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HIGH ADOLESCENT FERTILITY IN THE CONTEXT OF DECLINING FERTILITY IN LATIN AMERICA

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Population Division of ECLAC

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PREFACE

The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat organized an *Expert Group Meeting on Adolescents, Youth and Development* at the United Nations Headquarters in New York, on 21 and 22 July 2011. The meeting was convened in response to two main mandates: 1) The United Nations General Assembly resolution A/RES/64/134 proclaiming the year commencing 12 August 2010 as the International Year of Youth; and 2) The United Nations Commission on Population and Development decision to designate "Adolescents and youth" as the theme of its forty-fifth session, to be held in April of 2012. The meeting brought together experts from different regions of the world to present and discuss research on two broad themes: demographic dynamics of youth; and youth as agents of socio-economic development. A selection of the papers prepared by experts participating in the first part of the meeting is being issued under the Expert Paper Series published on the website of the Population Division (www.unpopulation.org).

This paper was prepared by Jorge Rodríguez, researcher at the United Nations Economic Commission for Latin America and the Caribbean. The paper documents the unusually high adolescent fertility rates as compared with other regions of the world and with respect to overall fertility in the countries of the region. It then examines critically the projections and the recent evidence on the proximate determinants and socio-economic implications of adolescent fertility and motherhood. The paper emphasises the key role of early sexual initiation, contraceptive use since first intercourse, and family and household formation among adolescents. The author also reviews the evidence on unwanted adolescent fertility as a function of long-standing social inequalities in the region. A final section considers policy implications, including a call for developing comprehensive sexual education programmes especially in secondary schools, given the high attendance rates in most countries in the region, and to facilitate access to sexual and reproductive health services appropriate for adolescent females and males.

The *Expert Paper Series* aims at providing access to government officials, the research community, non-governmental organizations, international organizations and the general public to overviews by experts on key demographic issues. The papers included in the series will mainly be those presented at Expert Group Meetings organized by the Population Division on the different areas of its competence, including fertility, mortality, migration, urbanization and population distribution, population estimates and projections, population and development, and population policy. The views and opinions expressed in the papers that are part of the series are those of their authors and do not necessarily reflect those of the United Nations. The papers in the series are released without undergoing formal editing.

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HIGH ADOLESCENT FERTILITY IN THE CONTEXT OF DECLINING FERTILITY IN LATIN AMERICA

Jorge Rodríguez, Latin American and Caribbean Demographic Centre (CELADE) - Population Division of ECLAC

A. INTRODUCTION

Adolescent fertility remains a relevant issue in Latin America for several reasons. First, adolescent pregnancy is linked to greater health risks for mother and baby. Second, early motherhood and fatherhood typically result in such disadvantages as lower educational achievement, including school dropout and weaker performance in the labour market. Third, adolescent mothers tend to suffer stigma and to be confined to traditional women's roles throughout their life-cycle. Fourth, adolescent mothers are less mature and therefore less able to cope with the challenges of childrearing. Fifth, adolescent mothers find it more difficult to consolidate a family. Sixth, poor adolescents have higher fertility rates than non-poor teenagers. The combination of these disadvantages makes adolescent fertility part of the cycle of reproduction of poverty. Seventh, adolescents tend to be more vulnerable to sexual violence, peer pressure and risky behaviour. Eighth, social, cultural and familial acceptance and intolerance of premarital sexual activity among adolescents are sensitive issues. In the Latin American region, unmarried adolescents who are sexually active often face societal disapproval and sometimes condemnation.[i] Lastly, while reproductive and health policies and programmes have successfully reduced fertility among young and adult women (especially married adult women) in the region, they have not had the same effect on adolescent fertility. Thus, while the total fertility rate in many countries of Latin America has fallen rapidly in the past 40 years, the age-specific rate for the 15-19 age group has remained virtually unchanged.

