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"Evaluating the Millennium Development Goal Target on Universal Access to Reproductive Health: a View from Latin America and the Caribbean"[1]

Maren Andrea Jiménez and Jorge Rodríguez[2]

## I. Introduction: Reproductive health on the agenda of international conventions

The exclusion of a specific goal to address sexual and reproductive health (SRH) at the outset of the Millennium Development Goals in 2000 served as a call to action by experts and professionals to emphasize the gravity of this omission, given that without improvements in SRH the majority of MDG targets would not be met. In 2005 the Outcome Document of the World Summit partially addressed this exclusion when including additional targets for inclusion to those originally established by the Millennium Declaration, most notably the target of ensuring universal access to reproductive health worldwide by 2015 (as part of the goal of reducing maternal mortality). Both this target and the indicators included to measure it—the adolescent fertility rate, the rate of contraception use, the unmet need for contraception and the use of prenatal care—were identified by the Inter-agency and Expert Group (IAEG) on MDG Indicators as the most relevant to this target (WHO/UNFPA 2008).

The recent inclusion of the universal access to reproductive health as a target of the Millennium Development Goals (MDG) reaffirms the importance of this topic in promoting sustainable development and poverty eradication within a human rights framework. This idea was not new, but instead based on the central theme of the International Conference on Population and Development (ICPD) held in Cairo in 1994, which posited access to reproductive health and family planning services as a basic human right. Indeed, among the actions included in the ICPD Program of Action (PoA) was that, "All countries are called upon to strive to make reproductive health accessible through the primary health-care system to all individuals of appropriate age as soon as possible and no later than 2015," (United Nations, 1994). The incorporation of the central theme of the ICPD Programme of Action into the MDG agenda is particularly important, given that many countries and donors have shifted their primary attention to those goals included in the MDGs, often to the detriment of programmatic goals stemming from other international agreements regarding population and development.

Thus, the inclusion of universal access to reproductive health no doubt presents an advance in promoting SRH as part of development strategies. The goal and its indicators as they were incorporated into the MDGs, however, suffer from several shortcomings. In particular, several characteristics of fertility, contraceptive use and access to reproductive health services in Latin

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[2] Associate Population Officer and Research Assistant, respectively, at the Centre for Latin American and Caribbean Demography (CELADE)—Population Division of the UN Economic Commission for Latin America and the Caribbean (ECLAC). Please address correspondence to maren.jimenez@cepal.org, or Maren Andrea Jiménez, CELADE–Population Division, UNECLAC, Avenida Dag Hammarskjöld 3477, Vitacura – Santiago, Chile.

America and the Caribbean (LAC) challenge the effectiveness of this MDG target in the region. Overall improvements in reproductive health have not been sufficient to erase the historical disparities between social and economic groups in terms of access to and use of contraceptives and reproductive heath services in the region, particularly according to socio-economic status, ethnicity, and geographical location. Furthermore, while the TFR has been decreasing in all countries of LAC, tendencies in adolescent fertility rates are mixed; this suggests that the factors that influence adolescent fertility differ from those that affect fertility at later ages, and thus requires different interventions than in the past. Finally, although under the ICPD PoA universal access to reproductive health is not only a right afforded to women, but also men and couples, men have largely been ignored in studies of fertility in the LAC region, both as clients and as partners. In sum, as they stand the four MDG indicators on universal access to reproductive health fall short of covering the main challenges to SRH that remain in the LAC region.

Thus, these characteristics of fertility and fertility control necessitate a careful evaluation of the new MDG target and indicators and their specific relevance to reproductive health in the LAC region. This is particularly valid given that the inclusion of an MDG specifically dealing with SRH has opened the door to further conversations regarding what actions are necessary in order to ensure universal access to reproductive health by 2015, including additional indicators that can measure progress in achieving this target.

As such, we present an overview of the MDG target on universal access to reproductive health and its four indicators— the adolescent birth rate, the contraceptive prevalence rate, the unmet need for family planning, and the prevalence of prenatal care use—and explore the challenges and limitations these indicators present to the monitoring of reproductive health. Next, we analyze data from Demographic and Health Surveys, International Reproductive Health Surveys and other national fertility surveys in order to calculate a wider range of disaggregated indicators on reproductive health in as many countries of the region as possible, including men's data from these surveys. We conclude that any further gains in the access to reproductive health in Latin America and the Caribbean will not be achieved without addressing social and economic disparities, improving adolescents' access to reproductive health education and services, and ensuring the inclusion of men in reproductive health strategies.

## II. Universal access to reproductive health: a complex concept with a complicated operationalization

In order to effectively evaluate the goal of universal access to reproductive health services we first must arrive at a working definition of the concept. Although the move from an emphasis on family planning to the right to reproductive health in the 1994 ICPD PoA represented a major gain for the SRH stakeholders (UN Millennium Project, 2006), unfortunately, the definition of universal access given in this document and in the 2005 World Summit Outcome Document is general and vague. This conceptual complexity has impaired sustained efforts to improve SRH, despite its importance to poverty reduction and development goals.

A recent WHO/UNFPA (2008) document presents a detailed discussion about the concept of universal access to reproductive health, including the recognition of the difficulty in defining and measuring this concept. This document states that, "for a number of reasons, measuring universal

access to sexual and reproductive health and monitoring the extent to which it has been achieved poses challenges to operation and interpretation," (p. 4).

The same document later indicates that,

> In a broad sense, universal access implies the ability of those who need health care to obtain it. This definition suggests, for example, the ability of all individuals with a diagnosed sexually transmitted infection (STI) to receive an effective treatment, or of those who want to delay pregnancy to obtain effective contraception. In practical terms, therefore, "universal access" means "equitable access" – that is, equal access for people with equal need (p.4).

This document goes on to define universal access to sexual and reproductive health as,

> **The equal ability of all persons according to their need to receive appropriate information, screening, treatment and care in a timely manner, across the reproductive life course**, that will ensure their capacity, regardless of age, sex, social class, place of living or ethnicity to: decide freely how many and when to have children and to delay or to prevent pregnancy; conceive, deliver safely, and raise healthy children, and manage problems of infertility; prevent, treat and manage reproductive tract infections and sexually transmitted infections including HIV/AIDS, and other reproductive tract morbidities, such as cancer; and enjoy a healthy, safe and satisfying sexual relationship which contributes to the enhancement of life and personal relations (p. 41, bold not in original).

Thus, under this definition the core concept of universal access to reproductive health is based largely on access to health care services. This document identifies the following dimensions as the main targets for health care services: i) family planning; ii) prenatal care, safe delivery and postnatal care; iii) infant and women's health care; iv) infertility; v) unsafe abortion; vi) sexually transmitted diseases, and other reproductive health conditions; vii) human sexuality; and viii) harmful practices. The specific services for each issue are different, but in general are composed of medical care, education and counselling to prevent risks and diseases and punish against harmful practices (such as female genital mutilation).

The conclusion of this document underlines that,

> Although "access to reproductive health" is not confined to health care, the PA of the ICPD suggests the achievement of this goal through primary health care. Therefore, health-care indicators constitute a major component determining the extent of the achievement of the ICPD goal. However, important societal factors should also be monitored, as it recognizes the influence of the wider context affecting health behaviour and service uptake. In sum, the range of indicators should include social determinants, process indicators, measures of access, utilization, and quality, as well as outcome measures.

> The concept of "universal access" should reflect equity (equal access for equal need, usually difficult to measure) through proxies like relative differences and geographic disparities in access and use per need, and in financial and human resources for health. The inclusion of sexual and reproductive health services as an essential health package is another indicator to be considered.
>
> Some of the sexual and reproductive health outcomes are more amenable to health-care interventions (e.g. maternal mortality and morbidity), but others (e.g. FGM and sexual violence) are less so. The latter group is largely influenced by social and cultural determinants, and how we measure and monitor them is critical to the development of robust indicators.
>
> While universal access requires increasing the services offered, efforts must also be devoted to ensuring increased uptake and sustained use. Universal access therefore must be seen in the context of availability, affordability, appropriateness, quality, acceptability, and continuity/sustainability of services.
>
> In evaluating sexual and reproductive health services, inputs such as policy, financing, and human resources; outputs such as health information, service availability, and quality; and outcomes such as utilization (demographic and geographic) should be available to correlate with outcome measures such as well-being, morbidity, disability, and mortality.
>
> Process indicators measuring performance further along the 'causal chain' (i.e. intermediate output indicators of service utilization and practice) are stronger proxy indicators than those earlier in the intervention pathway (i.e. input and direct output indicators of availability, physical accessibility, and quality of care) whose influence on eventual outcome will be mediated by intervening factors (p. 9).

While this definition of universal access covers a wide range of outcomes, contexts, and inputs, two aspects that are relevant to universal access in Latin America and the Caribbean are not included. The first is that of confidentiality of reproductive health services, which is particularly important to meeting the reproductive health needs of adolescents. The second is that of cultural sensitivity, which comes into play when considering the reproductive health needs of indigenous and Afro-descendent peoples, whose sexual and reproductive behaviours must be contextualized.

Nonetheless, this definition of universal access to reproductive health suggests the need for a wide variety of indicators, yet the question still remains as to which indicators best serve the purpose of measuring and promoting universal access to reproductive health. Accordingly, at least three approaches exist to operationalize this definition of universal access to reproductive health, which are as follows:

1. First, we refer to the list presented in the WHO/UNFPA 2008 document as the "exhaustive approach." This list includes dozens of indicators, which are presented in several matrices that fall into the following four categories:

a. determinants: policy and social factors;
b. access: availability, information, demand, quality;
c. use; and
d. output/impact,

and that cover the following four broad dimensions:

i) family planning;
ii) maternal, perinatal, and newborn health, including eliminating unsafe abortion;
iii) sexually transmitted infections (including HIV) and reproductive tract infections (STI/RTI) and other reproductive morbidities, including cancer; and
iv) sexual health, including adolescent sexuality and harmful practices.

While the range of indicators included in this approach represents the operationalization of all aspects of sexual and reproductive health, its main detriment is most obviously its exhaustivity. On one hand, it is difficult to assemble the entire list of indicators listed. Some of these indicators require special sources (expert groups, policy review, specialized surveys, etc.), and others can be calculated on the basis of good administrative records, which unfortunately are rare in the developing world. The gaps left from the lack of data available to construct indicators hinder the monitoring and evaluation of the state and progress of universal access to reproductive health, both within and between countries.

On the other hand, this approach, although the most conceptually appropriate in terms of capturing the various facets involved in ensuring universal access to reproductive health, is of less value in identifying priority areas for public policy intervention in scenarios where challenges to reproductive health exist on multiple fronts in resource poor settings (even though the document does make the distinction between "core," "additional," or "extended" indicators).

2. The "priority approach" would be the "short list" of 17 indicators elaborated by the WHO/UNFPA (2004), which are as follows:

1. Total fertility rate
2. Contraceptive prevalence
3. Maternal mortality ratio
4. Antenatal care coverage
5. Births attended by skilled health personnel
6. Availability of basic essential obstetric care
7. Availability of comprehensive essential obstetric care
8. Perinatal mortality rate
9. Prevalence of low birth weight
10. Prevalence of positive syphilis serology in pregnant women
11. Prevalence of anaemia in women
12. Percentage of obstetric and gynaecological admissions owing to abortion
13. Reported prevalence of women with genital mutilation

14. Prevalence of infertility in women
15. Reported incidence of urethritis in men
16. Prevalence of HIV infection in pregnant women
17. Knowledge of HIV-related preventive practices

As these agencies themselves acknowledge, a number of these indicators are difficult to calculate, thus leaving gaps in the monitoring of sexual and reproductive health. This evaluation points to the need to review this list of indicators to determine their relevance and utility in national contexts (WHO/UNFPA 2004).

3. The "synthetic approach" further whittles down the number of indicators suggested to measure universal access to reproductive health to only a handful. For instance, Dixon-Muller and Germain (2007) argue that there is no one indicator that adequately captures access to reproductive health in a rights-based framework, and thus propose the following three indicators: i) total fertility rate and contraceptive prevalence; ii) unmet need for contraception and unplanned births; and iii) unsafe abortion and abortion mortality. Additionally, Bernstein and Eduard (2007), argue in favour of the importance of including the unmet need for contraception as an indicator of family planning needs.

The four official indicators defined to measure progress in the achievement of the new MDG target on universal access to reproductive health falls within this approach. Originally, the UN Millennium Project Child Health and Maternal Health Task Force suggested the target, "Universal access to reproductive health services by 2015 through the primary healthcare system, ensuring faster progress among the poor and other marginalized groups." Four indicators were proposed to monitor this target—the contraceptive prevalence rate, proportion of desire for family planning satisfied, the adolescent birth rate, and the HIV prevalence among 15- to 24-year-old pregnant women (UN Millennium Project, 2005). Indeed, adolescent fertility, contraceptive use, and some variant of unmet need for family planning have been included in most proposals of indicators of universal access to reproductive health.

The final target and indicators incorporated into the revised MDG monitoring framework stand as follows:

Target 5.B: Achieve, by 2015, universal access to reproductive health

5.3 Contraceptive prevalence rate

5.4 Adolescent birth rate

5.5 Antenatal care coverage (at least one visit and at least four visits)

5.6 Unmet need for family planning

According to WHO/UNFPA (2008), these indicators serve as measures of use of family planning, outcome of family planning services use of maternal and perinatal health services, and the demand for family planning services, respectively. However, these indicators only partially cover two dimensions of universal access to sexual and reproductive health—family planning and maternal and infant health—thus excluding unsafe abortion, STI/RTI and other reproductive

morbidities, and sexual health. It must be noted, however, that the MDG target makes reference *only* to reproductive health, and that separate MDG goals and indicators on reducing child mortality, reducing maternal mortality, and combating HIV/AIDS already exist.

In this paper we evaluate these indicators to determine their effectiveness in measuring progress in achieving the target of universal access to reproductive health in Latin America and the Caribbean. Clearly the primary advantage of this approach is the ease with which these indicators can be calculated for the majority of Latin American and Caribbean countries, as will be demonstrated in the following section. However, we shall argue that these set of indicators are insufficient for depicting a detailed description of the progress in the achievement of this new MGD target in the LAC region. Accordingly we will use in select cases indicators taken from other approaches to complement the four official MDG indicators on universal access to reproductive health. Finally, we not only propose complementary indicators to those officially included in Target 5.B, but also highlight the inequality in these indicators—by age, socio-economic status, geographical location, and gender—to elucidate the equity and equality aspect of the universal access to reproductive health.

## The new MDG indicators on universal access to reproductive health in Latin America and the Caribbean

*Adolescent fertility rate*

The inclusion of the adolescent fertility rate (AFR) as an indicator of universal access to reproductive health is paradoxical, given that it is not consistent from a human rights standpoint. Indeed, one of the main gains of the ICPD was the move away from aiming to reducing the TFR to ensuring the full and free exercise of reproductive rights. Notwithstanding, the ICPD Programme of Action exhibits some degree of ambiguity regarding adolescent fertility. The document does not contain a final conclusion regarding an indicator to measure adolescent health because the objective is solely, "to substantially reduce all the adolescent pregnancies." This validates the indicator in a political sense, although it distances the indicator from a focus on human rights and social determinants. Instead, it comes closer to a risk prevention strategy and speaks to pubic health measures. The adolescent birth rate, or the annual number of births to women 15 to 19 years of age per 1,000 women in that age group, is the indicator that was incorporated in the MDG Target on universal access to reproductive health. This indicator represents the risk of childbearing among adolescent women in these ages.

Undeniably, adolescent fertility is a crucial dimension of SRH in Latin America. Addressing it is one of the major challenges to achieving the new MDG target on universal access, given that on the global scale the region is characterized by levels of adolescent fertility much higher than would be expected given its levels of total fertility, its levels of socio-economic development and its advancement in the rest of the MDGs. Furthermore, the region has achieved very little reduction in this indicator from 1990 to the present. As a result, current levels of adolescent fertility in Latin America and the Caribbean are second only to sub-Saharan Africa (see Table 1).

