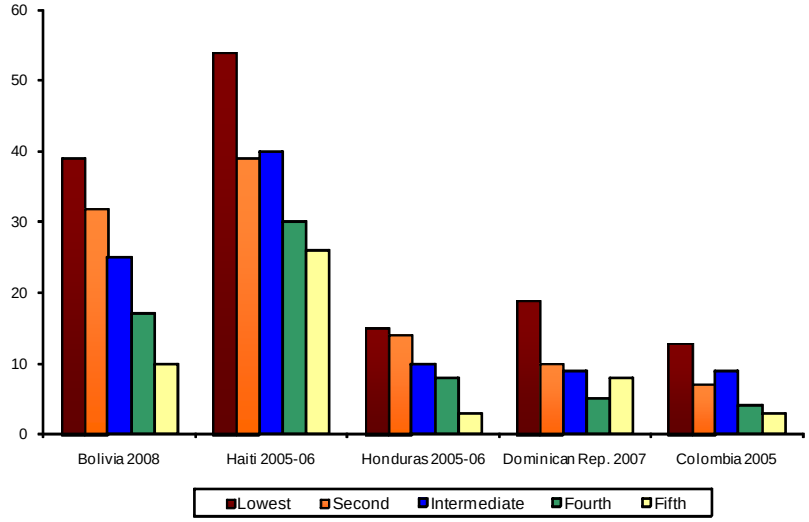


Source: Macro International Inc. (2011), "Demographic and Health Surveys, MEASURE DHS STATcompiler" [online] http://www.measuredhs.com [date of reference: 1 February 2011].

Figure II displays differentials in postneonatal deaths according to wealth quintiles. Disparities found are much wider than in the case of neonatal deaths. From available data, the deepest gap is shown in Honduras, where children in the poorest quintile are as much as five times more likely to die between their second and twelfth month than children in the richest quintile. In Bolivia, Haiti, Dominican Republic and Colombia, the relative risks for poor children are quite striking as well, ranging from 2 times in Haiti to 4.3 times in Colombia (Macro International Inc., 2011).

Figure II

LATIN AMERICA (SELECTED COUNTRIES): POSTNEONATAL MORTALITY RATE BY WEALTH QUINTILE, LATEST AVAILABLE YEAR



Source: Macro International Inc. (2011), "Demographic and Health Surveys, MEASURE DHS STATcompiler" [online] http://www.measuredhs.com [date of reference: 1 February 2011].

The analysis of child mortality makes it possible to look at progress in child health from another perspective, taking into account the risks that exist after the first birthday, when living conditions and other exogenous factors have greater weight. In 1990, about 55 boys and girls under the age of 5 years died for every 1,000 live births, but by 2009 that figure had fallen to 27 per 1,000. This means that mortality in this age group dropped by slightly more than that of children under 1 year of age, 51% and 42%, respectively (ECLAC/CELADE, 2010a). As with infant mortality, although there is an evident convergence in rates, the differences from one country to another in the region are still marked. A Honduran child, for example, was five times more likely to die before his fifth birthday than a Cuban child in 2009. In 2009, as in 1990, Haiti had the highest excess mortality rate; a Haitian child was 12 times more likely to die before the age of five than a child in Cuba or Martinique. The Plurinational State of Bolivia and Guayana have excess mortality ratios are around 7 (ECLAC/CELADE, 2010a).

As noted, the child mortality rate has fallen in all countries of the region, though the pace has varied: in the 1990-2009 period, 16 of 35 countries for which pertinent information is available reduced this indicator by more than 50%. Even so, current projections suggest that only five countries will achieve the MDG target for 2015: Nicaragua (which reached it in 2009), Cuba, Ecuador, Grenada and Peru (ECLAC/CELADE, 2010a). Although the figures analysed show progress in the region, the mortality goals will be difficult to achieve without reducing inequities within countries.

The Social Panorama of Latin America 2005 (ECLAC, 2005), in its chapter on demographic and social inequalities, shows that infant mortality gaps may have decreased somewhat between socio-economic sectors, but the same cannot be said of territorial gaps. Furthermore, it points out that the indigenous populations are furthest behind when

it comes to reducing mortality. Place of residence is one of the most reliable indicators of health inequalities; however, it often gets overlooked as analyses focus on larger geographical areas. In Latin America, urban infant mortality in the 1970-2000 period fell from 87 to 27 deaths of children younger than one year old for every 1,000 live births, and the rural counterpart fell from 101 to 38. In 1970, a boy or girl living in a rural area had 1.2 times more risk of dying than one in urban areas. Between 1990 and 2010, that gap has increased to 1.4 times. The most significant urban-rural differences can be seen in Panama and Peru, where the risk of dying before the first year of life has been nearly three times greater in the rural sector than the urban one. This difference lasts at least to the age of five years (ECLAC/CELADE, 2010a). Eight countries have reduced the urban-rural gap, notably the Dominican Republic, where it was cut by half between 1990 and 2005, while in Colombia, El Salvador, Guatemala and Haiti the infant mortality rate gap between urban and rural areas grew (ECLAC, 2010b).

Infant mortality among children born to women with less than three years of schooling in 1970 amounted to 102 deaths per 1,000 live births, while that of children whose mothers had seven or more years of education was 47 per 1,000. By the year 2000, these figures had fallen to 48 and 22 deaths per 1,000, respectively. What this means is that, since 1970, mortality among children under one year old has been twice as high when their mothers received less than three years of formal education as that of children whose mothers had seven years of education with no change over time. As a matter of fact, mortality differences among children of women aged 25–39 years were most commonly associated with level of education in the study conducted for the Social Panorama of Latin America 2005, where the education variable had a significant and independent effect on the mortality rate in the 10 countries examined (ECLAC, 2005). Within the region, there are countries where this excess mortality of children of mothers with a lower level of education is five times greater than mortality among children whose mothers were better educated. This is true even in countries with low mortality, such as Argentina (ECLAC/CELADE, 2010a).