The cumulated evidence on these issues has contributed to the development of a regional and global political consensus[ii] to incorporate early parenthood in the agenda of public policies; and to take steps to prevent adolescent pregnancy and fertility, including by government-sponsored campaigns to increase awareness of the disadvantages of early parenthood. Moreover, the consensus also endorses active reproductive health policies to: (a) empower adolescents to take preventive steps, including delaying first intercourse; (b) provide them with appropriate sexual education; and (c) offer them contraceptive services in accordance with their particular needs and preferences. Since the number of unwanted pregnancies in this age group is growing, there is a growing need for public policies and programmes to improve adolescent access to sexual and reproductive health services, including the provision of sexual education and contraception. The consensus also emphasizes that policies and programmes on adolescent pregnancy should be implemented with no coercion, and with full respect for the adolescents themselves.

The remaining of the paper is structured as follows. First, I examine comparative trends amongst regions of the world and between countries of Latin America, of two indicators: (a) the fertility rate of adolescents aged between 15 and 19 years; and (b) the percentage of mothers in the 15-19 age group, drawing on recent data from projections by the Population Division of the United Nations Department of Economic and Social Affairs (UNDESA), international demographic surveys, vital statistics and censuses. Second, the paper discusses trends relating to the proximate determinants, such as sexual activity, timing of the union,[iii] and use of contraception. Third, I analyse trends and patterns of unwanted fertility among adolescents and the total population. Fourth, the historical social inequality of adolescent motherhood is re-examined using recent data, taking into account changes in educational structure in the region. Finally, the policy implications of the findings are discussed.

B. Comparative Regional and National Trends

1. The high adolescent fertility levels in Latin America and the Caribbean

Figure 1 shows that Latin America has one of the highest adolescent fertility rates among the major areas of the world, second only to Africa's. The figure also shows that fertility at early ages in the region is atypical in that it has not fallen together with the total fertility rate, and therefore the age-specific adolescent fertility rate for the 15-19 years age-group is much higher than might be expected based on its total fertility rate. Figure 2 displays the same indicators for the countries in the Latin

Figure 1. Total fertility and adolescent fertility rates by major area, 2010-2015

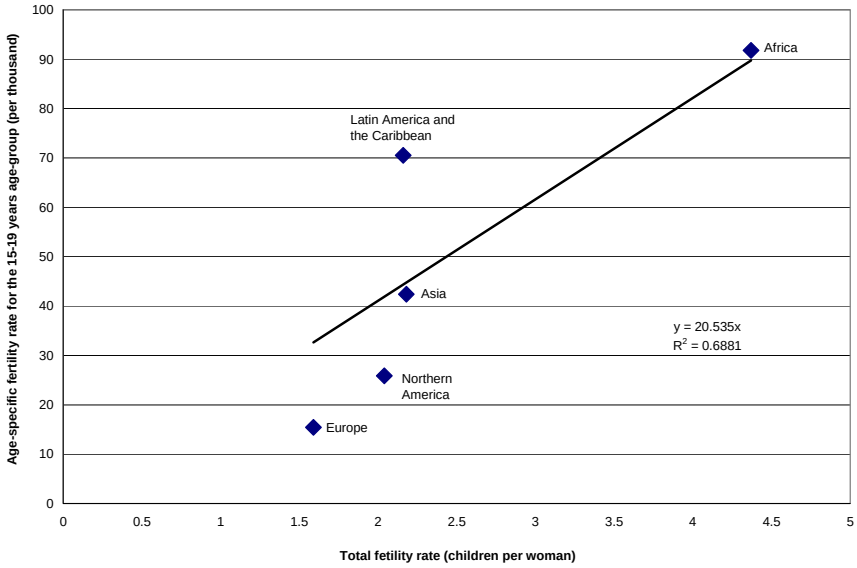
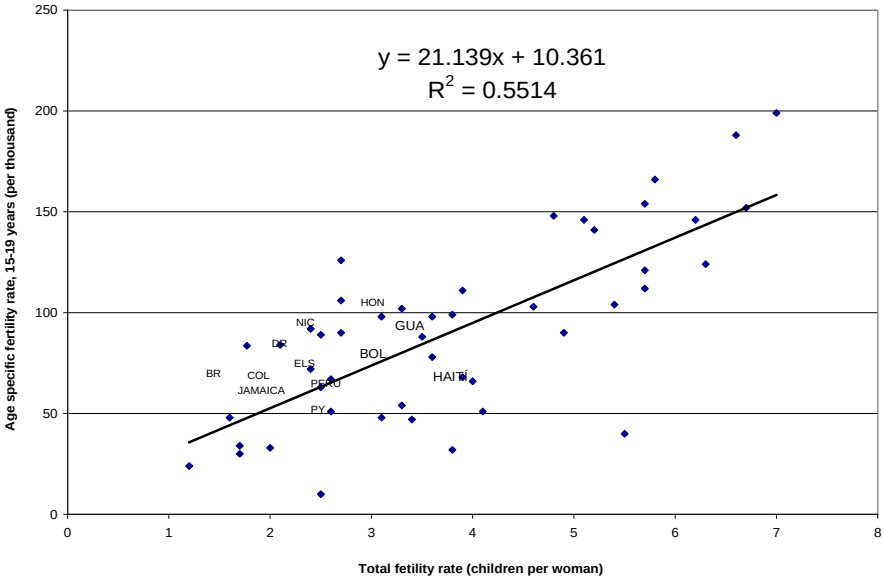