Table 1. Age-specific fertility rates for women 15 to 19 years old, by sub-regions and socio-economic groupings of countries: 1990-2005.

| Region | 1990 | 2005 | % change |
|---|---|---|---|
| **World** | 61 | 48.6 | 20.3 |
| **Developed Regions** | 34.7 | 23.6 | 32.0 |
| **Developing Regions** | 66.5 | 53.1 | 20.2 |
| North Africa | 42.9 | 31.5 | 26.6 |
| Sub-Saharan Africa | 130.6 | 118.9 | 9.0 |
| **Latin America and the Caribbean** | **77.4** | **73.1** | **5.6** |
| East Asia | 21.3 | 5.0 | 76.5 |
| South Asia | 90.1 | 53.7 | 40.4 |
| Southeast Asia | 50.4 | 40.4 | 19.8 |
| West Asia | 63.6 | 50.2 | 21.1 |
| Oceania | 82.3 | 63.5 | 22.8 |
| **Community of Independent States** | 52.1 | 28.4 | 45.5 |
| Community of Independent States (Europe) | 44.8 | 28.9 | 35.5 |
| Community of Independent States (Asia) | 55.2 | 28.1 | 49.1 |

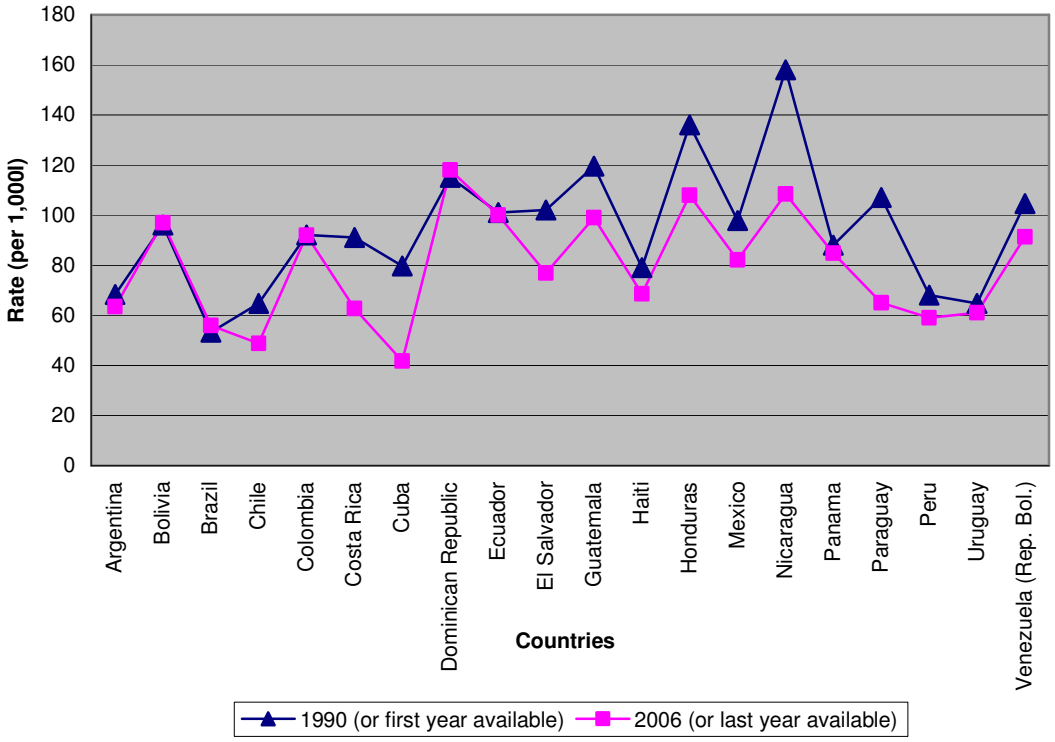
**Source**: The Millennium Development Goals Report, 2008 (www.mdgs.un.org)

It should be noted that the official estimates of the adolescent birth rates for the MDG database are based on a range of sources, and accordingly, are calculated utilizing different procedures, which reduces comparability across figures—occasionally, even for the same country across time[3]. Regardless, the results from the MDG database illustrate a range of situations in Latin America (see Table 1). Decreases generally predominate between 1990 and 2005, but in half the countries for which there are data AFRs have remained constant or slightly increased. This is in significant contrast to the tendencies in TFRs, which have fallen drastically in all countries in the region during this period (for TFR estimates and projections calculated by CELADE for the LAC region, see www.eclac.cl/celade/proyecciones/xls/LATtgfTO.xls).

Indeed, trends in adolescent fertility are a contentious subject in the LAC region. Although the total fertility rate has undeniably been on decline in all countries of Latin America and the Caribbean, the tendencies in adolescent fertility rates in Latin America are mixed—depending on the time frame and data source used to construct trends, countries can demonstrate decreases, increases or stagnation in adolescent fertility rates over time.

Figure 2. Tendencies in the adolescent birth rate, 20 countries in LAC region: around 1990 to around 2000.

[3] "Estimates based on civil registration are only provided when the country reports at least 90 per cent coverage and when there is reasonable agreement between civil registration estimates and survey estimates. Small discrepancies might arise due to different denominators or the inclusion of births to women under 15 years of age. Survey estimates are only provided when there is no reliable civil registration. There might be discrepancies on the dating and the actual figure if a different reference period is being used. In particular, many surveys report rates both for a three-year and a five-year reference period. In such a case, the five-year reference period closest to the survey is used for global monitoring. For countries where data is scarce, reference periods located more than five years before the survey might be used. Note that, given the restrictions of the Millennium Development Goals database, only one source is provided by year and country. In such cases precedence is given to the survey programme conducted most frequently at the country level, other survey programmes using retrospective birth histories, census and other surveys in that order. The adolescent birth rates reported for global MDG monitoring differ also from those calculated by the United Nations Population Division in the *World Population Prospects* publication. The latter are based on population reconstruction at the country level and provide a best estimate based on all the available demographic information. The estimates for MDG global monitoring are direct estimates from country data on adolescent births" (UN Millennium Development Goals Indicators Database).




**Source**: The Millennium Development Goals Indicators Database, last accessed 03/01/2009 (http://millenniumindicators.un.org).

In addition to the limited compatibility between adolescent birth rates, this indicator suffers from various weaknesses that reduce its relevance for monitoring trends and informing programmatic efforts to address adolescent reproductive health. What follows is a review of what we esteem to be the limitations in the use of adolescent fertility rate as an indicator of universal access to reproductive health. The first is of a political nature and the second 2 are of a technical nature (although not completely unrelated to the political limitations).

The first shortcoming is that the adolescent fertility rate is *not* the most intuitive indicator for the people who are meant to use it. For decision makers and the general public, the notion of the "risk of adolescent childbearing" can be cryptic. Additionally, it refers to a risk that adolescents may face more than once. The risk of adolescent childbearing, furthermore, is not the topic most relevant to public policy. The ultimate objective of policymakers is to reduce the experience of adolescent motherhood, which materializes once an adolescent has her first child before the age of 20—if she has more than one child her situation most likely will be more complicated, but her status as a teen mother will go unchanged.

In this sense, two more intuitive and relevant indicators are the following:

1. The proportion of adolescent women who are already mothers at the time of data collection (which shall be referred to as the "proportion of mothers" from here on forward); and
2. The proportion of young women (20-24 or 20-29 years old) that were mothers before their 20$^{th}$ birthday.

The first indicator can easily be calculated with census[4] and survey[5] data, but not on the basis of vital statistics registries. However, this is not particularly problematic to the LAC region; vital statistics data is not widely used due the fact that the majority of the countries of the region suffer from problems of data coverage and quality (CELADE, 2007). The second indicator can be calculated on the basis of birth history data typically collected in Demographic and Health Surveys (DHS) or the International Reproductive Health Surveys (IRHS).

Public intervention should first focus on adolescents with the objective of prevention, then on teenage parents with palliative purposes, particularly the mother, who usually assumes the responsibility of parenting many times with the support of her parents. The proportion of adolescent mothers provides straightforward policy information, since not only is it a measure of the effective reach of the main problem, but it also serves for the identification and characterization of the affected population that immediately requires mitigation measures.

The second weakness is that the adolescent fertility rate is strongly affected by the age structure of adolescents, given that the risk of being mother increases markedly at the higher ages of this age group. Thus, differences in the age-specific fertility rate for 15 to 19 year olds (over time, or between groups) can be due to the age structure of this group and not to real discrepancies in the levels of fertility. For example, an increase in the representation of 19 year olds between two years could generate a spurious increase in the adolescent fertility rate, given that fertility tends to be highest at the extreme of this age group. This problem also affects the proportion of mothers indicator; however since it is a much simpler calculation, results can be disaggregated by single-age group and can be presented according to this disaggregation or as a standardized indicator. [6]

Finally, the last shortcoming, not only technical in nature but also related to the first political weakness mentioned, is that the age-specific fertility rate considers all births regardless of the birth order. Thus, a reduction in higher-order births during adolescence can result in a decrease in the adolescent birth rate, without a corresponding decrease in the proportion of teenage mothers. As Figure 2 illustrates, the proportion of second order and higher births among the total births to adolescent mothers has decreased in recent years. This could possibly indicate that whatever decreases in the adolescent fertility rate experienced in the region from 1990 to the present is due to a reduction of parity amon adolescent mothers, and not a decrease in teenage childbearing. The effect of parity among 15 to 19 year olds is not necessarily reflected in the

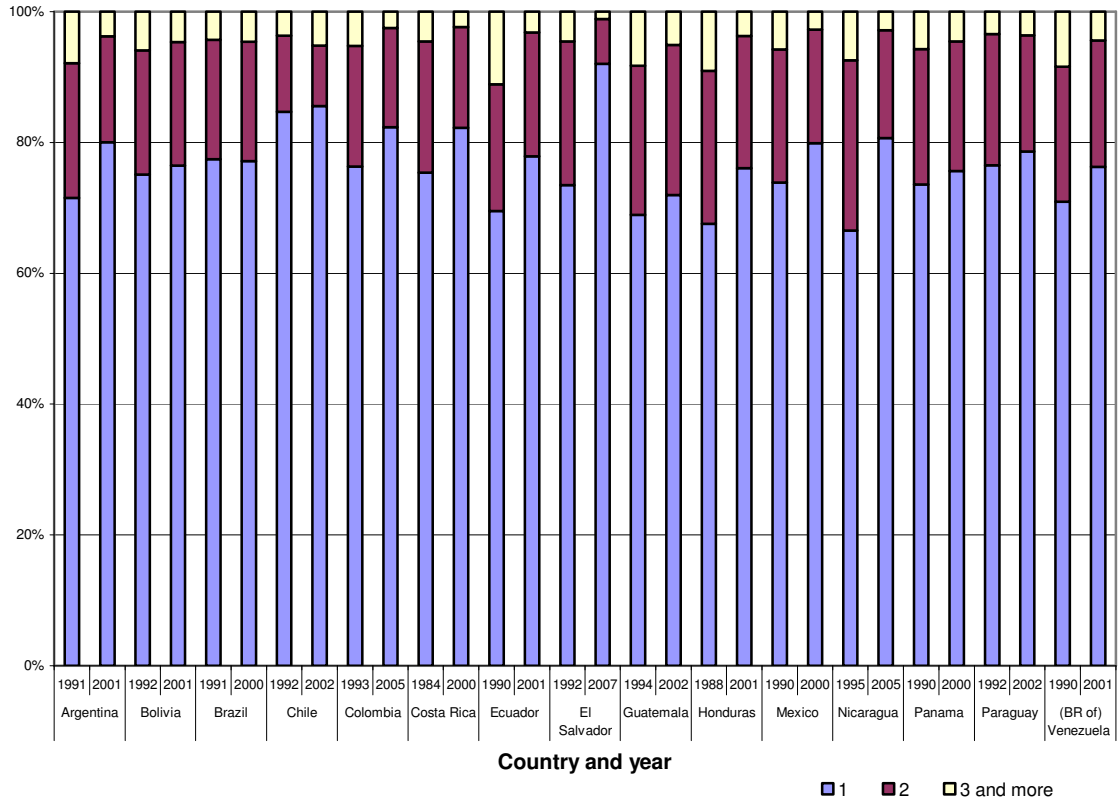
[4] The availability of census microdata provides the means—by way of imputations based on efficient predictors—to more effectively address the main challenge of this data source, namely high levels of non-response to the question of live births among teenagers.

[5] An indicator which surveys, in particular the DHS, broadens to "the percentage of women 15 to 19 who are mothers or are pregnant with their first child".

[6] The calculation of age-specific fertility rates by single year age groups is not easy, both because indirect methods of estimation of fertility rates have been designed for 5 year age groups, as well as because direct estimation of rates based on survey samples lose their robustness when utilizing small samples. Only calculations based on vital statistics permit for reliable estimates of age-specific fertility rates by single year age groups, but as previously mentioned, this source of data is infrequently used due to problems with coverage and quality in the majority of the countries in the region.

other indicator of early childbearing we recommend—the percentage of mothers among the female adolescent population.

Figure 2. Relative distribution of adolescent mothers (15 – 19 year olds) by number of children ever born, select countries of Latin America: 1990 and 2000 rounds of censuses.




Source: CELADE, 1990 and 2000 round census data.

Table 2 presents the percentage of adolescents that are mothers obtained from the 1990 and 2000 rounds of censuses available at CELADE (17 Latin American and Caribbean countries). When utlizing this indicator, trends indicate that during this period adolescent motherhood increased in a majority of the countries. In South America, all countries save Paraguay register an increase in the percent of teenage mothers. Nevertheless, Table 2 also paints a diverse picture in Central America—while levels of adolescent motherhood drop in Nicaragua and Guatemala, they rise in El Salvador, Honduras, Costa Rica and Panama.