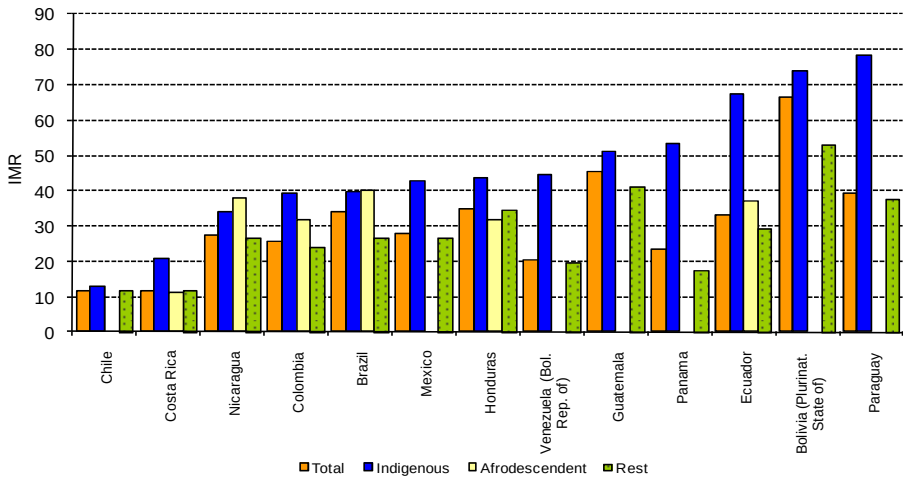
The regional situation in terms of the intensity of mortality among indigenous boys and girls shows a pattern of disadvantage for indigenous children, generally experiencing higher infant mortality rates. Within each country in the region, the levels of infant mortality show disparities according to ethnic group and to the detriment of indigenous newborns (see Figure III). It is worth pointing out that a relatively low national rate of infant mortality does not always apply to indigenous children, as is the case in Panama. The highest risks are in fact found in that country, along with the Bolivarian Republic of Venezuela, Ecuador and Paraguay. A Panamanian indigenous child is three times more likely to die before his first birthday than a non-indigenous child, and the risk is higher among children under five. In the other three countries mentioned, the risk of mortality is twice as high for indigenous children, both in infancy and in childhood (ECLAC/CELADE, 2010a). It can also be seen, however, that the infant mortality rate for indigenous and Afro-descendent children varies greatly from country to country, which shows that the national context is fundamental. For example, the living conditions of the Quechua and Aymara peoples are very different in Chile and the Plurinational State of Bolivia. In the latter, the risk of a Quechua child dying before reaching age 1 is

five times higher than in Chile, and for Aymara children the risk is four times greater (ECLAC, 2010b).

Figure III

LATIN AMERICA: INFANT MORTALITY AMONG INDIGENOUS, AFRO-DESCENDENT AND REMAINING MEMBERS OF THE POPULATION, BY COUNTRY, 2000 CENSUSES

(Number of deaths among children under one year old per 1,000 live births)



Source: A. M. Oyarce, "Salud materno- infantil de pueblos indígenas y afrodescendientes de América Latina: una relectura desde el enfoque de derechos", Project documents, CELADE-Population Division of ECLAC/Pan American Health Organization (PAHO), 2010.

A useful way to look at inequalities, particularly when focusing on differentials associated to ethnicity is by combining geographical and socio-demographic data. As a case in point, and as a proxy for infant mortality, Map I displays, by municipality, the proportion of deceased children of women aged 25-39. This highlights inequalities between smaller administrative divisions within countries. Inequalities are concentrated in specific areas of the region; the well-defined territories coloured with red or orange in North-West and Central Mexico; and, to a lesser extent, on both sides of the Guatemalan-Mexican border; North Nicaragua and upper Panama, raise focalized flags that are bound to be linked to other socioeconomic and demographic disadvantages and that can be object of culturally relevant policies and programmes.

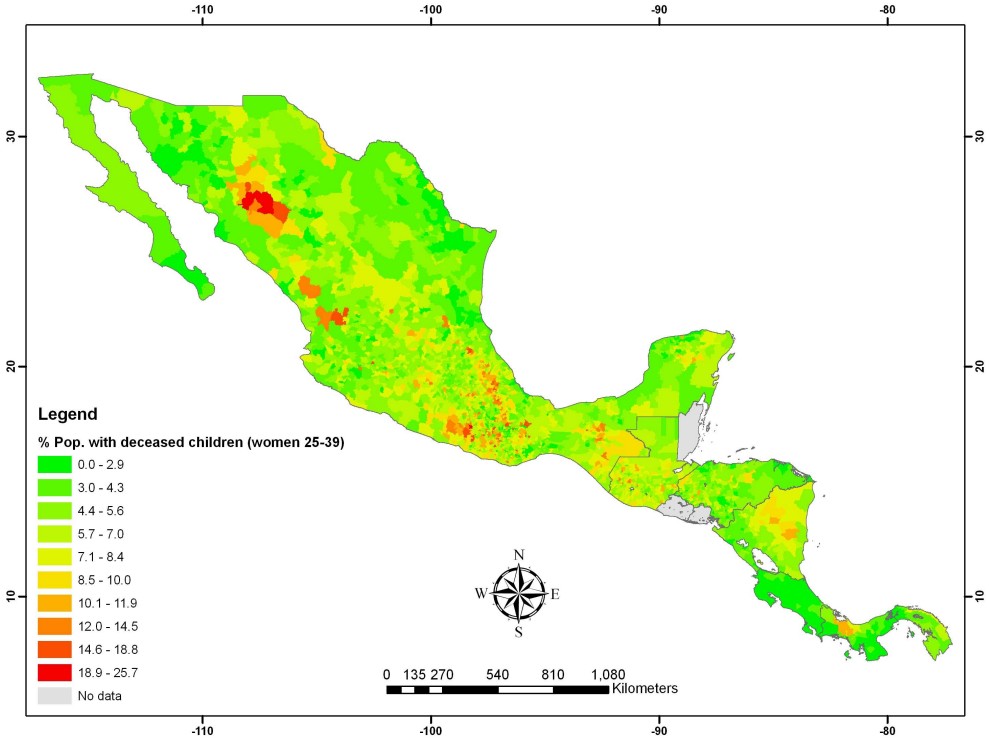
The territories with the highest infant mortality rates (the proxy being used here is deaths among children born to women aged 25 to 39 years) are also those with less access to drinking water (see Map II) and basic sanitation (see Map III) as well as higher child poverty rates, lower literacy rates among women, lower public expenditure on health, chronic vulnerability, local economic crises and internal conflicts, which can affect either urban or rural areas, or several countries. These factors are the main causes of the high rates of infant mortality in the region, and explain the variability of those rates within the region and within countries and highlight the fact that the high rates of infant mortality in the region are attributable to the shortcomings of or the low investment in social and

environmental programmes and policies which, in addition to the low public expenditure on health, exacerbate existing social inequalities (ECLAC, 2010b).