Figure 2. Total fertility and adolescent fertility across countries, including selected Latin American and Caribbean countries, mid- to late 2000s



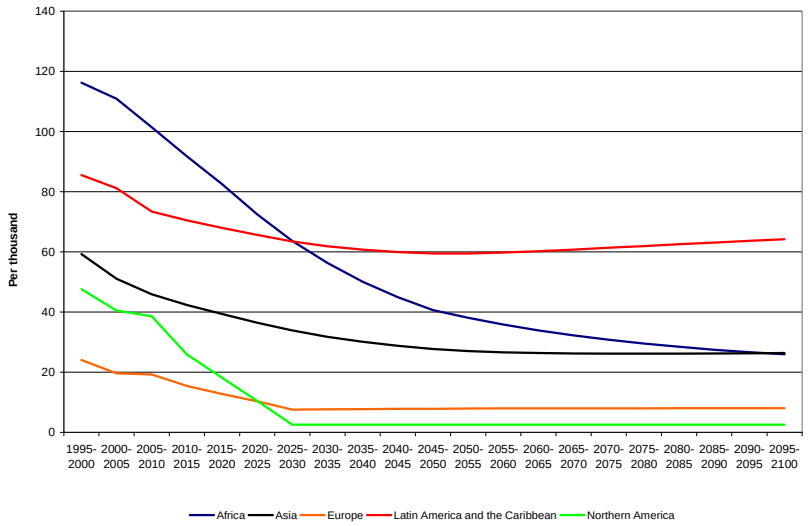
America and the Caribbean and from other regions, showing that nearly every country in Latin America and the Caribbean has an adolescent fertility rate that is considerably higher than might be expected based on its total fertility rate. These findings suggest that the structural socio-economic

transformations, cultural change and public programmes that encouraged the decline in total fertility rates in Latin America have not had the same effect on adolescent fertility.

2. The distinct projection of adolescent fertility in Latin America

The persistently high levels of adolescent fertility in Latin America and the Caribbean does not support the optimistic hypothesis that adolescent fertility will decline inexorably because it has done so in other regions of the world. The Population Division of UNDESA appears to have taken this into account in its latest projections, shown in figure 3, by predicting that adolescent fertility rate in Latin America will be the highest in the world and that it will remain virtually stable for the period 2020-2100. These projections are grounded on regional adolescent fertility trends over the past 30 years.

Figure 3. Adolescent fertility rate, major areas, 1995-2000 to 2095-2100



The assumption that such a peculiar trend will persist throughout the twenty-first century, however, is nonetheless a bold one. This paper provides new information on the decreasing desire to start procreation amongst teenagers, the link between entry into union, fertility and the use of contraception in adolescence, which are changing some of the determinants of high adolescent fertility. In this context, adolescent fertility could become more responsive to the policies and programmes designed to reduce it.

3. National trends in adolescent fertility according to specialized surveys

Although adolescent fertility has traditionally been measured by the age-specific fertility rate for 15-19 year-olds, the proportion of women in that group reporting to have had one or more live births is also a very useful indicator because: (a) it is simple and straightforward to calculate and interpret; (b) it can be obtained directly from both censuses and surveys; (c) is not affected by cumulative fertility[iv] in adolescence; and (d) is more relevant for policy purposes, since it quantifies the proportion of adolescent mothers, which can also be used to estimate that population in the future. Consequently, this indicator (together with the percentage of first-time pregnant women aged 15 to 19 years, which can be obtained only from surveys) is the main indicator used in this paper.