Table 2. Trends in the proportion of women 15 – 19 years old that have at least one child, by single year age groups, Latin America: circa 1990 and 2000 (in percentages).

| Country | Census year | Years of age | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | 15 | 16 | 17 | 18 | 19 | |
| Argentina | 1991 | 3.3 | 6.6 | 11.2 | 17.3 | 23.1 | 11.9 |
| | 2001 | 3.7 | 6.5 | 11.2 | 17.2 | 23.6 | 12.4 |
| Bolivia | 1992 | 1.6 | 4.4 | 9.9 | 17.9 | 28.0 | 11.7 |
| | 2001 | 2.0 | 5.7 | 11.7 | 20.8 | 29.2 | 13.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Brazil | 1991 | 2.2 | 5.2 | 10.4 | 17.2 | 24.3 | 11.5 |
| | 2000 | 3.3 | 7.6 | 13.8 | 20.8 | 28.1 | 14.8 |
| Chile | 1992 | 2.1 | 4.8 | 9.8 | 16.1 | 24.8 | 11.8 |
| | 2002 | 6.3 | 5.1 | 10.2 | 16.7 | 24.1 | 12.3 |
| Colombia | 1993 | 2.6 | 6.4 | 12.8 | 20.9 | 29.3 | 14.0 |
| | 2004/05 | 2.9 | 7.1 | 13.7 | 21.0 | 28.6 | 14.3 |
| Costa Rica | 1984 | 2.0 | 5.6 | 10.9 | 18.6 | *27.5* | 12.8 |
| | 2000 | 2.5 | 6.2 | 11.8 | 19.8 | *27.5* | 13.2 |
| Dominican Republic | 1993 | ND | | | | | ND |
| | 2002 | 4.4 | 9.1 | 15.4 | 23.6 | 32.1 | 16.7 |
| Ecuador | 1990 | 6.2 | 5.4 | 11.0 | 19.4 | 27.9 | 13.5 |
| | 2001 | 3.2 | 8.1 | 14.9 | 23.9 | 32.5 | 16.3 |
| El Salvador | 1992 | 2.8 | 6.8 | 13.5 | 22.0 | 30.6 | 14.4 |
| | 2007 | 4.1 | 8.2 | 14.3 | 22.2 | 30.1 | 15.4 |
| Guatemala | 1994 | 2.9 | 7.3 | 14.5 | 25.1 | 35.5 | 16.1 |
| | 2002 | 2.6 | 6.9 | 14.2 | 23.1 | 33.0 | 15.5 |
| Honduras | 1988 | 3.6 | 8.1 | 15.6 | 25.2 | 34.6 | 16.6 |
| | 2001 | 3.0 | 8.4 | 17.1 | 27.6 | 38.0 | 18.3 |
| Mexico | 1990 | 1.4 | 3.8 | 8.6 | 16.1 | 24.2 | 10.4 |
| | 2000 | 1.8 | 4.8 | 10.7 | 18.2 | 26.2 | 12.1 |
| Nicaragua | 1995 | 5.0 | 12.6 | 23.7 | 34.8 | 46.0 | 23.9 |
| | 2005 | 4.3 | 10.7 | 19.8 | 28.9 | 38.4 | 20.0 |
| Panama | 1990 | 3.6 | 8.2 | 15.2 | 22.4 | 30.8 | 16.1 |
| | 2001 | 4.1 | 9.3 | 16.2 | 25.4 | 33.3 | 17.4 |
| Paraguay | 1992 | 2.0 | 6.2 | 13.0 | 23.4 | 32.9 | 15.0 |
| | 2002 | 1.9 | 5.1 | 10.1 | 17.8 | 26.7 | 12.1 |
| Peru | 1993 | 2.2 | 4.9 | 9.7 | 16.7 | 24.0 | 11.2 |
| | 2007 (first results) | ND | | | | | 11.5 |
| (B.R. of) Venezuela | 1990 | 3.3 | 6.9 | 13.0 | 19.9 | 27.5 | 13.8 |
| | 2001 | 3.2 | 7.5 | 13.7 | 21.7 | 29.8 | 15.0 |
| Uruguay | 1985 | 1.2 | 3.4 | 7.2 | 12.4 | 19.3 | 8.4 |
| | 1995 | 5.0 | 7.7 | 12.8 | 18.4 | 24.6 | 13.9 |

Source: CELADE, 1990 and 2000 round census data. Results from the 2007 Peruvian census were processed on-line at http://www.inei.gob.pe/censos2007/.

ND: No data.

Note: All calculations with regards to adolescent maternity obtained from census data and presented in this paper impute null parity to adolescents that did not respond to the question on number of live births. For arguments in favour of this method, see Rodríguez (2005).

These results are key to resolving the regional debate regarding the tendencies of early childbearing in the region (Rodríguez, 2008). It is easy to guess why an apparently simply and "objective" topic could generate such different readings: conclusions regarding trends depend on

the source, the indicator, and the period under consideration. In sum, Table 2 is both convincing and disquieting, for it reveals an increasing tendency of teenage motherhood in the majority of the countries, a trend unparelleled on a global scale.

This resistance to decline that early motherhood demonstrates contrasts with continuous declines in global fertility documented by all studies of Latin America and the Caribbean. This contradiction implies that the theories and determinants of fertility do not apply to the current state of adolescent fertility. Accordingly, this indicates that the interventions successful for reducing total fertility have not been successful in the case of adolescent fertility (which requires specific programmes and practices) every time that the achievements brought about by lower fertility for families and women could be eroded if fertility becomes concentrated at earlier ages.

*Contraceptive prevalence rate*

The contraceptive prevalence rate is considered a measure of the use of family planning services and is widely used to evaluate the success of reproductive health programs. As an indicator of the MDG target on universal access to reproductive health, it is calculated as the percentage of married or in-union women 15-49 years old currently using any method of contraceptives. The main advantages of contraceptive use as an indicator of universal access to reproductive health comprise of its traditional inclusion in reproductive studies and its demonstrated relationship with the TFR (Dixon-Mueller and Germain, 2007). In general, high contraceptive use goes hand in hand with low fertility rates, as currently demonstrated in countries such as Brazil, Costa Rica, and Cuba.

The importance of this indicator to reproductive health in Latin America and the Caribbean has been extensively documented, first with the *Programa de Encuestas Comparativas de Fertilidad en America Latina* (PECFAL) surveys in 1964-1966 (10 metropolitan areas) and 1968 (rural areas in 4 countries) (ECLAC/CELADE, 1963; Simmons, Conning and Villa 1979), and later with the World Fertility Surveys (WFS) (United Nations, 1987) and DHS (ECLAC/CELADE 1993). As can be seen in Table 3, the PECFAL Urban study conducted between 1964 and 1966 documented only about a total of 42 percent of married women residing in 10 metropolitan areas were using methods of contraception at the time of the survey (CELADE and CFSC 1972). Additionally, at that time great disparities in contraceptive use existed between these cities, such that while in Buenos Aires over 60 percent of married women were practicing contraceptive use, less than a third of their counterparts in Bogota and Mexico City were doing the same.

Table 3. Percent of married female respondents currently using methods of contraception, 10 metropolises in Latin America: 1964/1966

| City | Average number of children per woman | Reliable method | Less reliable method | Sterilized | Not using method, fertile | No information |
|---|---|---|---|---|---|---|
| Buenos Aires | 2.2 | 31.6 | 30.2 | 0.3 | 36.5 | 1.4 |
| Rio de Janeiro | 3.6 | 12.2 | 19.8 | 6.1 | 56.6 | 5.2 |
| Bogota | 5.7 | 9.1 | 18.0 | 1.1 | 71.2 | 0.6 |
| San Jose | 5.1 | 21.2 | 22.2 | 6.0 | 49.2 | 1.1 |
| Mexico City | 5.8 | 9.9 | 15.0 | 2.0 | 72.6 | 0.6 |
| Panama City | 4.7 | 11.1 | 12.0 | *(19.9)* | 56.0 | 0.9 |
| Caracas | 5.2 | 21.2 | 20.8 | 5.6 | 50.2 | 2.1 |
| Quito | 5.7 | 9.1 | 16.4 | 6.6 | 65.3 | 2.4 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Guayaquil | 6.1 | 9.0 | 17.1 | 6.5 | 66.6 | 0.8 |
| Total sample | -- | 14.9 | 19.1 | 6.0 | 58.2 | 1.7 |

Source: CELADE and CFSF, 1972.
Note: It is suspected that the figure for percent sterilized in Panama City is due to a coding error.

Nevertheless, contraceptive use has risen significantly and fertility rates fallen precipitously since then, such that current data indicate some national averages high enough to be comparable with countries of the developed world (see Figure 3). Discrepancies in contraceptive use between countries persist, however. Notably, contraceptive use in Bolivia, Guatemala and Haiti are well below other countries in the region. Yet overall, increases in contraceptive use among married women have driven the sharp declines witnessed in fertility rates during the second half of the last century in the LAC region.

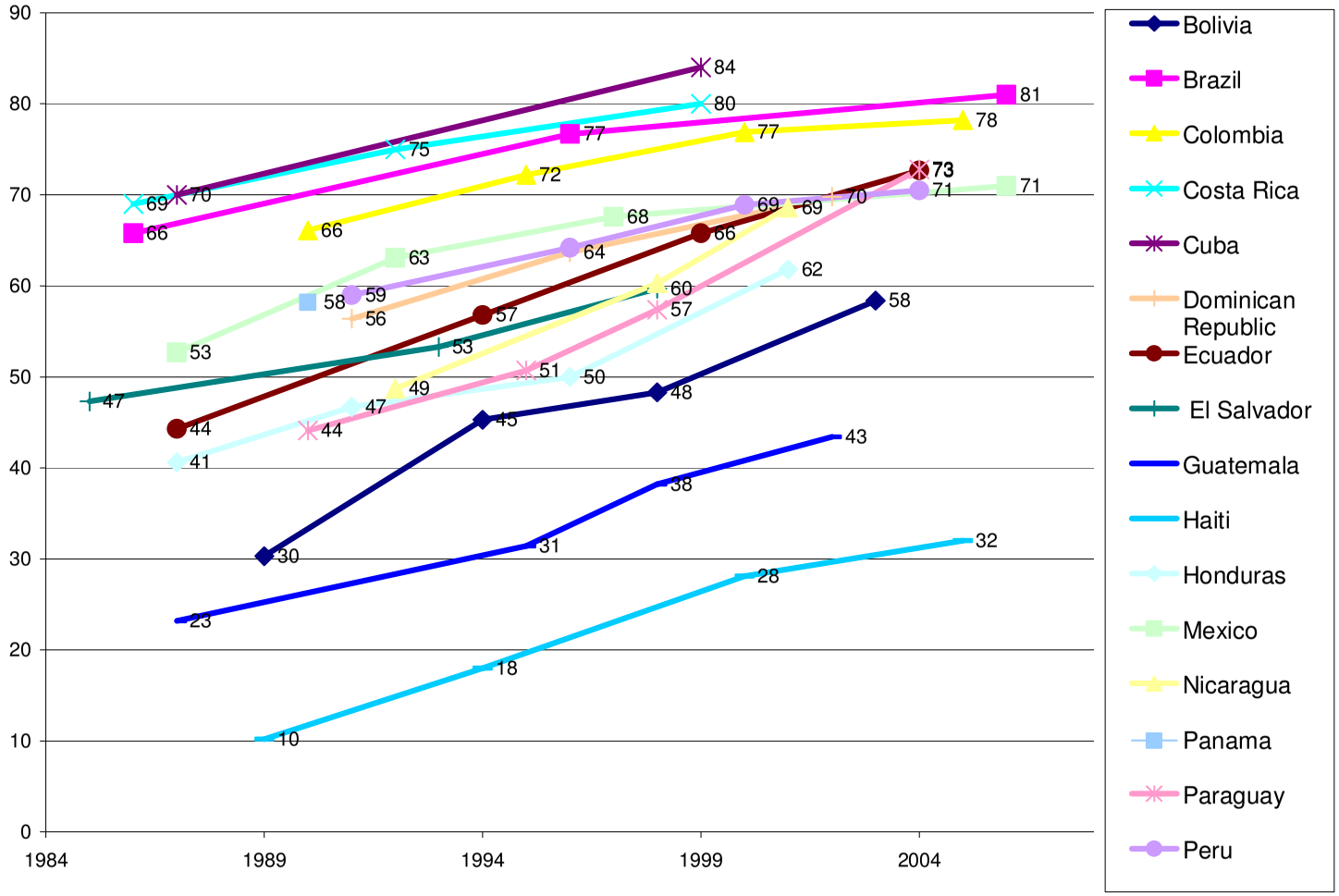
The effectiveness of contraceptives in avoiding pregnancy depends in large part in the method used, the regularity of use and the efficiency of use. Modern methods of contraception are considered to be more effective than traditional methods. For that reason, the MDG indicator of contraceptive prevalence is further disaggregated into the percentage of women married or in-union aged 15 to 49 who are currently using, or whose sexual partner is using, at least one modern method[7] of contraception, regardless of the method used; and the percentage of women married or in-union aged 15 to 49 whose sexual partner is currently using a male condom for contraceptive purposes.[8]

There are a wide variety of method-mixes between countries in the region and within the same country in the LAC region. At the national level, there is usually only one type of contraception that predominates, although the dominate method varies from one country to the next. Amongst these is female sterilization; indeed, recent survey data indicate a significant reliance on female sterilization for contraception particularly in Brazil, Colombia and the Dominican Republic, although there are indications that male sterilization is increasing in at least Brazil and Colombia (Amorim, Alvez and Cavenaghi, 2008). Furthermore, the predominance of traditional methods, particularly in rural areas and among indigenous peoples, is notable in many countries in the region. When considering only modern methods of contraceptives, the contraceptive prevalence rate is notably lower in some countries, particularly Bolivia and Peru, where traditional methods hold significant weight among contraceptive users (see Figure 4).

[7] **Modern methods of contraception** include female and male sterilization, oral hormonal pills, the intra-uterine device (IUD), the male condom, injectables, the implant (including Norplant), vaginal barrier methods, the female condom and emergency contraception. **Traditional methods of contraception** include the rhythm (periodic abstinence), withdrawal, lactational amenorrhea method (LAM) and folk methods."

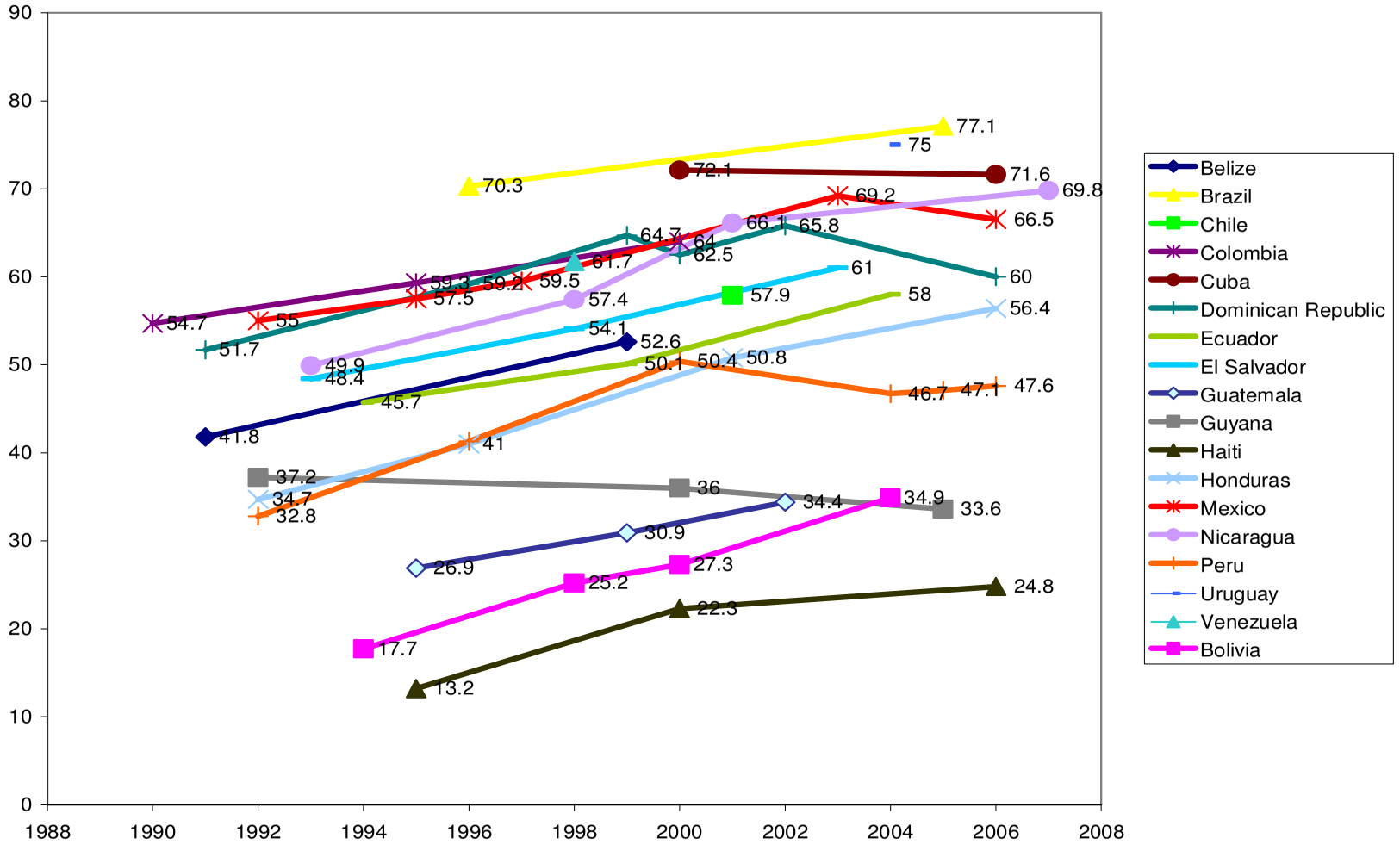
[8]The use of condoms is important not only for pregnancy prevention but also for STI and HIV/AIDS transmission. Accordingly, MDG target 6A—Have halted by 2015 and begun to reverse the spread of HIV/AIDS—includes an additional indicator of condom usage, condom use at last high-risk sex.