Map I

MESOAMERICA: DEATHS OF CHILDREN BORN TO WOMEN AGED 25-39 YEARS, CIRCA 2000

(Percentages)

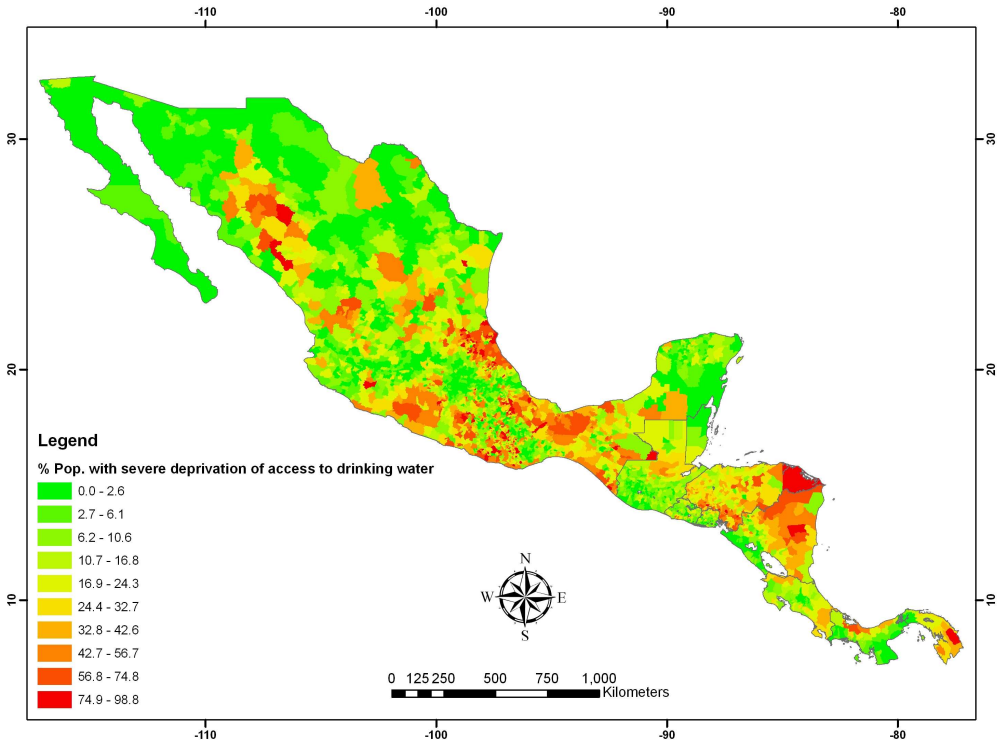


Source: Economic Commission for Latin America and the Caribbean (ECLAC), calculations by the Latin American and Caribbean Demographic Centre (CELADE) – Population Division of ECLAC, on the basis of data from population and housing censuses.

Map II

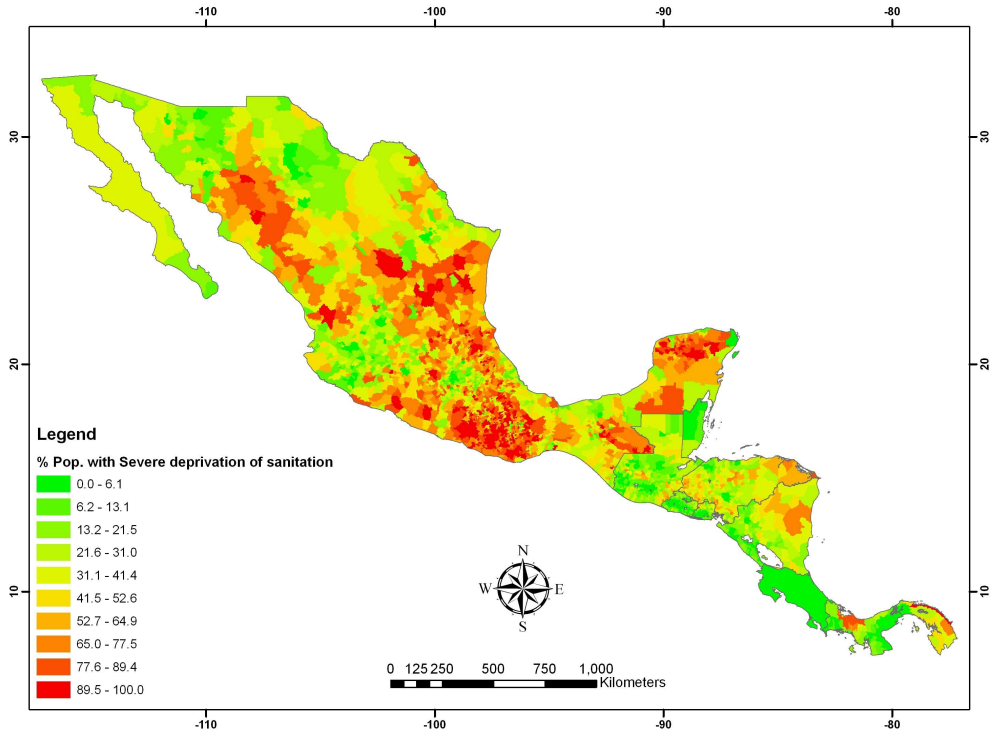
MESOAMERICA: POPULATION UNDER 18 YEARS OF AGE WITH SEVERE DEPRIVATION FROM ACCESS TO DRINKING WATER, CIRCA 2000

(Percentage)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), calculations by the Latin American and Caribbean Demographic Centre (CELADE) – Population Division of ECLAC, on the basis of data from population and housing censuses.

Map III
MESOAMERICA: POPULATION UNDER 18 YEARS OF AGE WITH SEVERE DEPRIVATION FROM SANITATION, CIRCA 2000
(Percentage)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), calculations by the Latin American and Caribbean Demographic Centre (CELADE) – Population Division of ECLAC, on the basis of data from population and housing censuses.