Table 1 shows the percentage of adolescent mothers or pregnant for the first time, as recorded in surveys carried out in the 1980s, the 1990s and the 2000s. Although the trends vary—in six countries adolescent fertility has declined while in five it has risen—they certainly suggest that

adolescent fertility behaves differently from total fertility, which has been falling consistently in all countries in the region.

TABLE 1. LATIN AMERICA: MOTHERS OR FIRST-TIME PREGNANT, BASED ON SURVEYS CARRIED OUT IN 1985-1999 AND 2004-2010
(Percentages of all women aged 15-19 years)

Country and survey dates	Recent 2004-2010 (1)	Past 1985-1999 (2)	Variation in percentage points (1) - (2): positive signals increase
Bolivia (Plurinational State of): DHS 2008, DHS 1989	17.9	17.2	0.7
Brazil: PNDS 2006, DHS 1986	22.3	13.3	9.8
Colombia: DHS 2010, DHS 1986	19.5	13.6	5.9
Dominican Republic: DHS 2007, DHS 1996	20.6	22.7	-2.1
Ecuador: ENDEMAIN 2004, DHS 1987	19.4	17.0	2.4
El Salvador: FESAL 2008, DHS 1985	22.8	26.6	-3.8
Guatemala: DHS 2008 – DHS 1987	21.8	22.8	-1.0
Haiti: DHS 2005-06, DHS 1994-95	14.0	14.5	-0.5
Nicaragua: IRHS 2006, DHS 1998	25.2	27.0	-1.8
Paraguay: IRHS 2008, DHS 1990	11.6	16.8	-5.2
Peru, ENDES continua 2009, DHS 1986	13.7	12.7	1.0

Source: ICF Macro, MEASURE DHS STATcompiler, available from http://www.measuredhs.com [accessed 5 May 2011]; Ministry of Health of Brazil, *Pesquisa Nacional de Demografia e Saúde da Criança e da Mulher (PNDS) 2006. Relatório*, table 10, p. 126, Brasilia, 2008; Association for Family Welfare (Profamilia), *Informe de la Encuesta Nacional de Demografía y Salud (ENDS) 2010*, table 5.9.1, p. 114, Bogota, 2011; National Institute of Statistics and Informatics (INEI), *Encuesta Demográfica y de Salud Familiar (ENDES). Continua, 2009. Informe principal*, table 3.10, p. 88, Lima 2010.

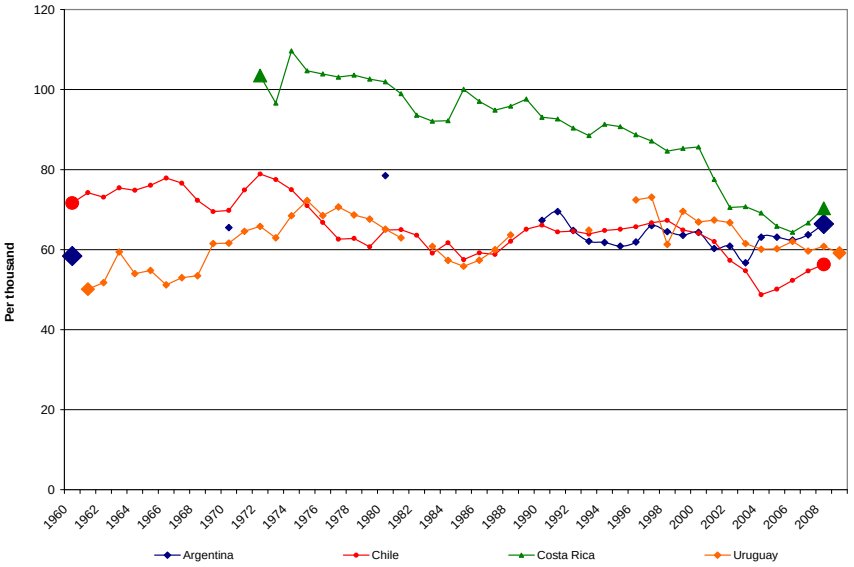
4. National trends in adolescent fertility according to vital statistics

Four countries in the region without specialized demographic surveys—Argentina, Chile, Costa Rica and Uruguay—have reliable vital statistics, which allow tracking of adolescent fertility trends. These countries are special cases since they have the highest levels of socio-economic development in the region, and two of them, Uruguay and Argentina, led the decline in fertility in the region (ECLAC, 2005).