Figure 3. Percentage of married or in-union women 15-49 that report current contraceptive usage (any method) by themselves or their partner, 1985-2006.




Source: CELADE/UNFPA. Indicadores para el Seguimiento del Programa de Acción de la CIPD. http://www.eclac.cl/celade/indicadores/default.htm
Note: Figures for Brazil 2006 and Mexico 2006 were taken from the final reports of their health surveys (PNDS and ENADID, respectively).

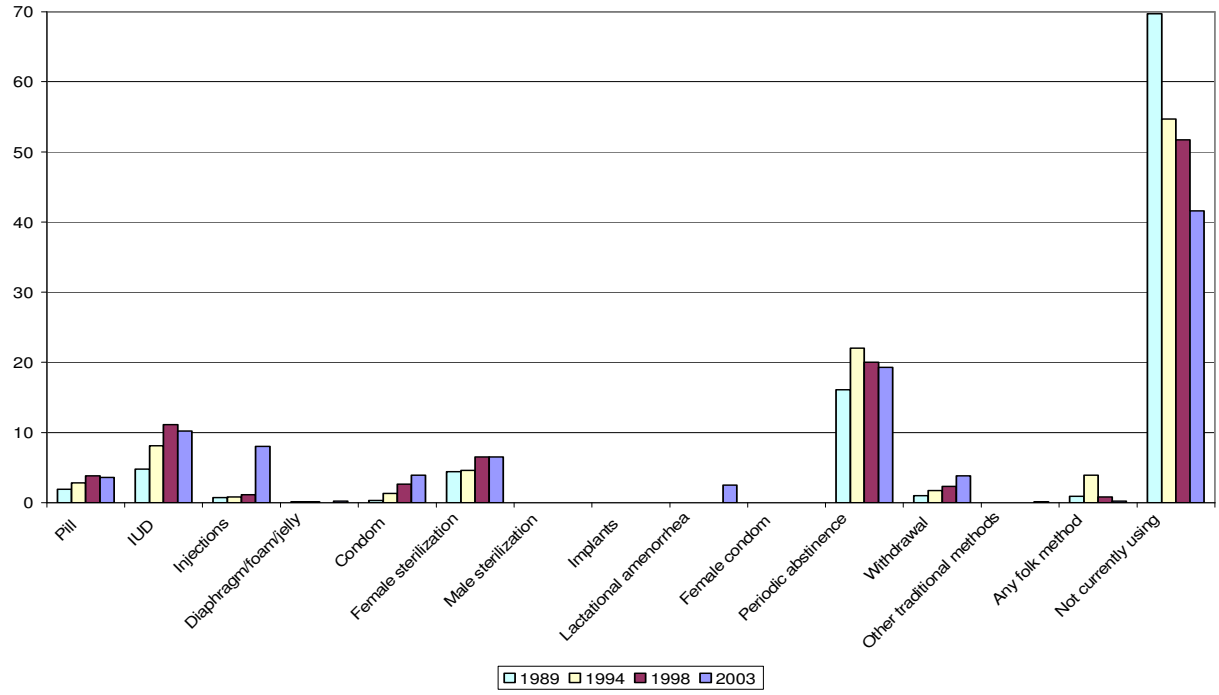
Figure 4. Percentage of married or in-union women 15-49 that report current modern contraceptive usage by themselves or their partner, 1990-2007.




**Source**: The Millennium Development Goals Indicators Database, last accessed 03/01/2009 (http://millenniumindicators.un.org).

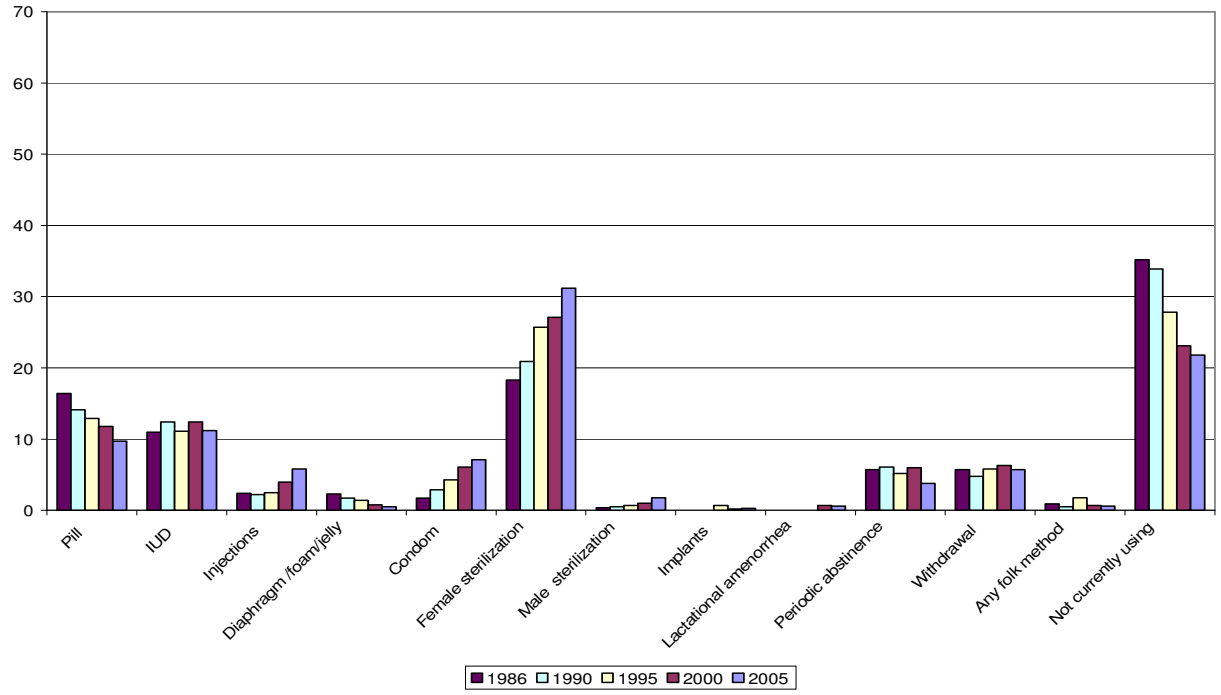
Figures 5, 6, and 7 demonstrate trends in contraceptive use and methods in Bolivia, Colombia and Peru from approximately the mid-1980's to the mid-2000's. The three graphs demonstrate the diversity characteristic of national level differences in the LAC region. For instance, the percentage of married women not using contraception at the time of the survey continues to be relatively high (40 percent) in Bolivia, while lower in Peru (about 30 percent) and even lower in Colombia (a little more than 20 percent). Additionally, the method-mix in these countries presents diverging pictures; in Bolivia the main method of contraception continues to be the rhythm method (traditional), whereas as indicated previously female sterilization dominates contraceptive practices in Colombia and continues to do so over time. Periodic abstinence is also the predominate method of contraception in Peru; the recent increase in the use of injectables is notable both in this country as well as Bolivia.

Figure 5. Current contraceptive use by method among married Bolivian women, 1989-2003.



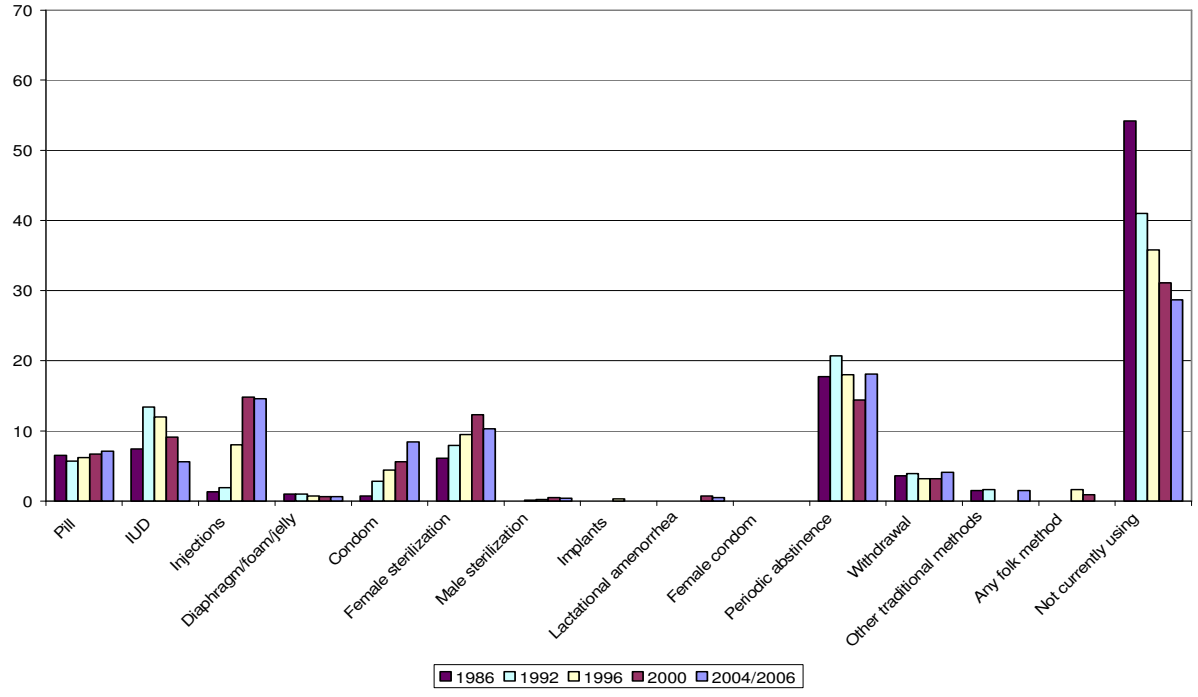

Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com.
Note: Preference was given to national reports when those figures differed from those in STATcompiler.

Figure 6.Current contraceptive use by method among married Colombian women, 1986-2005.




Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com.
Note: Preference was given to national reports when those figures differed from those in STATcompiler.

Figure 7. Current contraceptive use by method among married Peruvian women, 1986-2004/2006




Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com.

Note: Preference was given to national reports when those figures differed from those in STATcompiler.

The diversity in the mix of contraceptive methods used in Latin America and the Caribbean beg the question of what causes these differences. Method choice is influenced by several factors, including sources of contraceptive supply, demand for certain types of methods, and technological advances (Bongaarts and Johansson 2002). It has been argued that peer and community views on contraceptive practices, concerns about the effects on health, and the role of medical professionals in promoting the use of some methods over others, can create situations where the predominant method of contraceptive is not necessarily the "best" or most adequate under a human rights framework (Potter 1999). Accordingly, contraceptive use alone does not necessarily indicate that a woman is utilizing the method most appropriate to her needs, even if it is a modern method.

This point indicates the importance of the source of provision of contraceptive methods in influencing the type of contraceptive used. As Table 4 illustrates, not only does the method of contraception used differ between countries, but the source of the contraception method does as well. These figures demonstrate the importance of the public provision of contraception, although the weight of public provision differs according to method used. This holds true save for the case of Peru, where contraceptive provision is overwhelming public for all methods save the condom.

Table 4. Percent distribution of current users of modern methods, by most recent source of supply, Latin America: 2003-2007.

| | Pill | IUD | Injections | Condom | Female sterilization | Male sterilization | Implants |
|---|---|---|---|---|---|---|---|
| **Bolivia 2003** | | | | | | | |
| Public | 31.2 | 69 | 74.4 | 7.5 | 70.3 | 31.1 | - |
| Private medical | 66.9 | 31 | 24.5 | 83.8 | 27.6 | 68.9 | - |
| Other private | 1 | 0 | 0.9 | 1.6 | 0 | 0 | - |
| Other | 0.2 | 0.3 | 0 | 1.5 | 0.3 | 0 | - |
| DK | 0 | 0.3 | 0 | 4.4 | 0 | 0 | - |
| Missing | 0.7 | 0.3 | 0.1 | 1.1 | 1.8 | 0 | - |
| **Brazil 2006** | | | | | | | |
| Public | 21.3 | 59.4 | 22.6 | 25.1 | 63.6 | 36.4 | - |
| *Convênio/plano de saúde* | 10.7 | 14.2 | 0.8 | 2.0 | 10.7 | 15.7 | - |
| Private medical | 0.7 | 17.9 | 0.4 | 0.1 | 25.3 | 44.7 | - |
| Other private | 0.8 | 3.6 | 74.9 | 66.0 | - | - | - |
| Other | 1.2 | 2.1 | 0.1 | 4.7 | 0.1 | 0.3 | - |
| DK/Missing | 1.7 | 2.8 | 1.3 | 2.0 | 0.3 | 2.9 | - |
| **Colombia 2005** | | | | | | | |
| Public | 15.2 | 48 | 11.2 | 1.2 | 63.2 | 33.4 | 12 |
| Private medical | 81.1 | 51 | 85.7 | 77.4 | 36.7 | 59.1 | 87.9 |
| Other private | 2.8 | 0 | 1.3 | 15.7 | 0 | 0 | 0 |
| Other | 0.9 | 0.4 | 1.7 | 0.9 | 0.1 | 0 | 0.1 |
| DK | 0 | 0 | 0.1 | 4.8 | 0.1 | 7.5 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Dominican Republic 2007** | | | | | | | |
| Public | 30.6 | 55 | 79.6 | 9.2 | 57.6 | 15.1 | 67.3 |
| Private medical | 63.1 | 44 | 17.5 | 58.7 | 39.9 | 43.1 | 27.4 |
| Other private | 0 | 0 | 0 | 18 | 0 | 0 | 0 |
| Other | 0.7 | 0 | 0.3 | 12.6 | 0.4 | 0 | 0 |
| DK | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Missing | 5.6 | 0.7 | 2.6 | 1.5 | 2.1 | 41.8 | 5.3 |
| **Haiti 2005/06** | | | | | | | |
| Public | 21.1 | - | 31.5 | 5.3 | 46.8 | 13.8 | 29.1 |
| Private medical | 41.2 | - | 37.2 | 22.4 | 32.9 | 86.2 | 34.7 |
| Other private | 10.7 | - | 13.1 | 2.1 | 18.5 | 0 | 34.9 |
| Other | 27 | - | 17.8 | 69.9 | 0.3 | 0 | 1.3 |
| Missing | 0 | - | 0.5 | 0.3 | 1.5 | 0 | 0 |
| **Honduras 2005** | | | | | | | |
| Public | 28.3 | 58 | 72.1 | 24.2 | 46.6 | 24.8 | - |
| Private medical | 62.2 | 42 | 26.2 | 63.6 | 52.9 | 66.7 | - |
| Other private | 6.7 | 0 | 0.5 | 6.7 | 0 | 0 | - |
| Other | 2.6 | 0.1 | 1 | 5.5 | 0.4 | 5.2 | - |
| DK | 0 | 0 | 0 | 0 | 0.1 | 3.4 | - |
| Missing | 0.2 | 0.2 | 0.2 | 0 | 0 | 0 | - |
| **Peru 2004/2006[a]** | | | | | | | |
| Public | 80.4 | 80.5 | 91.9 | 29.4 | 87.7 | - | - |
| Private medical | 18.8 | 17.4 | 7.4 | 69.9 | 10.0 | - | - |
| Other private | 0.5 | 0.7 | 0.0 | 0.5 | 0.0 | - | - |
| Other | 0.2 | 1.4 | 0.6 | 0.2 | 2.3 | - | - |
| DK/Missing | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | - | - |

Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com.
Note: Peruvian data is from the DHS final report. Brazilian data is from the PNDS final report.
[a] Data on the 15 weighted cases of male sterilization and 8 weighted cases of Norplant use are omitted.