Mortality among the youth

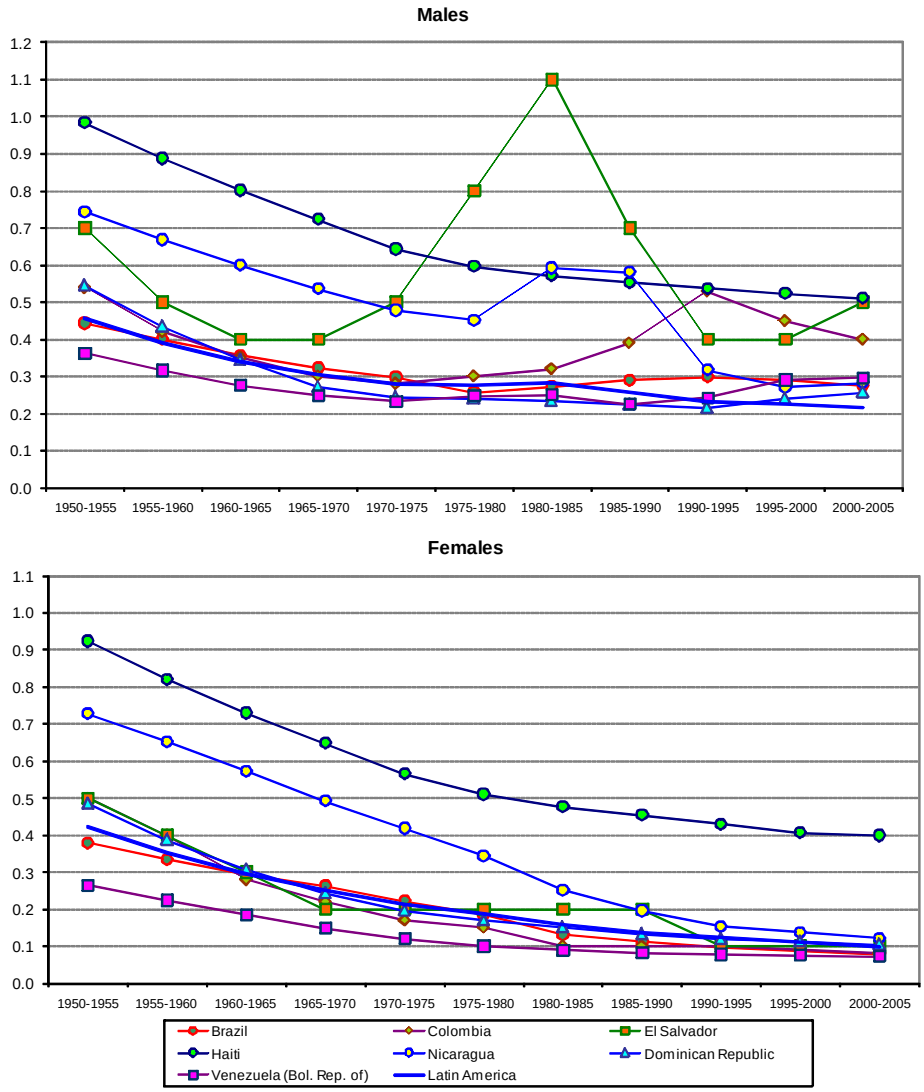
At young ages, there is less impact from deaths due to infectious, parasitic or degenerative diseases, and therefore deaths due to external causes (accidents, suicides and homicides) predominate. In this aspect, the region has lost ground, as mortality among young people caused by accidents and violence has actually increased: in nearly half of Latin American countries, rates of mortality due to accidents and suicides are higher, and between 1985 and 2000-2002, the homicide-related mortality rate of young people aged 15 to 24 years rose in nearly every Latin American and Caribbean country (WHO, 2006). Homicide is the first cause of death among young men in many countries of the region (ECLAC, 2008)

Two indicators that make it possible to compare the level of mortality among youths from one country to another and as it evolves over time are life expectancy between 15 and 30 years of age (e(15-30)) and the potential years of life lost (YLL) with respect to life expectancy. YLL provide important information on changes in young people's health and socio-economic conditions, primarily because, once the epidemiological transition has

advanced, their mortality is primarily due to external causes. Figure III shows the Latin American average and that of selected countries where noteworthy situations were identified for the period in 1950 to 2005. Around 1950, Latin American men between 15 and 29 years of age lost an average of 0.5 years of life expectancy as a result of different causes of death. The corresponding figure for women was 0.4 years. The country with the most extreme fluctuations is El Salvador, where by 1960 the YLL for men in this age group had fallen, but reversed later on and reached a maximum of 1.1 years in the 1980-1985 period, mainly as a result of the internal conflict in that country. After a new descent, the figure rose again to 0.5 years in the 2000-2005 period, bringing El Salvador together with Haiti as the two countries with the highest losses. In Nicaragua, though to a lesser extent, the impact of the armed conflict in the 1980s was felt, as it has been in Colombia from that time forward. In several of the countries selected, men's YLL have been on the rise in recent years, possibly due to various factors related to internal conflicts such as the social problem of maras or gangs (El Salvador), or changes in lifestyle reflected, for example, in traffic accidents (ECLAC/CELADE, 2010a). At the end of the studied period (2000-2005), all selected countries show YLL above the regional average.

Figure III

LATIN AMERICA AND SELECTED COUNTRIES: POTENTIAL YEARS OF LIFE LOST (YLL) FOR PERSONS AGED 15 TO 29 YEARS, BY SEX, 1950-2005



Source: ECLAC/CELADE-Population Division of ECLAC, population estimates and projections, 2008 revision.

In the case of women, YLL trends are less variable, although in El Salvador and Nicaragua there was deterioration during periods of internal conflict. An analysis of the gender differential in YLL, measured by the coefficient between male and female YLLs, reveals that the gap has widened. The gender breakdown of deaths highlights the weight of mortality among young men (ECLAC/CELADE, 2010a). In the beginning of the period under study, men lost 30% more years of life than women; now the figure is 100%. Although this widening gender gap throughout the period is noteworthy, even more significant is the increase seen in recent five-year periods. For example, in Colombia and El Salvador, young men are losing five times more years of life than

women, and in the Bolivarian Republic of Venezuela and Brazil, the differences are four and 3.5 times, respectively (ECLAC/CELADE, 2010a).