As shown in figure 4, adolescent fertility in Uruguay and Argentina is currently higher than it was in the 1960s, a trend that contrasts with total fertility (not shown in the figure), which fell in both countries during the reference period. In Chile, adolescent fertility is now lower than in 1960, but the oscillations in its trajectory contrast with the steady decline in total fertility. Currently, adolescent fertility stands at 80 per cent of the 1960 level, while total fertility has fallen to 40 per cent of the 1960 level. Only in Costa Rica has adolescent fertility declined consistently and considerably, although less than total fertility (32 per cent and 57 per cent, respectively).

In short, trends in these four countries reflect the resistance of adolescent fertility to downward change in tandem with total fertility, and in two cases, the rate has risen in the several decades of socio-economic changes such as continued increases in school enrolment, that should have triggered a decline in adolescent fertility (Grant and Furstenberg, 2007).

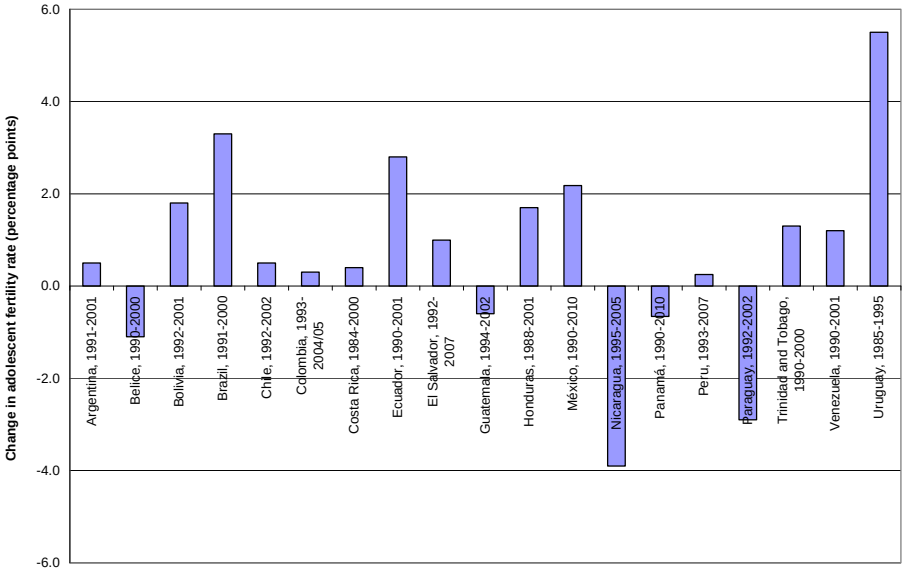
Figure 4. Adolescent fertility, selected countries, 1960-2010



5. Adolescent fertility levels from censuses

The question on the number of live-born children included in nearly all censuses in the region was used to calculate the percentage of women between age 15 and 19 years who are mothers. The traditionally high rate of omission in this question was adjusted by imputing zero children to girls who did not respond (Rodríguez, 2005 and 2009). Figure 5 shows the differences in those percentages obtained from censuses carried out in the 1980s or 1990s and during or after 2000. In most cases, the percentage of mothers among adolescents rose during this period. At the time of the preparation of this paper, few countries had released the results of the 2010 round of censuses, which would help to update this analysis. Surveys undertaken in 2010 in Panama and Mexico suggest varying trends: a slight increase between 2000 and 2010 in Mexico and a fall in Panama[v] in the same period.

Figure 5. Change in adolescent fertility, selected countries and time periods during 1990 to 2010



C. Proximate Determinants

1. Proximate determinants of adolescent fertility

This section examines the proximate determinants of adolescent fertility based on the concepts and methods developed by Davis and Blake (1956) on the direct and indirect determinants of fertility (1956), followed by Bongaarts' (1978 and 1982) formalization of the proximate determinants and their impact on natural fertility and the subsequent revision of his model by Stover (1998). This conceptual framework can be used to study the proximate determinants of adolescent fertility, but requires important adaptations and more elaborate methods than other age groups. The proximate determinants of adolescent fertility are essentially the start of menstruation (age of menarche), exposure to sexual activity, use of contraception and abortion.