Finally, contraceptive use among adolescents merits separate reflection. Many times adolescents are limited in their access to reproductive health information and services, thus restricting their contraceptive use. Although contraceptive use among sexually active adolescent females in Latin America and the Caribbean is below that of their counterparts in developed countries, in recent years contraceptive use among 15 to 19 year olds has been increasing and levels of use are above that of other developing regions (among those in unions). This indicates that although adolescents in the region can access to contraceptive use, this use is insufficient, inefficient and/or inconsistent among this group.

In modelling predictors of contraceptive use among adolescents it is difficult to establish causality, due to the fact that many times contraceptive methods are distributed to adolescents after the birth of their first child, such that motherhood actually predicts contraceptive use in many cases. While this practice reduces parity among adolescents, it does not reduce teenage motherhood in and of itself (Rodríguez, 2008).

The difficulties of contraceptive use among adolescents extends to the need to measure contraceptive use among sexually active unmarried women as well. In many countries,

increases in age at first marriage and contraceptive use over time have not been sufficient to compensate for decreases in the age of sexual initiation among young women 15 to 24 years old (Ali and Cleland, 2005). As such, contraceptive use among unmarried sexually active women also impacts the total fertility rate and thus is of policy concern.

Table 5. Percentage of women using any modern method or any traditional or folk method of contraception, by age group and marital status, Latin America: 2003-2007.

| | Currently married | Unmarried sexually active | Currently married | Unmarried sexually active |
|---|---|---|---|---|
| | Any modern method | | Any traditional or folk method | |
| **Bolivia 2003** | | | | |
| 15-19 | 26.3 | 18.7 | 19.3 | 31.0 |
| 20-24 | 36.1 | 44.8 | 19.1 | 23.6 |
| 25-29 | 38.8 | 45.0 | 24.8 | 26.2 |
| 30-34 | 39.7 | - | 25.0 | - |
| 35-39 | 37.1 | - | 27.2 | - |
| 40-44 | 34.7 | - | 23.8 | - |
| 45-49 | 18.8 | - | 19.8 | - |
| **Brazil 2006** | | | | |
| 15-19 | 63.3 | 65.2 | 3 | 1.7 |
| 20-24 | 75.4 | 78.1 | 1.7 | 1.5 |
| 25-29 | 75.8 | 76.3 | 2.9 | 3 |
| 30-34 | 80.6 | 78.7 | 3.9 | 2.6 |
| 35-39 | 82.2 | 80.6 | 3.7 | 0.8 |
| 40-44 | 81.8 | 76.3 | 4.6 | 2.5 |
| 45-49 | 70.2 | 57.5 | 4.3 | 0.2 |
| **Colombia 2005** | | | | |
| 15-19 | 47.1 | 66.1 | 10.0 | 13.3 |
| 20-24 | 61.3 | 66.5 | 10.5 | 14.0 |
| 25-29 | 67.5 | 70.5 | 11.4 | 10.5 |
| 30-34 | 72.1 | - | 9.4 | - |
| 35-39 | 74.2 | - | 10.1 | - |
| 40-44 | 73.6 | - | 9.8 | - |
| 45-49 | 64.2 | - | 10.1 | - |
| **Dominican Republic 2007** | | | | |
| 15-19 | 43.8 | 44.3 | 2.0 | 5.1 |
| 20-24 | 56.2 | 54.0 | 4.1 | 5.1 |
| 25-29 | 63.9 | 63.4 | 3.6 | 4.2 |
| 30-34 | 73.8 | - | 2.5 | - |
| 35-39 | 80.4 | - | 2.9 | - |
| 40-44 | 79.8 | - | 2.4 | - |
| 45-49 | 77.5 | - | 1.0 | - |
| **Haiti 2005/06** | | | | |
| 15-19 | 20.2 | 29.4 | 8.3 | 4.2 |
| 20-24 | 26.2 | 27.8 | 6.8 | 12.1 |
| 25-29 | 29.2 | 38.8 | 5.7 | 10.7 |
| 30-34 | 29.9 | - | 6.3 | - |
| 35-39 | 23.2 | - | 9.1 | - |

| | | | | |
|---|---|---|---|---|
| 40-44 | 22.1 | - | 8.4 | - |
| 45-49 | 15.8 | - | 7.3 | - |
| **Honduras 2005** | | | | |
| 15-19 | 58.7 | 39.9 | 9.7 | 6.0 |
| 20-24 | 58.8 | 51.3 | 10.2 | 7.8 |
| 25-29 | 65.3 | 56.6 | 8.2 | 8.8 |
| 30-34 | 63.4 | - | 9.4 | - |
| 35-39 | 62.3 | - | 9.6 | - |
| 40-44 | 61.8 | - | 11.2 | - |
| 45-49 | 49.5 | - | 9.4 | - |
| **Peru 2004/2006** | | | | |
| 15-19 | 43.6 | 51.9 | 15.1 | 37.7 |
| 20-24 | 50.4 | 57.6 | 19.0 | 30.2 |
| 25-29 | 51.4 | 63.1 | 23.2 | 27.1 |
| 30-34 | 47.9 | 57.7 | 26.2 | 23.8 |
| 35-39 | 52.9 | 60.1 | 27.3 | 26.6 |
| 40-44 | 47.0 | 52.1 | 26.2 | 24.1 |
| 45-49 | 35.3 | - | 18.8 | - |

Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com. Peruvian data is from the DHS final report. Brazilian data is from the PNDS final report.

Indeed, Table 5 illustrates that the contraceptive prevalence rate and contraceptive method vary significantly by age and marital status. In point of fact, although levels of contraceptive usage among unmarried women vary across countries, they do not always correspond to prevalence rates among their married national counterparts. The same holds true for the method-mix among unmarried women. Most notable among the methods used by unmarried women is the prevalence of the male condom (results not shown), of which married or partnered women report low levels of usage.

In sum, the three indicators of contraceptive prevalence—total use, use of modern methods, and use of condoms among married women or those in union, would benefit significantly if they were calculated separately for unmarried sexually active women, as well as for sexually active adolescents.

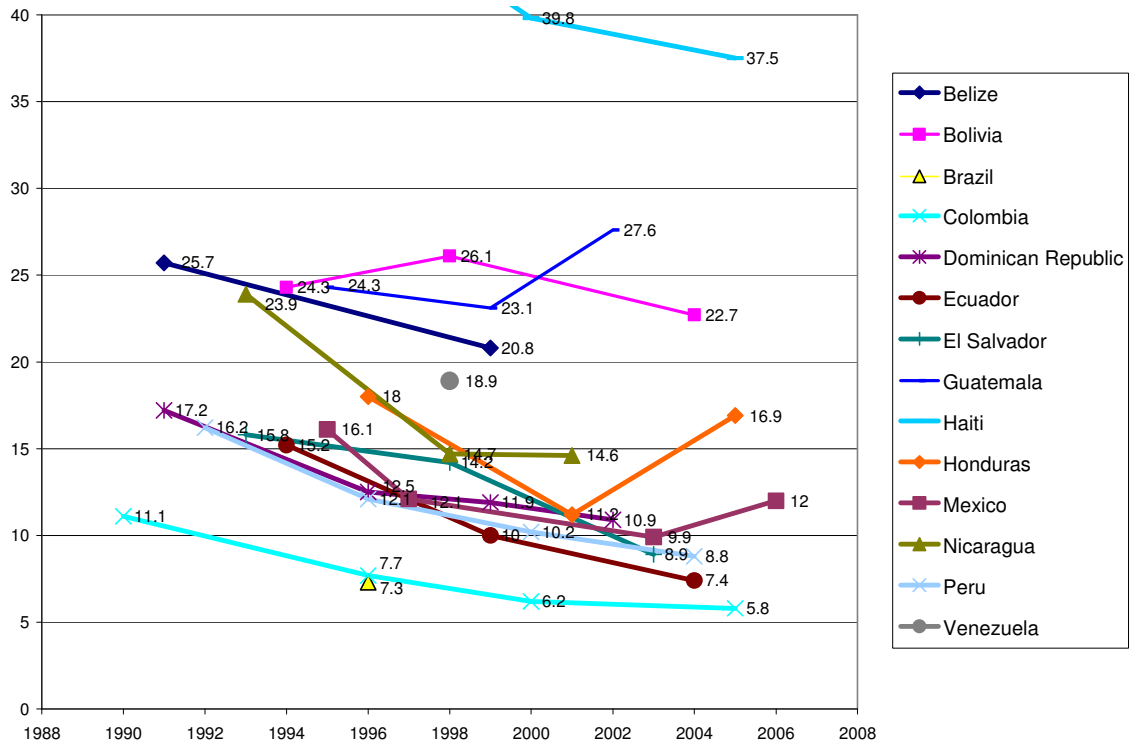
*Unmet need for family planning*

The official calculation of the indicator defines women (who are married or in a consensual union) as having an unmet need when they are pregnant or amenorrheic and whose pregnancies were unwanted or mistimed; and fecund women who desire to either stop childbearing or postpone their next birth for at least two years, or who are undecided about whether or when to have another child, and who are not using a contraceptive method, as a percentage of all women married or unioned. The unmet need for family planning indicator is divided into three components: the total unmet need, unmet need for spacing births, and unmet need for limiting births.

Eloquent arguments have been made in favour of included in the unmet need for family planning in indicators of access to reproductive health. The unmet need for family

planning is a complementary indicator to the use of contraceptives—the contraceptive prevalence rate provides the context in which unmet need is situated. Higher contraceptive prevalence rates may or may not reflect that individuals and couples are freely deciding the number and spacing of their children, because it does not include a dimension of fertility preferences. As such, as with the adolescent fertility rate, within a human rights framework it is unreasonable to set a target for contraceptive use, given that the emphasis should be on whether or not individuals and couples are meeting their fertility goals. On the other hand, the unmet need for family planning does exactly this: it takes into account fertility intentions and desires and thus provides a measure of whether or not women are meeting their fertility preferences (Bernstein and Eduard, 2007). Thus, the sole provision of contraception and family planning services without taking into consideration clients' fertility preferences is neither desirable nor accurate within a human rights framework.

Figure 8. Unmet need for contraceptives among married or in-union women, Latin America: 1990-2006




**Source**: The Millennium Development Goals Indicators Database, last accessed 03/01/2009 (http://millenniumindicators.un.org).

As Haiti registered the lowest contraceptive usage rate in the region, it exhibits the highest percentage of unmet need for family planning, much more so than Guatemala and Bolivia. And as opposed to contraceptive prevalence rates in the region, which present a singular increasing trend, the trends in unmet need for family planning are mixed, such that in some countries there are recent upswings in unmet need, among them Guatemala, Honduras and Mexico. The disparity between the trends in contraceptive use (in general, monotonically increasing) and unmet need for contraception (decreasing, but with some increases) highlights the importance of evaluating these indicators together.

Table 6. Contraceptive prevalence rate, unmet need for contraceptives among married or in-union women—total, for spacing births, and for limiting births—Latin America: circa 2005.

| Country and year | **Contraceptive prevalence rate** | **Unmet need - space** | **Unmet need - limit** | **Unmet need - total** |
|---|---|---|---|---|
| **Bolivia 2003** | | | | |
| 15-19 | 45.6 | 22.0 | 11.1 | 33.0 |
| 20-24 | 55.2 | 15.3 | 14.9 | 30.1 |
| 25-29 | 63.6 | 8.1 | 16.1 | 24.2 |
| 30-34 | 64.7 | 4.4 | 19.0 | 23.4 |
| 35-39 | 64.2 | 1.7 | 19.4 | 21.1 |
| 40-44 | 58.4 | 1.1 | 18.6 | 19.7 |
| 45-49 | 38.6 | 0.4 | 10.8 | 11.2 |
| **Colombia 2005** | | | | |
| 15-19 | 57.2 | 12.6 | 3.7 | 16.2 |
| 20-24 | 71.7 | 7.5 | 3.0 | 10.5 |
| 25-29 | 78.0 | 3.0 | 3.4 | 6.4 |
| 30-34 | 81.5 | 1.2 | 3.6 | 4.8 |
| 35-39 | 84.3 | 0.7 | 2.7 | 3.4 |
| 40-44 | 83.5 | 0.2 | 3.8 | 3.9 |
| 45-49 | 74.3 | 0.1 | 2.8 | 2.9 |
| **Dominican Republic 2007** | | | | |
| 15-19 | 45.8 | 25.9 | 2.1 | 28 |
| 20-24 | 60.4 | 16.2 | 2.6 | 18.8 |
| 25-29 | 67.7 | 10.7 | 4.9 | 15.6 |
| 30-34 | 76.3 | 4.1 | 5.2 | 9.3 |
| 35-39 | 83.3 | 1.7 | 4.5 | 6.2 |
| 40-44 | 82.2 | 0.2 | 5.8 | 6.0 |
| 45-49 | 78.5 | 0.6 | 3.8 | 4.5 |
| **Haiti 2005/06** | | | | |
| 15-19 | 9.8 | 49.6 | 2.8 | 52.4 |
| 20-24 | 25.0 | 34.8 | 6.0 | 40.8 |
| 25-29 | 30.9 | 20.5 | 16.4 | 36.8 |
| 30-34 | 31.1 | 12.3 | 25.5 | 37.7 |
| 35-39 | 29.0 | 6.5 | 32.8 | 39.4 |
| 40-44 | 26.0 | 2.2 | 35.6 | 37.8 |
| 45-49 | 19.5 | 0.6 | 20.8 | 21.4 |
| **Honduras 2005** | | | | |
| 15-19 | 45.9 | 21.6 | 4.2 | 25.8 |
| 20-24 | 59.1 | 16.5 | 6.0 | 22.5 |
| 25-29 | 64.9 | 10.7 | 7.9 | 18.6 |
| 30-34 | 72.8 | 6.2 | 8.8 | 15 |
| 35-39 | 71.9 | 3.0 | 12.3 | 15.3 |
| 40-44 | 73.0 | 0.8 | 9.9 | 10.7 |
| 45-49 | 58.8 | 0.1 | 9.1 | 9.2 |
| **Peru 2004/2006** | | | | |
| 15-19 | 58.7 | 13.9 | 1.6 | 15.4 |
| 20-24 | 69.4 | 7.5 | 3.2 | 10.7 |

| | | | | |
|---|---|---|---|---|
| 25-29 | 74.6 | 4.6 | 4.7 | 9.3 |
| 30-34 | 74.1 | 3.3 | 5.9 | 9.2 |
| 35-39 | 80.3 | 1.0 | 6.9 | 7.9 |
| 40-44 | 73.3 | 0.3 | 5.5 | 5.8 |
| 45-49 | 54.1 | 0.0 | 4.2 | 4.2 |

Source: Demographic and Health Surveys, Macro International Inc, online: www.measuredhs.com.
Note: Peruvian data is from the DHS final report. Brazilian data is from the PNDS final report.

General trends indicate that at younger ages there is greater unmet need for family planning services to space births, but as women age the need for family planning switches to that for limiting additional births (see Table 6). However, taken together, greatest unmet need for family planning is expressed by the youngest age groups.

As with contraceptive prevalence, the unmet need for family planning is traditionally calculated only for women in marriages or unions. The inclusion of only women in marriages or union in the official indicator of unmet need again excludes women who do need and use contraceptive and is an important area for monitoring and programme intervention, especially for countries such as Chile where early childbearing is increasingly non-marital.

Again, unmet need for family planning among adolescents requires a separate reflection, given the importance of this aspect of reproductive health in Latin America and the Caribbean. As mentioned previously, the calculation of the unmet need for family planning includes retrospective information—whether the last pregnancy was intended, mistimed, or unwanted—which can be problematic. This holds particularly true in the case of adolescents in Latin America, where a first births are highly valued and are usually met by joy (Guzmán et al. 2001), thus decreasing reports of mistimed or unwanted births.

*Antenatal care coverage (at least one visit and at least four visits)*

The indicator of prenatal care included in the new MDG goal on universal access to reproductive health measures the proportion of births with at least one antenatal visit and at least four antenatal visits (the latter is considered adequate). This indicator is also in line with the ICPD PoA, which not only refers to universal access to reproductive health as access to family planning, but also, "the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant," (ICPD 1994). Clearly the use of prenatal care is an outcome indicator of this latter right; it has been promoted as an essential mechanism for ensuring the health of both mother and child.