If mortality rates due to external causes are analysed more closely, we find that Venezuela (Bol. Rep. of) scores the highest total rate for males (271 per 100 000) whereas El Salvador registers the highest total rate for females (34 per 100 000) (ECLAC, 2008). Focusing on homicides, El Salvador displays the peak for both males and females – 176 and 34 per 100 000, respectively –, while figures on suicides show that, for males, the highest rate is registered in Uruguay (23 per 100 000), and for females, in Ecuador (9 per 100 000) (ECLAC, 2008). In general the sex differentials are striking, which confirms a major gender gap to the detriment of the male population, although gender violence against women —more difficult to detect— is also apparent. This situation underlines the fact that the important achievements in reducing infant mortality are "lost" when children reach young adulthood because of increased mortality due to external causes, especially violence. This has particular relevance in the Latinamerican and Caribbean region, if we bear in mind that the correlation between high inequality and violence has been widely documented (ECLAC/OIJ, 2008)

Maternal mortality and health

Maternal mortality and the morbidity associated with its determining factors are serious public health problems that reveal some of the deepest inequalities in living conditions (ECLAC, 2010b). Maternal mortality remains unacceptably high in the majority of countries in the region, which means that target 5A of the fifth MDG, oriented towards reducing maternal deaths, is the one on which the least progress has been made (ECLAC/CELADE and UNFPA, 2009). Furthermore, evaluation of the progress on this objective is difficult because the indicator used for that purpose —the maternal mortality rate (MMR) — is very imprecise because of the uncertainty of the underlying data, since vital statistics have limited coverage and data quality, particularly regarding maternal deaths. However, the absolute magnitude of the figures is something that cannot be overlooked: in the region, the projected number of maternal deaths in 2005 could be about 9,272 (ECLAC, 2010b), which is cause for concern and reveals the pressing need to take additional measures.

Maternal mortality is closely linked to social conditions. Women from groups with low socio-economic status are most at risk, in particular because of limited access to services, the shortcomings of sexual and reproductive health policies and the lack of guaranteed availability of comprehensive and high-quality health services for women (Ortiz, 2002). There has also been a shift in the profile of maternal mortality in the Caribbean, with a greater concentration among adolescent girls (ECLAC/UNFPA, 2009).

The maternal mortality ratios are very different for the countries in the region and the trends are divergent: in some countries there has been an improvement, while in others there has been a marked deterioration. In Argentina, Chile, Costa Rica, Cuba, Puerto Rico and Uruguay, there are fewer than 50 deaths per 100,000 live births. In the other

countries in the region, the ratios vary from 56 deaths per 100,000 live births in Mexico to the extreme of 630 deaths per 100,000 live births in Haiti (ECLAC, 2010b). The situation in countries like Ecuador, Guatemala, Guyana, Haiti, Honduras, Peru and the Plurinational State of Bolivia is disturbing; in light of the MMR of more than 200 deaths per 100,000 live births. This scenario poses a challenge that draws attention to the need to take real action.

From available evidence, three categories of countries can be distinguished: countries with a downward trend, countries where there has been little change to the ratio and countries with an upward trend (see Table II). Only the Bolivarian Republic of Venezuela, Colombia, Mexico, Nicaragua and Paraguay presented a downward trend, but it remains difficult to forecast from these figures whether they will meet the target. The maternal mortality ratio is steady in Brazil, Chile, Costa Rica and Cuba, to some extent because of the efforts made to improve the coverage and quality of records by investigating the deaths of women of childbearing age. Most probably these countries will not achieve the target because their ratios are still high and show no signs of an impending significant drop. The maternal mortality ratio trended upward in Argentina and the Dominican Republic, which could also be a result of better data (ECLAC, 2010b).

Table II

LATIN AMERICA (SELECTED COUNTRIES): TRENDS IN MATERNAL MORTALITY RATIOS (INDICATOR 5.1 OF THE MILLENNIUM DEVELOPMENT GOALS), 2001-2008

(Per 100,000 live births)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008
Downward trend									
Paraguay	164	159.7	182.1	174.1	153.5	128.5	121.4	127.3	--
Colombia	104.9	98.6	84.4	77.8	78.7	78.7	72.9	70	75.6
Mexico	72.6	70.8	59.9	62.6	60.9	61.8	58.6	55.6	57.2
Nicaragua	--	87	95.6	82.8	87.3	86.5	90.4	76.5	--
Venezuela (Bolivarian Republic of)	--	60.1	67.2	68	57.8	--	59.9	--	56.8
Little variation									
Brazil	73.3	70.9	75.9	73	76.1	74.7	77.2	--	--
Cuba	40.4	33.9	41.1	39.5	38.5	51.4	49.4	31.1	46.5
Costa Rica	35.8	31.4	38	32.9	30.5	36.3	39.3	19.1	--
Chile	18.7	--	16.7	13.4	17.3	19.8	18.1	18.2	--
Upward trend									
Dominican Republic	--	69	82	63	75.3	91.7	80	72.8	86.3
Argentina	35	43.5	46.1	43.6	40.1	39.2	47.8	43.7	--

Source: Pan American Health Organization (PAHO). Basic Indicator Database, February 2010.

Poor maternal health has consequences other than raising mortality, including, according to the World Health Organization, the high incidence of morbidity and disability arising from the inadequate monitoring of, and provision of care during, pregnancies and deliveries, including infertility, sexually transmitted diseases or, at other stages of the life cycle, genital prolapse and urinary incontinence. The inequalities and difficulties

associated with access to and use of reproductive health services are marked, especially for rural and indigenous women among whom the maternal mortality rate is very high. This is related to the lack of emergency, and especially obstetric, services and care, or to their high cost. Health centres can be located far from where people live and there is little information on the services available (ECLAC, 2010b).