The evidence shows that menstruation is starting at an earlier age in most of the countries of the region (Gómez, Molina and Zamberlin, 2011; Rodríguez, 2009), thereby increasing the period of exposure to the risk of adolescent fertility. But given that menarche occurred on average around age 14 in the past, its earlier onset would have only minimal direct effects on the fertility of the 15-19 age group studied in this paper.

A key change made to Bongaarts' model by Stover concerns the use of sexual activity rather than marriage to indicate exposure to pregnancy (Stover, 1998). This change is important because premarital sexual activity has become more prevalent, increasing the likelihood of early reproduction without prior union[vi] (Alí and Cleland, 2005; Bozon, 2003). This does not necessarily mean that all pregnancies or births result from casual sexual relations, in fact, births resulting from casual relations in adolescence are rare.

As a proximate determinant, sexual activity can be broken down into the age of sexual initiation, crucial in the case of adolescents, and the frequency of sexual intercourse. Age of initiation can be determined by a simple question in a specialized survey (although bias may affect the responses). Frequency of sexual intercourse, however, is more difficult to assess because specialized surveys do not provide a record of sexual activity.[vii] That said, a question on sexual activity during a given, recent period can give an indication of the frequency of sexual activity. Ali and Cleland (2005) developed a method to convert the data from this question into estimates of annual coital frequency, although there are doubts as to the reliability of those estimates. Consequently, this paper uses just age at sexual initiation as indicator of sexual activity.

The current models of the intermediate variables of fertility include current contraceptive use as an indicator. But even if Stover's refined concept of prevalence[viii] is adopted, current use is fundamentally flawed in the case of adolescents since it assumes that all girls currently using contraception are protected against the risk of pregnancy when in fact this does not apply to those who are already mothers. Moreover, cross-sectional multivariate models (typically logistic regressions) including current use of contraception as one of the variables determining the likelihood of a girl becoming an adolescent mother tend to find that women who use contraception are *more* likely to become mothers than those who are not current users (Di Cesare and Rodríguez, 2006; Rodríguez, 2009), as confirmed by data from recent surveys. This point is illustrated with the findings for the Plurinational State of Bolivia based on that variable. The first two columns of table 2 show that girls already sexually initiated and not using contraception are just over half (55 per cent) as likely to become a mother than those currently using contraception. Of course this does not mean that contraception use increases the probability of becoming an adolescent mother. What this reveals is that, in Latin America, it is common for adolescent girls to start using contraception after the birth of their first child (Rodríguez, 2009), apparently because motherhood breaks down barriers for them to gain access to contraception. Consequently, and in the absence of synthetic indicators of contraception trends, the indicator measuring contraceptive protection used in this paper is the *use of contraception in the first sexual intercourse*. Although this approach has evident weaknesses inasmuch as the use of

contraception[ix] in the first sexual intercourse is no guarantee of protection in future sexual relations, the available evidence shows that this is a good indicator[x] of future preventive behaviour (Di Cesare and Rodríguez, 2006).

Lastly, with regard to abortion, what little evidence there is for the region is fragmented, since abortion is illegal in most Latin American countries. Only recently have international surveys (Demographic and Health Surveys; and International Reproductive Health Surveys) included questions on induced abortions but their findings are pending technical validation. Official statistics from Cuba, where abortion is legal, suggest that it has a significant impact on adolescent fertility levels but that early motherhood is nonetheless more common than might be expected based on the country's low fertility rate. In Chile, the Sixth National Youth Survey carried out in 2009 showed that 6 per cent of the adolescent who had unplanned pregnancies had undergone at least one abortion (male responses, which tend to be less reliable or consistent on these matters, give a much higher percentage). Despite the potential importance of abortion, the lack of good data on it means that this proximate determinant has to be excluded from the analysis below.