This point has held true in many countries which have met this target and have low rates of maternal and infant mortality to prove it. In general, rates of prenatal care coverage are high in countries of Latin America and the Caribbean (see Table 7). However, paradoxically there are cases where high rates of medical check-ups during pregnancy co-exist with high levels of maternal and infant mortality and morbidity. Often cited as an example of this is the case of the Dominican Republic, where nearly universal coverage

of antenatal care coexist with relatively high levels of infant mortality. As such, it is indispensible to interpret this indicator within the context of reproductive health in the country and not to evaluate it on its own.

Table 7. Number of antenatal care visits and estimated infant mortality rates, based on births during the 5 years preceding the survey, countries with a DHS survey in the last 10 years: 1998-2007.

| Country and Year | Infant mortality (1q0) | Number of antenatal care visits | | | |
|---|---|---|---|---|---|
| | | 0 | 1 | 2-3 | 4 |
| **Bolivia 2003** | 53.6 | 21.4 | 4.9 | 15.8 | 57.9 |
| **Colombia 2005** | 18.7 | 7.8 | 1.4 | 7.7 | 83.1 |
| **Dominican Republic 2007** | 32.1 | 2.5 | 0.5 | 2.5 | 94.5 |
| **Guatemala 1998/99** | 45.1 | 14.7 | 3.0 | 14.7 | 67.6 |
| **Haiti 2005/06** | 57.3 | 14.5 | 4.9 | 26.8 | 53.8 |
| **Honduras 2005** | 23.4 | 8.2 | 2.0 | 9.0 | 80.8 |
| **Nicaragua 2001** | 31.3 | 14.8 | 2.7 | 10.9 | 71.6 |
| **Peru 2000** | 33.3 | 15.9 | 3.1 | 12.5 | 68.5 |

Source: Demographic and Health Surveys, Macro International Inc, online: www.measuredhs.com.

## Inequality as a barrier to universal access to reproductive health in Latin America and the Caribbean

In Latin America and the Caribbean national averages hide very different realities, the product of the sharp socio-economic inequality that characterizes the region. Sexual and reproductive health in the region is no exception to this inequality. In fact, the four official MDG indicators of universal access to reproductive health demonstrate marked disparities not only by age groups as seen in the access to reproductive health by adolescents, but also socio-economic groups, geographic location, ethnic groups, and gender. Indeed, this reality has not gone unnoticed among SRH researchers, who have made inequality one of the central objectives of study and advocacy. In fact, the Latin American and Caribbean Regional Plan of Action on Population and Development (ECLAC, 1996) acknowledged among its specific objectives and recommendations for actions the need for countries in the region to address the difficulties that some groups have to accessing reproductive health services due to their geographical location or social condition. In this section we review some aspects of inequality that are most relevant to the four indicators of the MDG target on universal access to reproductive health. Much of the information that follows is taken from the population chapter of the 2005 *Social Panorama of Latin America*, the annual flagship publication of ECLAC.

Although many researchers argue that the concern regarding **adolescent fertility** on the part of national governments and international bodies in the region is unwarranted given data constraints that preclude the generation of conclusive evidence on the causal relationship between adolescent motherhood and negative life outcomes, several researchers have pointed to the fact that the fertility rate among 15-19 year olds is

undoubtedly highly correlated with an adolescent's educational level and social standing, and has serious deleterious effects not only on the well-being of the adolescent but also on other members of the adolescent's household, thus making it a cause for concern. Early reproduction has historically been associated with poverty and low levels of education, and as such has been considered as one mechanism of the intergenerational transfer of poverty (Rodríguez and Hopenhayn, 2007). The most recent results from the DHS in the region suggest that this relationship persists, given that girls with low education continue to exhibit much higher probabilities of becoming mothers during adolescence. This relationship exhibits a certain grade of endogeneity—educational trajectories can be cut short by adolescent maternity and thus be the cause of low levels of educational achievement—as such complicating the establishment of causal relationships between education levels and adolescent childbearing. Although the magnitude of the relationship between education and early fertility can change over time, the direction of the correlation is always the same, in that more education implies a lower likelihood of teenage pregnancy.

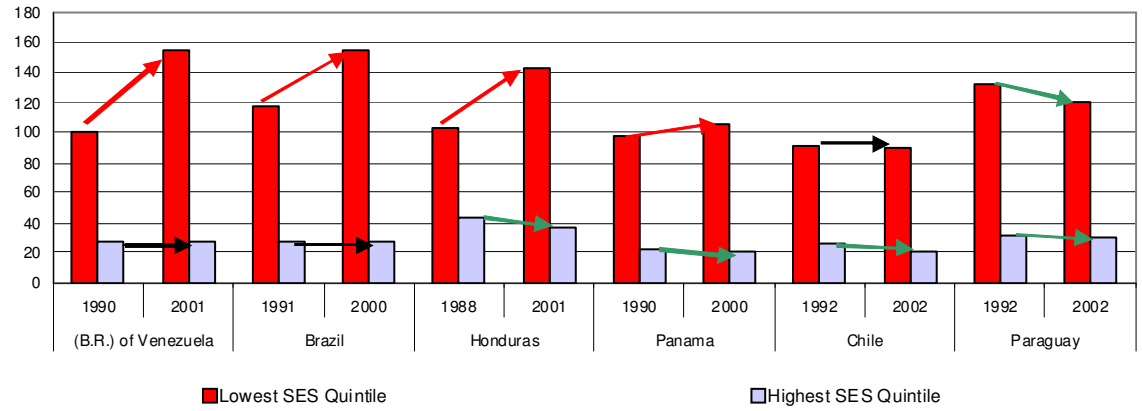
However, improvement in schooling levels across the LAC region has modified the relationship between education and adolescent fertility. No longer are teen mothers those girls that have no formal education as was true in the past. Instead, adolescent mothers tend to complete some years of schooling before dropping out. This has serious implications for the historical role of schools as protective factors against early childbearing; schools' protective effects against early sexual initiation and childbearing begin to erode because of the devaluation of education at later ages. Both factors are key to public policies and indicate a specific area for adolescent pregnancy prevention that involves not only health but also educational institutions.

It is clear that improving educational levels have tended to reduce schooling disparities within countries; that currently almost every girl and boy in the LAC region finishes primary school is eloquent evidence in this respect. This has not put an end to all educational disparities, however; now these disparities are expressed at advanced levels of schooling—such as university or graduate school enrolment—as well as in the quality of education available at all levels of schooling. Thus, increases in education at the population level clearly have not done away with social inequalities but instead changed the way in which they are expressed. Accordingly, the traditional disaggregation employed in surveys in the region (no formal education, primary education, secondary and higher education) is increasingly of less utility.

Given the evolution of the characteristics of educational attainment in the region, the use of this variable to measure the changing relationship between social inequality and adolescent maternity is inappropriate. This problem has been described in a recent publication (ECLAC, 2005), which concluded that the only way to conduct a rigorous evaluation of the evolution of social inequality in early childbearing is to disaggregate indicators according to quartiles of some quantitative socio-economic variable. In this line, Rodríguez and Hopenhayn (2007) present an exercise conducted by CELADE with select countries in the region. The results, as seen in Figure 9, indicate that increases in

adolescent fertility have been primarily driven by an increase in fertility of the poorest groups.

Figure 9. Adolescent fertility rate (per 1,000) for minimum and maximum socio-economic groups in urban areas, Latin America: 1990 and 2000 rounds of censuses.




Source: Rodríguez and Hopenhayn (2007).

Additionally, Table 8 reveals that these inequalities in reproduction persist in data from the most recent surveys in the region. In comparing inequalities in the total fertility rate and the adolescent fertility rate, recent DHS surveys confirm the findings of the study by ECLAC (2005), done with indirect census estimates: social inequalities are more pronounced in the case of early childbearing than in total fertility, which confirms the importance of adolescent fertility as a topic of SRH in the region (Figure 10).

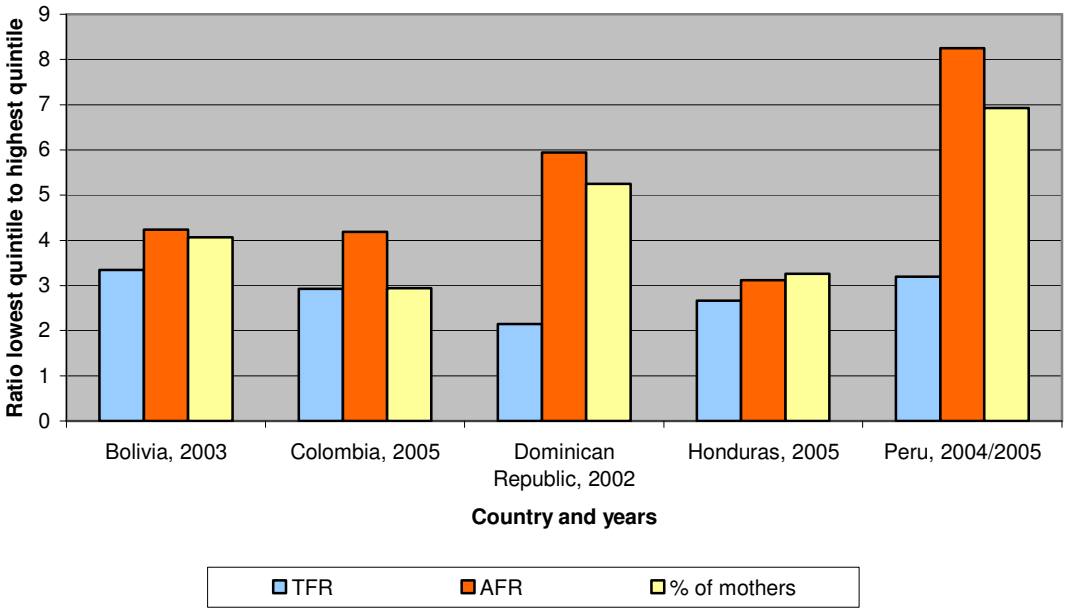
Table 8. Indicators of reproductive behaviour among adolescents according to socio-economic quintile, select countries of Latin America: circa 2000.

| | Quintile | AFR | TFR | Percent of adolescents who are mothers |
|---|---|---|---|---|
| BOLIVIA, 2003 | 1 | 161 | 6.7 | 29.3 |
| | 2 | 128 | 5.0 | 21.6 |
| | 3 | 81 | 4.0 | 14.9 |
| | 4 | 73 | 2.9 | 13.7 |
| | 5 | 38 | 2.0 | 7.2 |
| | Total | 84 | 3.8 | 15.7 |
| COLOMBIA, 2005 | 1 | 155 | 4.1 | 31.5 |
| | 2 | 118 | 2.8 | 25.6 |
| | 3 | 97 | 2.4 | 22.1 |
| | 4 | 61 | 1.8 | 14.4 |
| | 5 | 37 | 1.4 | 10.7 |
| | Total | 90 | 2.4 | 20.5 |
| HONDURAS, 2005 | 1 | 156 | 5.6 | 31.3 |
| | 2 | 129 | 3.8 | 23.7 |
| | 3 | 120 | 3.3 | 27.2 |
| | 4 | 84 | 2.6 | 19.6 |
| | 5 | 50 | 2.1 | 9.6 |
| | Total | 102 | 3.3 | 21.5 |

| | | | | |
|---|---|---|---|---|
| PERU, 2004-05 | 1 | 132 | 4.8 | 29.1 |
| | 2 | 87 | 3.4 | 18.4 |
| | 3 | 67 | 2.2 | 12.5 |
| | 4 | 41 | 2.1 | 8.3 |
| | 5 | 16 | 1.5 | 4.2 |
| | Total | 59 | 2.5 | 12.7 |
| DOMINICAN REPUBLIC, 2002 | 1 | 214 | 4.5 | 41.5 |
| | 2 | 162 | 3.5 | 32.6 |
| | 3 | 117 | 2.9 | 25.1 |
| | 4 | 87 | 2.4 | 15.6 |
| | 5 | 36 | 2.1 | 7.9 |
| | Total | 116 | 3.0 | 23.3 |

Source: Demographic and Health Surveys, Macro International Inc, online: www.measuredhs.com.
Note: Data from Peru 2004/2005 also includes some cases from 2003.

Figure 10. Inequality in reproductive behaviour (TFR, AFR and percentage of adolescents who are mothers) by ratio of poorest quintile to richest quintiles: circa 2005.




Source: Demographic and Health Surveys, Macro International Inc, online: www.measuredhs.com.
Note: Data from Peru 2004/2005 also includes some cases from 2003.

One aspect of inequality that has acquired increasing visibility in Latin America is that according to ethnicity, due to the disadvantaged situation of indigenous peoples and Afro-descendent populations. Recent studies have revealed that these inequalities are manifested in fertility trends as well (ECLAC, 2007). In particular, levels of adolescent and total fertility among these groups are typically higher compared to the rest of the population. A recent study which for the first time processed census data available at CELADE according to ethnic group identification confirms this disparity (Table 9). In effect, almost without exception indigenous and Afro-descendent girls present a higher percentage of those who are mothers than in the rest of the adolescent population. Some cases are notable for their high levels of early motherhood, in particular adolescent girls belonging to indigenous peoples in Panama and Paraguay, where at least one out of every four girls ages 15 to 17 has already given birth to at least one child.

The latter finding reveals a dimension of adolescent maternity that is by definition excluded from the MDG goals. It deals with fertility at ages earlier than 15 years old, particularly worrying given the biomedical and social risks that it entails. The official MDG indicator excludes this group, every time that the AFR is calculated for only the group between 15 and 19 years of age. And even if births to mothers younger than 15 are included in the numerator, this group is on the margin of any monitoring or analysis. Although it is a relatively rare event, the rates for indigenous peoples reveal that for some groups within Latin American countries very early maternity is more frequent than expected.

Regarding ethnic differences in adolescent fertility a couple of final points can be made. The first is in regards to the diversity among the indigenous peoples of the region, which stems from at least two sources. On one hand part of it is due to the socio-economic heterogeneity among this group, a clear example of this being an increasing proportion of indigenous peoples that reside in urban areas, which exhibit different fertility behaviours compared to their rural counterparts. On the other hand are the cultural specificities of each indigenous tribe. Although it is true that on average indigenous peoples tend towards early marriage, there are some tribes that do not, which leads to them to have levels of adolescent fertility that are lower than national averages (although their completed fertility ends up being higher), as happens with the Aymara, the dominant ethnic group in Bolivia (see Table 8). Another specific case is in Panama, where the two dominant ethnic groups—Ngöbes and Kunas—exhibit very different reproductive behaviours, also due to different marital customs that influence the age at first marriage. To be sure, recognizing this diversity among indigenous groups does not deny the disadvantaged condition that indigenous groups face in general; however, these specificities are relevant to the design of public policy and programmes in the realm of the sexual and reproductive health of indigenous and Afro-descendent persons.

The second point refers to the cultural context of these behaviours that can be different from the urban or *mestizo* world. In this sense, the same parameters to evaluate fertility behaviours of indigenous peoples cannot be applied. Cultural context is important, and for many indigenous peoples, early motherhood is part of a normal transition to adulthood. In sum, this recognition should not relegate ancestral practices to an ad hoc explanation of early childbearing among indigenous women; instead these behaviours can be challenged by adolescents themselves depends on their decision to follow traditional custom. Whatever the case may be, in this area it is clear that conflicts of interest and collisions of human rights can arise. In particular, "collective rights" which increasingly figure into advances in international jurisprudence and are clearly related to indigenous peoples, can butt heads with an individual's right to freely decide the number, spacing and timing of their children, in which case the appropriate response according to international agreements and the spirit of existing laws is to privilege the right of the individual.