One of the factors most closely and universally related to declines in maternal morbidity and mortality is the presence of skilled health personnel before and during delivery, which helps prevent complications. Regional coverage of prenatal care (measured in terms of the proportion of pregnant women who had at least four prenatal visits), suggests that there is still a significant shortfall in Latin America and the Caribbean when it comes to access to reproductive health. Indeed, among the countries for which relevant information is available, only one exceeds 90% coverage (the Dominican Republic), and two others (Brazil and Peru) approach that level (ECLAC/CELADE, 2010a). The proportion of births attended by skilled health personnel is lower for women who live in more remote rural areas. The contrast is particularly marked in Haiti, where approximately four times as many births are attended by skilled health personnel in urban areas as in rural areas (UNFPA/CST, 2004). Socio-economic status also influences the type of care received, as shown by demographic and health surveys. The Plurinational State of Bolivia is an extreme example of this: the percentage of births attended by skilled health personnel among women in the top income quintile is more than double that among women in the bottom quintile (98% compared with 45%), and women with limited resources are mainly attended to by family members, relatives or other persons during delivery. In Colombia, care is usually provided by doctors, in Haiti, by midwives, in Honduras, by a combination of doctors and midwives, and in Peru, by doctors and other health professionals.

When the level of schooling of young mothers is taken into account, a gap in terms of information and access to reproductive health services can be seen between the different groups. The disadvantages affecting young women with less schooling are clear and their future work prospects are affected not only by their inadequate schooling, but also by the fact that they are more likely to be mothers (ECLAC/CELADE, 2010b). This reflects unequal access to sexual and reproductive health services, which is due to several structural causes: young women's educational level, where they live (usually in a rural area), lack of culturally appropriate health care, and lack of policies and programmes, which hinder their access to family planning services (ECLAC/UNFPA, 2009).

In recent years, some achievements have also been made in narrowing social gaps. For example, there are fewer disparities among social groups in terms of prenatal care by health professionals, although there are still inequities. For example, in the Plurinational State of Bolivia, it has been reported that in 1998, for every 10 women with a secondary or higher education receiving prenatal care, only four with no formal education received it. In 2003 that gap narrowed, but it was still significant, with a ratio of 10 to seven (Macro International Inc., 2009). However, maternal mortality is still much higher than could be expected on the basis of average mortality and fertility rates. It has shown no signs of declining steadily, and its levels are much higher among poor women, those with less education, and indigenous women (ECLAC/CELADE, 2010a).

Challenges, future trends and consequences

The region faces important challenges in meeting current objectives and goals. For example, the fourth MDG, reducing child mortality, cannot be attained by 2015 if current trends continue. Eradicating extreme poverty and hunger has an immediate and direct impact on the reduction of infant and child mortality by improving children's nutritional status. Child undernutrition can cause death and can also lead to impaired cognitive development during childhood that affects their future, decreasing their capacity to compete and perpetuating their marginalization in society. Geographical, cultural, ethnic and individual factors interact closely with socio-economic factors (ECLAC, 2010b).

Two very important other challenges are maternal mortality (which is the most long-standing) and adolescent fertility (an emerging challenge), which remain high in the region. Reducing maternal mortality is a condition for progressing towards fulfillment of MDG 5 and is a priority challenge. The gap in actual progress regarding maternal mortality will be hard to close in the next years and cannot be resolved with the kind of public policy that is currently being implemented. Meeting a certain threshold for the attendance of births alone does not guarantee a reduction in maternal mortality. The effectiveness and quality of health-care services during pregnancy, as well as other socio-economic, cultural and environmental factors also come into play. The high rates of maternal mortality due to preventable causes in the region demand immediate action to guarantee three pillars: reproductive health services, skilled professional care during delivery and emergency obstetric care, and addressing the issue of unsafe abortions (ECLAC, 2010b).

Tackling adolescent pregnancy is essential through improving sexual and reproductive health in Latin America and the Caribbean and one of the main challenges for meeting the target of universal access to contraception. The main reason for the high adolescent fertility is lack of information and access to reproductive health services, while a related factor deals with the lack of opportunities in the lives of poor youths and teenagers that would offer an alternative to early fertility (ECLAC, 2010b).

Even though significant achievements have been made in recognizing reproductive rights and the use of contraceptives has become more widespread, very few countries will manage to reduce unsatisfied demand for family planning by half in 2014, as the Latin American and Caribbean Regional Plan of Action on Population and Development proposed in 1994 (ECLAC, 2010b). Account needs to be taken of the major disparities that exist in access to reproductive health care among different population groups, and the consequences of these imbalances for the intergenerational reproduction of poverty. Disparities in coverage of intervention are most acute in countries with the lowest intervention coverage overall (Acuin, et al. 2011). Furthermore, there are still drastic disparities in progress and deficiencies with regard to HIV/AIDS prevention.

Achievements obtained so far have given way to new challenges. A look at mortality in different age groups and through time, allows us to see that the epidemiological evolution of Latin American and Caribbean countries is characterized by the coexistence of

illnesses belonging to the group of infectious and parasitic causes as well as the chronically degenerative ones. This profile is also influenced by the pressure of external causes, which in some population subgroups, such as young men, has a relevant effect (ECLAC/CELADE, 2010a). Analysis of regional epidemiological trends, which are closely tied to the stage of the countries' demographic transition, leads to the conclusion that the epidemiological profile of Latin America and the Caribbean is characterized by overlapping stages. Consequently, countries face the twofold challenge of continuing to reduce mortality caused by infectious and parasitic diseases while contending with rising mortality due to non-communicable causes.

The ageing of the population, will further change countries' mortality profiles (ECLAC/CELADE, 2010a). The demographic transition is occurring at a much more rapid pace and health systems still have numerous deficiencies when it comes to meeting the needs of the young population (ECLAC/CELADE, 2010a). In turn, the rapid ageing of the population has led to a notable increase in the demand for health care by older persons (ECLAC/CELADE, 2008). In short, although in some countries there is still a critical need to invest more resources in public health and effective services in order to reduce the high incidence of communicable and maternal and childhood diseases, the growing importance of non-communicable diseases shows that it is also necessary to broaden the spectrum of actions and areas of intervention (ECLAC/CELADE, 2010a).

This complex epidemiological picture is accompanied by the socio-economic inequality that characterizes the region, which has an adverse effect on the health of the most vulnerable groups, given the disparities in coverage, access and quality of the relevant services. Poor health and premature death are the result of inequality in society (ECLAC, 2010a). In the low-income population, the healthy years of life lost due to communicable diseases are higher in practically all age groups in comparison with the high-income group, whereas the trend with respect to non-communicable causes is similar across all socio-economic groups. This result suggests a triple disadvantage for the low-income sector, which is not only poor but also has high levels of mortality and morbidity, due to both communicable and noncommunicable causes (ECLAC, 2006).

Because of the demographic changes, dependency and care in old age will undoubtedly come to the forefront as one of the most pressing social issues of the twenty-first century with respect to social protection systems in general and health systems in particular (ECLAC/CELADE, 2010a). The benefits provided by the health systems in the region are deeply segmented, reflecting discriminatory practices, and since subsystems are fragmented, it is difficult to carry out effective interventions in terms of cost and the efficient use of resources. Differences in health, education and social protection tend to manifest less as a problem of access and more as a problem of clear discrepancies in quality between public and private institutions, reproducing, consequently, social inequalities. In this case, these are the differences that reproduce social inequalities (ECLAC, 2010b). This issue is particularly important to be tackled, since the ageing process will progressively require more human and monetary resources. In countries where the ageing process is further along, reforms will be necessary to adapt the system

to demographic change and to move towards sustainability of spending, access, and quality of care (ECLAC/CELADE, 2010a).

Actions to be taken in countries regarding inequality reduction

As has been discussed, even when there are improvements in relation to indicators such as infant mortality or life expectancy, inequalities in the region persist, or even grow. In Chile, for example, when groups from the extreme ends of the educational spectrum are taken into account, the infant mortality gap is growing. Similarly, in Colombia, even though medical care during the prenatal phase and during delivery has improved in recent years and subnational disparities have decreased, very marked inequities remain with regard to complications during delivery and postpartum (ECLAC, 2010b).

The examination of mortality patterns by area of residence, mother's education level and ethnic origin, in addition to other variables such as the occupation of the head of household and the housing conditions, makes it possible to identify groups that are at greater or lesser risk of dying. The regional averages on infant mortality hide great disparities between countries, and, in turn, the national averages hide disparities between population groups within countries. A case in point is Haiti, the poorest country in the Western hemisphere, with the highest infant mortality rate in the region: over 46 deaths per 1,000 live births. In this country, the gap trend seems worrisome, as, in 1994, the poorest and the wealthiest groups had quite similar infant mortality rates, but in 2005 the rate was nearly twice as high among the poorest segment as among the wealthiest, and the under-five mortality rate was more than twice as high (ECLAC, 2010b).

On the other hand, health improvements in Brazil, as measured by average child survival, represent progress towards Goal 4 of the Millennium Development Goal and have been accompanied by a reduction in the unequal distribution in infant mortality. This improvement was further accompanied by an equally marked and sustained reduction in the relative social gap. Excess mortality in the social gradient fell from 52.1 per thousand in 1997 to 36.2 per thousand in 2002 and to 22.6 per thousand in 2008, representing a 56.6% reduction in excess mortality disparities during the period. Still, nearly 31% of child deaths continue to be concentrated in the poorest quintiles, which underscores the unfinished work in this area (PAHO, 2009a).

If countries in the region intend to achieve a major reduction in infant and child mortality, health and community action must lay greater emphasis on neonatal and child health, focusing more on promoting effective policies and programmes, on pursuing evidence-based interventions, and on improving monitoring systems that pay special attention to poor and marginalized sectors of the population (ECLAC, 2010b). To prevent early neonatal deaths, coverage needs to be expanded to provide qualified personnel to attend births, individualized clinical care and access to emergency obstetrical care and early neonatal care. Later postneonatal and child deaths are due primarily to infections, which means that they are preventable, especially through interventions such as immunization by vaccinations, breastfeeding and hygiene, as well as access to drinking water and sanitation.

The health sector must coordinate action to identify the populations and territories with the highest infant mortality rates and determine the components of infant mortality and its main social causes, at the State and department level, as well as at the municipality and community level. Telemedicine, which has been gradually implemented in the region, is beginning to show the technology's potential to solve health-care access problems in communities that are isolated either geographically or by a lack of specialists (ECLAC, 2010b). It is necessary to organize child mortality surveillance systems and develop better information systems because the countries with the highest infant mortality rates also have the weakest health information systems. Good information systems are the only way to be able to identify quickly the main health problems of a population or a group within the population. The action that the health sector needs to take to reduce infant mortality is well known, but in order to achieve this target a broad social policy addressing the social factors that influence health is essential (ECLAC, 2010b). Together with geographic location, socio-demographic information on population is very valuable for implementing any plan of action that seeks not only to achieve the national targets set for 2015, but also to attain the maximum possible equity. Programmes that take into account certain localities or specific groups not only allow a more efficient use of resources, but also can cater for the specific needs accompanying child poverty in those geographical areas (ECLAC/UNICEF, 2010).

Borrowing from other regions' experience, such as Asia, it can be seen that, despite the variations in achievements, some countries are notable success stories. Suggested key factors include the ability to link maternal, neonatal and child health interventions to broader health system investments and to target access to rural and disadvantaged populations (Acuin, et al. 2011) Emphasis should also be put on the link that exists between child mortality reduction targets and the target of universal access to reproductive health. A number of child mortality risk factors relate directly to the mother's reproductive health. Children whose mothers are adolescent or over 40 and whose birth is separated from the previous one by a short interval are more likely to die. These risk factors are more common when fertility is high or there is little access to family planning services (ECLAC, 2010b).

Inequalities in information and access to reproductive health services stemming from level of schooling, place of residence and ethnic or racial origin must be reduced as these barriers impede the full enjoyment of rights and access to development opportunities. Accordingly, access to comprehensive sexual and reproductive health services must be strengthened and remaining barriers to access removed, primarily in the case of young people and adolescents (ECLAC/CELADE, 2010a). More attention should be focused on the sexual and reproductive health of young persons, incorporating HIV prevention, counseling and testing and access to condoms in an adolescent-friendly setting, with a view to providing comprehensive sex education (ECLAC, 2010b). Sexual and reproductive health services for adolescents and young people should be expanded and improved to include sex education, services tailored to their needs and developed in consultation with them, and the right to private and confidential access and advice (ECLAC/UNFPA, 2009).