Table 9. Percentage of adolescent girls 15-17 and 18-19 who are mothers, by ethnic identification: circa 2000.

| Country | Ethnic group | Age |
|---|---|---|

| | | 15-17 | 18-19 |
|---|---|---|---|
| Argentina | Indigenous | 10.4 | 27.3 |
| | Afro-descendent | - | - |
| | Other | 6.7 | 19.9 |
| Bolivia | Indigenous | 6.0 | 25.2 |
| | Afro-descendent | - | - |
| | Other | 6.5 | 24.2 |
| Brazil | Indigenous | 17.9 | 41.2 |
| | Afro-descendent | 9.7 | 28.2 |
| | Other | 6.9 | 20.9 |
| Chile | Indigenous | 7.7 | 21.9 |
| | Afro-descendent | - | - |
| | Other | 7.1 | 20.4 |
| Costa Rica | Indigenous | 19.0 | 49.1 |
| | Afro-descendent | 9.6 | 27.7 |
| | Other | 6.4 | 23.1 |
| Ecuador | Indigenous | 7.6 | 31.0 |
| | Afro-descendent | 13.0 | 37.0 |
| | Other | 8.6 | 27.3 |
| Guatemala | Indigenous | 8.2 | 29.8 |
| | Afro-descendent | - | - |
| | Other | 7.6 | 26.2 |
| Honduras | Indigenous | 8.7 | 34.4 |
| | Afro-descendent | 7.2 | 26.6 |
| | Other | 9.3 | 32.2 |
| Mexico | Indigenous | 8.5 | 30.3 |
| | Afro-descendent | - | - |
| | Other | 5.5 | 21.3 |
| Nicaragua | Indigenous | 13.6 | 38.7 |
| | Afro-descendent | 8.9 | 30.9 |
| | Costal *mestizos* | 18.7 | 47.2 |
| | Other | 11.0 | 33.3 |
| Panama | Indigenous | 24.8 | 57.3 |
| | Afro-descendent | - | - |
| | Other | 7.8 | 25.8 |
| Paraguay | Indigenous | 31.3 | 66.5 |
| | Afro-descendent | - | - |
| | Other | 5.0 | 21.0 |
| B.R. Venezuela | Indigenous | 13.9 | 37.6 |
| | Afro-descendent | - | - |
| | Other | 7.9 | 25.4 |

Source: 1990 and 2000 round of census data.

Although the adolescent fertility rate (AFR) is one of four indicators of progress and achievement for the MDG target on universal access to reproductive health, for policy purposes the key inputs that affect birth rates are the proximate determinants of adolescent fertility, which are accordingly influenced by socio-economic and cultural characteristics.

Two proximate determinants emerge as principal in effecting the AFR, and both exhibit marked differences according to socio-economic status. One is the exposure to the risk of pregnancy through sexual practices, in particular the age of sexual initiation, which has become of increasing importance given the declining age of first menarche. On the other hand is the use of contraceptives. The examination of both factors reveals that adolescents with fewer resources face an "accumulation of risk," in that they register both earlier sexual initiation and lower levels of contraceptive use (although the latter is only apparent when using appropriate indicators). Table 10, which disaggregates recent DHS data by wealth quintiles, serves as empirical proof that lower socio-economic status is related to earlier sexual initiation and marriage.

Notwithstanding, the use of contraceptives requires a more careful examination given that at first glace, results may appear to be counterintuitive. In fact, if the MDG indicator of contraceptive use is used (the prevalence of use among women in unions[9]), at least two countries do not exhibit expected relationship (higher socio-economic status equals higher usage). This apparently is due to the elevated rates of usage among poor adolescents that are already mothers, as mentioned earlier in this paper. In this sense, an indicator that would be of very little use in the case of the rest of age groups is better at capturing inequalities in the case of adolescents. This would be the indicator of "use of contraceptive at any time," which indicates the proportion of "never-users" among adolescents who have already begun to participate in sexual activity, that is to say, exposed to the risk of pregnancy. These tend to be lower in the two bottom quintiles of wealth.

In conclusion, while sharp inequality in two key dimensions of adolescent reproduction (sexual initiation and use of contraceptives) persists, it is highly likely that the reproductive trajectory, and in general, life trajectory of the adolescents leads to the persistence of real socio-economic differences, through the mechanisms of the intergeneration reproduction of poverty associated with teenage motherhood. This contributes to the reproduction of socio-economic inequality, as well as the intensification of the unequal exertion of rights by future generations.

Table 10. Indicators of reproductive behaviour among adolescents according to wealth quintiles, Latin America: circa 2000.

| QUIN-TIL | TGF | AFR | % MOTH HERS | % of 15-19 that had intercourse before their 15th birthday | % of 18-19 that had intercourse before their 18th birthday | % of 15-19 that entered into a union before their 15th birthday | % of 18-19 that entered into a union before their 18th birthday | SEXUALLY INITIATED 15 – 19 YEAR OLDS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | % that used modern contraception at any time | % that currently use modern contraceptive |
| Bolivia, 2003 | | | | | | | | | |
| 1 | 6.7 | 161 | 29.3 | 11.0 | 46.2 | 5.4 | 28.1 | 22.5 | 13.1 |
| 2 | 5.0 | 128 | 21.6 | 9.1 | 56.7 | 5.2 | 33.0 | 29.7 | 14.0 |
| 3 | 4.0 | 81 | 14.9 | 4.9 | 33.1 | 2.4 | 16.4 | 33.6 | 17.3 |
| 4 | 2.9 | 73 | 13.7 | 4.1 | 36.7 | 1.1 | 14.1 | 44.2 | 16.9 |

[9] In the column, "sexually initiated 15-19 year olds" in Table 10.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 2.0 | 38 | 7.2 | 2.3 | 26.3 | 0.3 | 4.6 | 48.6 | 19.0 |
| Total | 3.8 | 84 | 15.7 | 5.6 | 37.3 | 2.4 | 16.4 | 36.1 | 16.1 |
| Colombia, 2005 | | | | | | | | | |
| 1 | 4.1 | 155 | 31.5 | 21.2 | 63.3 | 10.8 | 39.9 | 65.3 | 28.9 |
| 2 | 2.8 | 118 | 25.6 | 16.4 | 59.3 | 6.1 | 31.6 | 79.1 | 37.2 |
| 3 | 2.4 | 97 | 22.1 | 13.6 | 59.7 | 3.7 | 28.1 | 83.1 | 40.9 |
| 4 | 1.8 | 61 | 14.4 | 11.5 | 53.5 | 2.1 | 11.7 | 80.6 | 39.4 |
| 5 | 1.4 | 37 | 10.7 | 6.9 | 43.8 | 0.8 | 8.8 | 88.1 | 43.4 |
| Total | 2.4 | 90 | 20.5 | 13.7 | 55.3 | 4.5 | 22.9 | 79.1 | 37.8 |
| Dominican Republic, 2002 | | | | | | | | | |
| 1 | 4.5 | 214 | 41.5 | 23.0 | 65.8 | 20.0 | 57.7 | 63.9 | 26.5 |
| 2 | 3.5 | 162 | 32.6 | 18.8 | 59.6 | 15.1 | 54.1 | 69.2 | 34.5 |
| 3 | 2.9 | 117 | 25.1 | 13.5 | 51.0 | 12.2 | 40.3 | 69.5 | 33.4 |
| 4 | 2.4 | 87 | 15.6 | 8.3 | 37.0 | 5.7 | 27.1 | 69.8 | 28.2 |
| 5 | 2.1 | 36 | 7.9 | 3.7 | 25.9 | 2.4 | 15.4 | 72.8 | 22.8 |
| Total | 3.0 | 116 | 23.3 | 12.7 | 46.2 | 10.4 | 37.1 | 68.6 | 29.8 |
| Honduras, 2005 | | | | | | | | | |
| 1 | 5.6 | 156 | 31.3 | 15.8 | 49.1 | 12.8 | 40.1 | 44.0 | 25.1 |
| 2 | 3.8 | 129 | 23.7 | 10.4 | 46.6 | 8.3 | 38.1 | 54.5 | 26.4 |
| 3 | 3.3 | 120 | 27.2 | 13.0 | 48.1 | 8.8 | 43.1 | 71.3 | 35.4 |
| 4 | 2.6 | 84 | 19.6 | 7.9 | 39.8 | 5.4 | 30.3 | 72.1 | 39.2 |
| 5 | 2.1 | 50 | 9.6 | 4.1 | 23.5 | 2.2 | 15.8 | 65.1 | 28.9 |
| Total | 3.3 | 102 | 21.5 | 9.8 | 40.0 | 7.0 | 32.1 | 62.2 | 31.7 |
| Peru, 2004/2005 | | | | | | | | | |
| 1 | 4.8 | 132 | 29.1 | 16.7 | 52.6 | 7.1 | 36.1 | 38.7 | 20.7 |
| 2 | 3.4 | 87 | 18.4 | 7.8 | 42.4 | 2.9 | 23.6 | 48.8 | 25.6 |
| 3 | 2.2 | 67 | 12.5 | 5.4 | 33.5 | 2.0 | 15.0 | 58.7 | 28.1 |
| 4 | 2.1 | 41 | 8.3 | 2.4 | 25.9 | 0.6 | 11.7 | 68.9 | 43.0 |
| 5 | 1.5 | 16 | 4.2 | 1.3 | 22.2 | 0.6 | 6.6 | 74.7 | 31.6 |
| Total | 2.5 | 59 | 12.7 | 5.6 | 32.7 | 2.1 | 16.1 | 56.5 | 29.4 |

Source: Demographic and Health Surveys, Macro International Inc, online: www.measuredhs.com.
Note: Data from Peru 2004/2005 also includes some cases from 2003.

In conclusion, the indicator regarding adolescents in the new goal on universal access to reproductive health in 2015 (the adolescent fertility rate) should be complemented in order to achieve a more complete picture of early childbearing and the factors related to it (and thus most relevant to the design of public policy). In particular, we suggest the following supplementary indicators:

1. The percent of adolescent females (15-19) who are mothers—by single age groups or age-standardized to control for the effect of age composition within the group
2. Also consider this indicator for the group of girls 10 to 14 years old, by single age group
3. The proportion of young women (20-24 or 20-29 years old) that were mothers before their 20$^{th}$ birthday.
4. Utilize the percent of adolescents who already had their first child at the time of contraception initiation, as an indicator of the lack of access to contraceptives
5. Include the percentage of contraceptive use at first intercourse as the closest indicator to the efficient use of contraceptives in adolescents.

Historical reproductive inequalities in Latin America—significantly high since the beginning of the collection of systematic data on fertility—have affected access to family planning and **contraceptives** in particular. And as it is with the rest of the indicators for the new Goal 5B, inequalities have always operated in the same direction; the prevalence of users increases with socio-economic status, such that poor, rural and indigenous women have reported much lower use, in whatever the modality (actual use or ever used).

According to Gakidou and Vayena (2007), among developing regions Latin America has the largest gap in modern contraceptive use according to socio-economic status (i.e., DHS wealth quintiles). Indeed, the latest information available from the DHS in the region presents indicates that contraceptive use has increased in all countries and among all socio-economic groups (Table 6). Furthermore, this increase has been more rapid among the most disadvantaged groups. However, the counterpart to this positive picture is the still significant difference in usage according to socio-economic status in almost all countries and in a handful of countries where poor women are still far behind their better-off counterparts (such as, Guatemala, Haiti and Bolivia).

The exercise offers other indicators in which inequality is expressed, although with national specificities. One of them is the difference between modern and traditional methods, which as noted previously implies a less efficient form of contraceptive protection. In countries such as Bolivia and Peru this difference is significant and broader (in relative terms) among the most disadvantaged women. On the other hand in other countries this difference is narrow (Nicaragua) and in some cases broader (again, in relative terms) among higher educated women (Dominican Republic). In sum, for some countries in the region the difference between any method used and modern methods continues as a relevant indicator of "quality of protection" and for the same reason it is reasonable to consider the distance between the two as an important indicator of universal access.

With regards to condom use, at first glace condom use rates appear low given that in no country it reaches 10 percent of the methods used; however, on a global scale national averages infrequently reach more than 15 percent. The inequalities in usage that manifest themselves in this indicator are noteworthy, above all because condom use is marginal among the most disadvantaged women. A grave case is that of Haiti, the country that has the highest prevalence of HIV/AIDS in Latin America. This has clearly generated a protective response among the most advantaged groups (women in unions with a university education is the group with the highest percentage of users in Table 11) which is very distant from the vulnerability of poor women that practically do not use the condom. Additionally, it is evident that the percentages of condom usage have increased in all countries and within all socio-economic groups.

However, these figures underline three weaknesses of this indicator. The first is that the condom has a male bias that could underestimate its use when the question is posed to

women. In this sense, making men more visible in SRH indicators (ideally, by including them in surveys on sexual and reproductive health) is key for a closer approximation to contraceptive coverage, a topic which shall be covered in the following section. The second is that condom use is still closely associated with protection from the spread of sexually-transmitted diseases (STDs) and HIV/AIDS, and as such, it is still a method that is used infrequently in stable relationships (irrespective of the security it offers). Because of this, the low prevalence of condom usage can be a result of the perception of a low risk of contracting STDs or of strict monogamy. The third weakness is that the condom can be used only on occasion, thus an indicator on "current usage" would also underestimate its importance.

As noted previously, sterilization has been one of the preferred methods of contraception in several countries for Latin America and the Caribbean. However, the accelerated spread of sterilization in the region during the 1980's and 1990's generated great controversy because of the concern that this method was applied without safeguarding the basic rights of the recipients of the surgery, particularly in the case of the poor. In some countries it was charged that the practice of sterilization was coercive to the point of being criminal in nature. After ICPD, sterilization without consideration of all the rights of a person stood in complete contradiction to this international agreement. Thus, the debate over the use of sterilization as a means of contraceptive now centres on the question of whether it is in fact a method only for the poor. As one example, sterilization use is particularly high in Northeastern Brazil, the poorest region of the country, where Caetano and Potter (2004) argue that the lack of supply of contraceptive methods, together with the high prevalence for deliveries by caesarean section and high levels of political clientelism has reinforced sterilization as the main contraceptive method in this region. However, the conclusion that can be drawn from the figures in Table 11 is that a systematic trend towards higher use among the poor does not exist; in fact, in some countries the trend is in the opposite direction (i.e., higher sterilization rates among more educated women).

Regardless, it is difficult that the actual practice of sterilization be the object of controversy, since it is known that it is an effective and simple method of contraception. Due to the irreversibility of sterilization, however, the method should be applied with complete transparency and a woman's consent. Additionally, it is not always easy to collect information on whether sterilization was conducted with total consent and respect for human rights. While objective indicators that could be used do exist, such as the number of sterilizations performed at young ages or at a low completed fertility, these are only approximations that do not permit for definitive conclusions to be made on the desire for and transparency of the procedure.

In summary, unequal access to appropriate and efficient contraceptive methods continue to exist as a problem in Latin America and the Caribbean, and as such continues to be a challenge for public policy. The important advances that some countries have made in terms of the expansion of this coverage are indicative of the possibility to successfully face this challenge if political will exists, correct programs are applied, and financial resources are dedicated to the provision of contraceptives.

As was expected in the inequalities found with respect to adolescent fertility and the use of contraception, levels of unwanted fertility also are highly differentiated by socio-economic status. In fact, the unmet need for contraception among women without any formal schooling is normally twice or more of that among women with secondary schooling or higher (see Table 12). As is the case of contraceptive use, Latin America and the Caribbean is the region with the most socio-economic inequality in the unmet need for contraception (United Nations, 2008). This inequality is present in both types of unmet need (for spacing births and for limiting births). Nevertheless, as the former represents the bulk of total demand, the rates of unmet need for contraception are closer to the rates of the unmet need for contraception to space births. One exception in the inequalities in rates of unmet need is the Dominican Republic, which according to the 2007 DHS in this country, all socio-economic groups are characterized by around a 15 percent rate of total unmet need. Compared to other countries in the region, such as Brazil and Colombia, this percentage is high, although more homogenous than other countries.