In the countries of Latin America, this will involve strengthening health systems in order to achieve equal access, breaking the cycle of disadvantage that affects vulnerable groups, and promoting economic development and poverty reduction (ECLAC, 2010b). Moreover, a central aspect of the strategy for dealing with this problem is the cultural adaptation of services and taking an integral approach to the issue during all phases of the life cycle. To steadily bring down the levels of adolescent fertility, opportunities for education, training, employment and culture for adolescents of both sexes must be expanded. Drawing up a comprehensive policy to reverse rising adolescent fertility rates through education campaigns is instrumental, as well as providing access to contraceptives and ensuring that adolescent maternity does not interrupt education (ECLAC, 2010b). The unique psychosocial features of teenaged boys and girls and the social context in which they live must be taken into consideration, since merely offering sexual and reproductive health services is not enough (ECLAC/CELADE, 2010a).

In order to promote maternal health, it is essential to improve the quality of the health services available before conception, during the prenatal phase and delivery, and, in particular, emergency obstetric care. Levels of maternal mortality and care received during childbirth show that although there has been progress, there are still major health inequities. Maternal and child health programmes should also consider the heterogeneity of different peoples, areas and local contexts, and policy should take into account territorial factors and cultural considerations, in both rural areas and cities (ECLAC, 2010a).

In this regard, the Pan American Health Organization launched the Faces, Voices and Places initiative. The initiative aims to work in communities which are the most vulnerable in terms of all the Millennium Development Goals from a health and development perspective at the locality level. At-risk geographical areas were identified, and evidence showed that these territories span over two or more countries. The Transnational Territories initially identified were: the Mosquitia in Honduras and Nicaragua; the Altiplano area of Peru and the Plurinational State of Bolivia in the Lake Titicaca area; the Tri-Border area of Amazonia; and South America's Gran Chaco, which includes parts of Argentina, Paraguay and the Plurinational State of Bolivia. Intersectoral and inter-agency actions are being conducted in these territories as part of the Faces, Voices and Places initiative (ECLAC, 2010b).

Increasing access to a high-quality health system is indispensable, but much can also be done to prevent deaths without depending on formal, patient-centred health care. This includes, for example, supporting and promoting breast feeding and providing basic training to community health workers (ECLAC, 2010a).Furthermore, it is of key importance to enhance vital statistics, and, using the data that is generated, to monitor effectively the situation as regards maternal mortality and its trends (ECLAC, 2010b).

Reproductive health and population dynamics are key components that should be an integral part of poverty reduction strategies and development plans (ECLAC, 2010b). Moreover, correcting the major disparities in access to goods and services and ensuring

protection for groups suffering the greatest deficiencies in nutrition, health and education —particularly children— are key elements in formulating policies to eradicate extreme poverty. Policies to reduce the incidence of extreme poverty in the region cannot overlook problems of underemployment and precarious jobs, and must promote employment and social protection. Particularly, women and young people are affected by high unemployment rates, employment in low-productivity sectors, insecure employment conditions where they are often deprived of health and social security coverage, and low remuneration (ECLAC, 2010b).

International evidence seems to show that health-care systems based on a solid orientation towards primary care achieve better and more equitable results, are more efficient, have lower health-care costs and achieve more user satisfaction compared with systems which pay little attention to primary care. This type of health system places the emphasis on prevention and promotion, and guarantees the user's initial contact with the system, using families and communities as the basis for planning and action in relation to health, while also promoting intersectoral action to address other determining factors of health (ECLAC, 2010b). These are necessary conditions for overcoming extreme poverty on a sustainable basis and avoiding social exclusion (ECLAC, 2010a).

The socio-economic distribution of morbidity and mortality, as well as their determining factors (such as undernutrition), is very unequal in the region and the need to develop intersectoral strategies to address those determining factors is becoming critical; ministries of health can play an important role in this connection because of their regulatory functions. Synergies are required between various policies relating to well-being (on education, housing and income, for example) in a stable macroeconomic environment that favours economic growth and a better distribution of the fruits of development (ECLAC, 2010a).

Many of the determinants of health are outside the scope of the health sector. As literature shows, enjoyment of health goes far beyond sectoral policies: economic growth and performance, as well as the volatility of that performance, marked inequalities in income distribution, access to basic infrastructure and the effects of natural disasters all play a decisive role (ECLAC, 2010b). Countries should pursue cross-cutting and integrated public policies to foster prevention and health promotion, and ensure intersectoral cooperation to address the social determinants of health (PAHO, 2007). The content of action will and certainly should vary from place to place. The more focused and integrated is the cross- cutting strategy for action, the greater is the probability that health outcomes will change in the desired direction. In addition, policies to reduce health inequalities are likely to be more successful when there is a clear action plan – that can be implemented and monitored – within realistic timeframes (Judge et al., 2006).

Some of these intersectoral activities can, in turn, feed into the health sector and lead to new challenges. One example of this is when conditional transfers took the place of health checks in poverty reduction programmes. As shown in Mexico, improving the quality of the health care available to beneficiaries of the Oportunidades transfers programme requires increased financing and stronger health-care providers (Bertozzi et

al., 2008). In Latin America conditional cash transfer programmes have led to an increase in the use of preventive health-care services by transfer beneficiaries. It should be noted that transfer programmes should be accompanied by an improvement in health services and in the family environment of beneficiaries (PAHO, 2009b).

A supportive structure is required for implementation of plans in a sustainable manner. Institutions in charge of public health implementation at national and regional levels need to recognise the importance of the health inequalities issue, and also have the capacity to implement relevant policies. The same applies to other stakeholders, such as local authorities and providers of health care services and medical professionals, as well as representatives of civil society (Judge et al., 2006). Thus, a ongoing capacity building strategy must accompany any action geared at tackling inequality and its impacts on mortality and morbidity. Countries must undertake reforms and implement measures to take them towards universal access and social health care, including initiatives to extend coverage to the entire population for a growing number of services and with increasingly small out-of-pocket expenses (ECLAC, 2010b). In response to people's needs and expectations, health care should be person-centred. Countries must take steps to organize and reform their health services in order to guarantee access to quality care at the local level (PAHO, 2007). It is fundamental to take an intersectoral approach at the subnational level, particularly in the most vulnerable municipalities or regions, with a view to promoting decentralization and highlighting the challenges of inequity that require a redoubling of efforts in order to reduce inequalities in access to health (ECLAC, 2010b).

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