Table 11. Current contraceptive use by select method, by women's educational level, Latin America: circa 1990 and circa 2005.

| | No Formal Education | | | | Primary Education | | | | Secondary Education or Higher | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Any method** | **Any modern method** | **Con-dom** | **Female sterili-zation** | **Any method** | **Any modern method** | **Con-dom** | **Female sterili-zation** | **Any method** | **Any modern method** | **Con-dom** | **Female sterili-zation** |
| Bolivia 2003 | 33.6 | 17.8 | 0.7 | 4 | 55.1 | 30.2 | 1.9 | 5.6 | 69.5 | 46.4 | 7.7 | 8.5 |
| Bolivia 1989 | 11.6 | 2.4 | 0 | 1 | 26.3 | 9.1 | 0 | 4.4 | 49.4 | 23.8 | 1 | 6.7 |
| Brazil 1996 | 64.1 | 56.6 | 2.2 | 45.7 | 71.9 | 66.1 | 2.8 | 42.8 | 81.8 | 75 | 5.8 | 37.4 |
| Brazil 1986 (2) | 47.3 | 39.5 | 0.7 | 23.8 | 67.1 | 57.7 | 1.5 | 27.4 | 72.9 | 61.2 | 3 | 26 |
| Colombia 2005 | 67.1 | 57.4 | 3.6 | 39.3 | 78.5 | 67.5 | 5 | 36.5 | 78.7 | 69.1 | 8.4 | 27.8 |
| Colombia 1990 | 52.6 | 44 | 0.6 | 27 | 63.3 | 51.8 | 2.2 | 23.8 | 70.7 | 58.9 | 3.9 | 17.2 |
| Dominican Republic 2007 | 69.8 | 68 | 0.3 | 54.8 | 75.2 | 73.3 | 1.3 | 56.1 | 71.2 | 67.4 | 2.6 | 39.3 |
| Dominican Republic 1991 | 41.5 | 37.8 | 0 | 35.2 | 55.2 | 52.3 | 0.2 | 43.7 | 61.4 | 53.7 | 3 | 30.9 |
| Guatemala 1998/99 | 19.4 | 16 | 0.7 | 11.4 | 38.4 | 31.3 | 2 | 17.3 | 68 | 53.6 | 5.7 | 23.7 |
| Guatemala 1987 (3) | 9.8 | 8.6 | 0 | 5.6 | 29.5 | 24.3 | 1.6 | 13.3 | 60 | 46.2 | 4.9 | 20.3 |
| Haiti 2005/06 | 24.5 | 18.5 | 0.8 | 2.7 | 31.9 | 25.1 | 3.5 | 1.9 | 40.4 | 31.4 | 12.5 | 1.8 |
| Haiti 1994/95 | 11.3 | 8.4 | 0.6 | 3.7 | 19.7 | 15.2 | 2.5 | 3 | 34.2 | 23.2 | 9.3 | 1.7 |
| Nicaragua 2001 | 52.1 | 50.4 | 1.1 | 21.4 | 71.7 | 69.8 | 2.8 | 27.6 | 73 | 69.4 | 4.9 | 24.6 |
| Nicaragua 1997/98 | 46.3 | 44.6 | 2.2 | 26 | 59.3 | 57.4 | 1.9 | 28.4 | 68.8 | 63.9 | 3.6 | 23.3 |
| Peru 2000 | 50.2 | 33 | 0.8 | 11.8 | 63.5 | 43.8 | 2.8 | 13.8 | 74.9 | 57.1 | 8.1 | 11.4 |
| Peru 1986 | 19.1 | 7.6 | 0.2 | 4.3 | 39.3 | 17.1 | 0.4 | 6.8 | 63.3 | 35.7 | 1.3 | 6.1 |

Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com.

As other studies have pointed out (for example, Dixon-Mueller and Germain, 2007), this indicator, which in principle is the most adequate for a rights-based framework and the most relevant for public policy, has several difficulties in measurement and interpretation. As such, the indicator on the unmet need for contraception requires other indicators to facilitate analysis. Regardless, the objective of reducing inequalities of this indicator between and within countries appears feasible (much more if the figures from the Dominican Republic are considered) and pertinent from a human rights standpoint.

Table 12. Unmet need for contraception to space, to limit, and total, according to educational level, Latin America: circa 1990 and circa 2005 (in percentages).

| Country and survey year | Unmet need for spacing | | | Unmet need for limiting | | | Total unmet need | | |
|---|---|---|---|---|---|---|---|---|---|
| | No formal education | Primary schooling | Secondary schooling or higher | No formal education | Primary schooling | Secondary schooling or higher | No formal education | Primary schooling | Secondary schooling or higher |
| Bolivia 2003 | 67.5 | 37.3 | 19.4 | 47.0 | 31.0 | 16.3 | 48.2 | 32.3 | 17.6 |
| Bolivia 1994 | 66.7 | 41.7 | 19.0 | 56.6 | 36.9 | 16.5 | 57.5 | 37.9 | 17.4 |
| Brazil 1996 | 35.8 | 24.6 | 9.5 | 17.6 | 8.4 | 4.2 | 19.1 | 11.0 | 5.5 |
| Colombia 2005 | 27.8 | 15.8 | 10.5 | 13.4 | 5.8 | 3.8 | 15.0 | 7.4 | 5.8 |
| Colombia 1990 | 27.7 | 21.4 | 13.5 | 23.4 | 15.3 | 7.8 | 23.9 | 16.8 | 10.1 |
| Dominican Republic 2007 | 31.3 | 38.7 | 26.2 | 13.1 | 6.7 | 7.0 | 15.0 | 12.8 | 14.0 |
| Dominican Republic 1991 | 82.8 | 60.7 | 25.2 | 35.8 | 16.2 | 9.2 | 41.5 | 25.0 | 15.8 |
| Guatemala 1998/99 | 79.8 | 62.8 | 28.1 | 52.0 | 24.1 | 6.6 | 59.4 | 37.9 | 14.5 |
| Guatemala 1995 | 85.7 | 65.2 | 20.9 | 57.8 | 30.5 | 8.1 | 67.0 | 43.7 | 12.8 |
| Haiti 2005/06 | 71.7 | 63.3 | 45.3 | 58.4 | 50.1 | 44.8 | 61.1 | 55.9 | 45.1 |
| Haiti 1994/95 | 87.0 | 77.8 | 55.9 | 76.6 | 65.1 | 51.4 | 79.6 | 70.3 | 54.2 |
| Peru 2000 | 32.5 | 21.9 | 10.3 | 22.2 | 15.2 | 7.3 | 23.4 | 16.7 | 8.5 |
| Peru 1992 | 45.5 | 32.6 | 14.6 | 39.2 | 22.7 | 11.8 | 39.7 | 24.5 | 12.8 |

Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com.

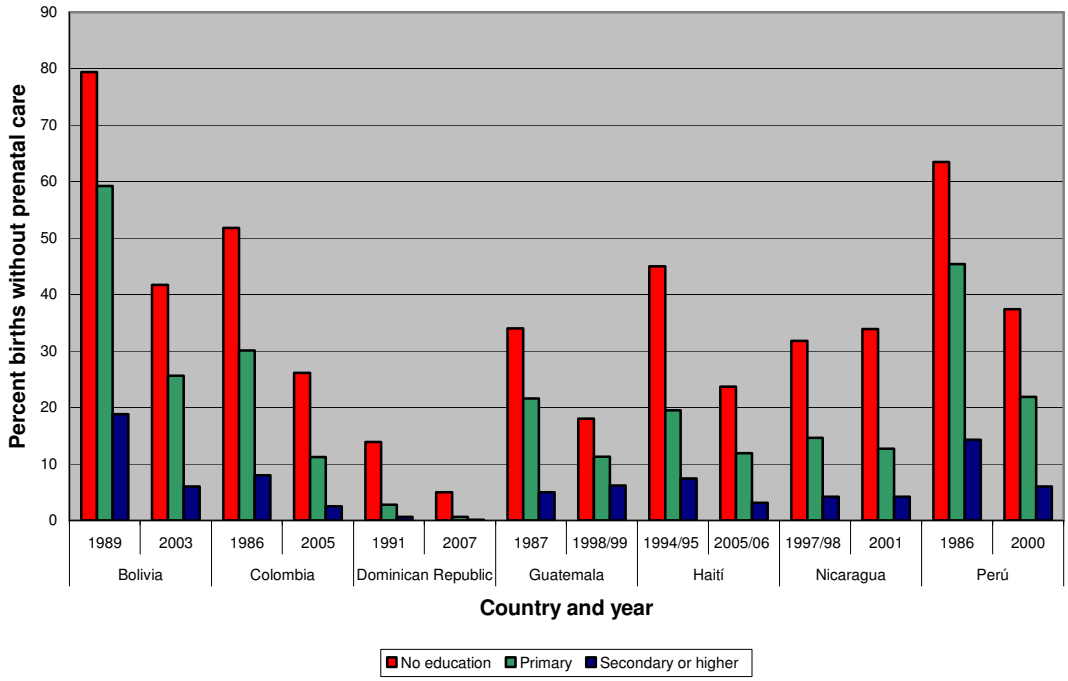
Finally, in Latin America inequality in both reproductive health as well as maternal health are also expressed in prenatal care indicators (which in turn affects another MDG, that of reducing child mortality).

As can be expected, socioeconomic differences in this indicator are highly visible (see Figure 11), although they have decreased in the last years, in large part because mothers with secondary education or more already had high levels of antenatal care usage since the 1980's. Because of this, clearly in Latin America is appropriate to use a more stringent indicator, such as the percentage of births with four antenatal visits or more. However, even this indicator could even be a weak indicator in the region, where health care services are often of poor quality. An exceptional case in this sense is the Dominican Republic, where antenatal care (at least one visit) is nearly universal yet child health indicators are still far from satisfactory

In sum, these affirmations do not imply that health system coverage of antenatal care is irrelevant; in point of fact the countries in Latin America and the Caribbean that have been most successful in the reduction of child and maternal mortality (Chile, Costa Rica y Cuba, none of which appear in Table 8), are notable for their universal coverage of

prenatal, birth and after birth care. However, in countries where coverage levels stand in contradiction to their levels of maternal and infant mortality, clearly other indicators are needed to evaluate that antenatal care visits are achieving their goal of ensuring the health of both mothers and their newborns.

Figure 11. Proportion of births with no prenatal care, according to educational level of the mother. Latin America: circa 1990 and circa 2005




Source: Macro International Inc, 2009. MEASURE DHS STATcompiler. http://www.measuredhs.com.

## The Invisibility of Men in Reproductive Health Indicators

Historically in the field of demography, indicators of reproductive behaviours have been calculated solely for women. This invisibility of men in indicators of reproductive health have given the impression that men's reproductive health is not salient to academic or political inquiries in the field, or that they do not influence their female partner's reproductive health (or when they do, they act as a barrier to women's exercise of her reproductive rights). This view is neither substantiated nor correct within a human rights framework. According to the ICPD PoA (1994), implicit in the definition of reproductive health is, "the right of men *and* women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice (p. 45, italics added). Thus, the shift from family planning and reproductive outcomes to reproductive rights with ICPD and the new MDG target has brought men into the picture of universal access to reproductive health.

Most obviously studies and policies on reproductive health have concentrated on women because they produce the main outcome of interest—births. Rodríguez (2008) cites several additional reasons as to why men have traditionally not been included in the

dialog on reproductive health. One is that measures of fertility are usually only calculated for women, mostly due to the fact that data sources, such as surveys or fertility modules in censuses, tend to only collect data on fertility patterns for women. Furthermore, modern contraceptive methods primarily have targeted women, and as a cause or result the responsibility for contraception use most often falls to the female partner. Lastly, the idea of "irresponsible fatherhood," leads to the conclusion that men are more apt or likely to evade their responsibility as fathers, thus playing little importance in the health of their children and the reproductive patterns of their female partners over their life course. Thus, this invisibility of men in reproductive health indicators reinforces the tradition that the burden of ensuring reproductive health lies with women, and that it should be taken as granted that men are absent from or detrimental to the reproductive health of their female partners.

Although men are increasingly included in studies of reproductive health, little is still known about men's sexual and reproductive health, particularly that of adolescent men, in Latin America and the Caribbean. Greene and Biddlecom (2000), however, argue that two demographic trends now more than ever necessitate the inclusion of men in studies of reproductive health. The first is the decreasing correspondence between marriage and childbearing, which has been referred to previously in this work. The second, to an extent a reflection of the first, is what the authors refer to as the "divergence of cumulative experience" between men and women's reproductive histories. More complex marital and partnership trajectories are reflected in both men and women's reproductive patterns, in that families can be comprised of children from different parentage, such that a women's completed fertility history may or may not reflect that of her husband's or partner's. In addition to these two trends, part of the shift towards interest in men's reproductive health has been driven by the spread of HIV/AIDS and attempts to stem the spread of the disease. This has mainly centred around use of the condom and the number of sexual partners.

In addition to having their own reproductive health concerns and be clients of reproductive health services, men can influence women's reproductive health on a range of indicators. This has been more acknowledged than men's role as clients of reproductive health services, but usually under the assumption that men act as barriers to women's reproductive rights, particularly given that men on average report desires for larger families than do women. Without documenting the actual effect of men on women's contraceptive choices and reproductive health in general, these assumptions can be neither affirmed nor disputed, and much less incorporated into service provision.

Finally, given the interest in explaining and reducing adolescent fertility, data on the reproductive health of adolescent men would be particularly useful to explaining the recent rise in teenage motherhood and to informing programmatic efforts to address it. As such, an additional shortcoming of the four indicators on universal access to reproductive health previously unmentioned is the exclusion of men in the calculation of these indicators. The MDG target on ensuring universal access to reproductive health does not mention that this target is limited to women; however, this target does fall within the goal of improving maternal health, thus the gender bias is implicit Notwithstanding,

indicators of men's reproductive health not only meet the requirement of ensuring the universal access to reproductive health under the guidelines set out in the ICPD PoA, it also provides more information on the cultural context in which reproductive decisions are made. As the majority of this information presented above is based on census or reproductive health surveys (many of which include men in their samples), and in line with a human rights framework as well as the principles of the ICPD PoA, indicators of men's universal access to reproductive health—both as clients and as women's partners—should be included in monitoring and promotion.

**Conclusion**

Although Latin America and the Caribbean have made significant advances towards reaching the Millennium Development Goals (MDGs), many challenges remain. The summary indicators established as measures of progress towards MDGs mask disparities between countries in the region. Additionally, within-country disparities pose further challenges with regards to the MDGs. Countries in Latin America and the Caribbean have maintained over time some of the highest rates of income inequality in the world (ECLAC 2006). In addition to high economic inequality, geographical disparities, the exclusion of indigenous and afro-descendent groups and gender inequality persist in Latin America and the Caribbean. Social exclusion and poor access to services precludes a large part of the population from participating in economic development, thus reinforcing the perpetuation of poverty across generations (ECLAC 2006).

Accordingly, there is a need to support systematic data collection for the formulation of results-based policies. This includes disaggregating existing indicators in order to better meet the need of specific populations—adolescents, men, migrants, and those with geographically bounded constraints to access reproductive health-care. The focus on age and subgroups in the measurement of reproductive health is consistent with a life course perspective that acknowledges that sexual and reproductive behaviours, needs, and intentions change according to where one is in the life course and the social context in which SRH is embedded. Our rationale in this paper has been not to include new indicators, but rather propose additional indicators that compliment the existing MDG indicators of access to reproductive health, in order to better approximate the goals.

The cultural context of fertility in Latin America and the Caribbean needs to be taken into account if universal access to reproductive health is to be achieved. Adolescent fertility, socio-economic differentials and the exclusion of men in reproductive health is not singular to the Latin American and Caribbean region. However, given the advances that have already been made in the region, these three areas must be addressed in order to achieve the MDG goal on universal access to reproductive health. Thus, focusing on these issues provide guidance for programmatic interventions in the coming years.

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