TABLE 2. LATIN AMERICA: SEXUALLY ACTIVE WOMEN AGED 15-19 YEARS, BINOMIAL LOGISTIC REGRESSION COEFFICIENTS (ODDS RATIOS) AND STATISTICAL SIGNIFICANCE OF SELECTED VARIABLES DETERMINING THE RISK OF BECOMING AN ADOLESCENT MOTHER, BASED ON SURVEYS CARRIED OUT BETWEEN 2005 AND 2010, BY COUNTRY

Variables	**Bolivia (Plurinational State of), 2008** [a]		**Bolivia (Plurinational State of), 2008** [b]		**Colombia, 2010**		**Dominican Republic, 2007**		**Haiti, 2005/2006**		**Honduras 2005**	
			Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)
Age	0.000	1.367	0.000	1.382	0.000	1.614	0.000	1.792	.000	1.872	.000	1.743
Education (ref: higher)									Reference: secondary plus		Reference: secondary plus	
No education	0.016	9.684	0.033	7.482	0.000	7.588	0.000	17.876	.093	1.812	.014	2.257
Primary	0.000	8.6	0.000	7.691	0.000	5.842	0.000	8.534	.000	2.607	.000	1.953
Secondary	0.005	4.461	0.008	4.140	0.000	2.541	0.000	4.120	NA		NA	
Socio-economic quintile (ref: richest)												
Poorest	0.000	3.171	0.000	2.572	0.003	1.622	0.003	1.745	.018	2.033	.277	1.297
Poor	0.000	2.395	0.003	2.074	0.000	1.998	0.000	2.259	.030	1.938	.903	.972
Average	0.038	1.666	0.093	1.515	0.012	1.474	0.036	1.504	.144	1.497	.234	1.292
Average-rich	0.341	1.264	0.555	1.156	0.189	1.232	0.001	1.894	.956	1.015	.987	1.003
Age of sexual initiation	0.132	0.979	0.086	0.976	0.000	0.895	0.167	0.990	.000	.714	.126	.982
Current use of contraception (ref: yes)	0.001	0.549					Not applicable					
Use of a condom in first sexual relation (ref: yes)	Not applicable. Current use applied		**0.048**	**1.506**	**0.000**	**1.369**	**0.000**	**1.662**	**.003**	**2.067**	**.001**	**2.005**
Ever in union (ref: yes)	0.000	0.241	0.000	0.229	0.000	0.133	0.000	0.155	.000	.091	.000	.254
Constant	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	.000	.000	.000	.000

Source: Prepared by the author on the basis of special processing of the respective surveys.

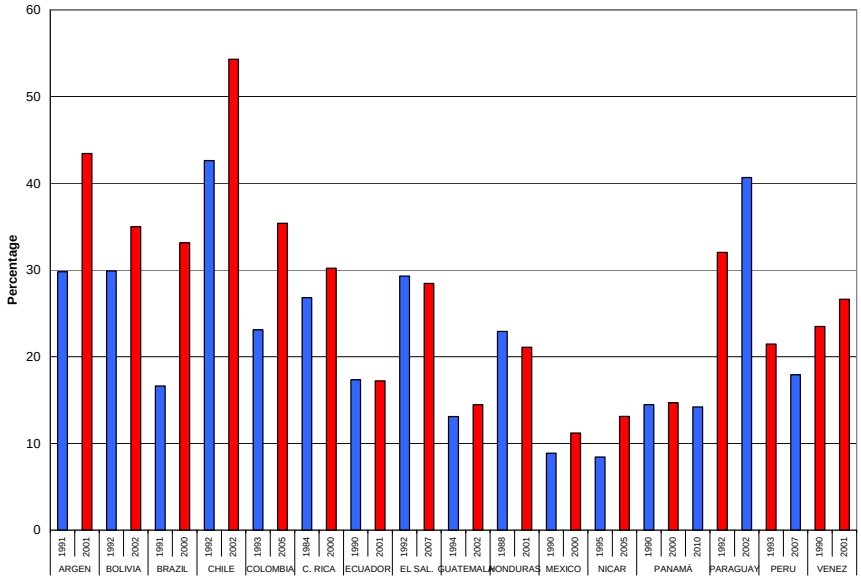
[a] Current use of contraception is used as a variable determining the risk of becoming an adolescent mother.

[b] The use of a condom in the first sexual relation is used as a variable determining the risk of becoming an adolescent mother.

2. Childbearing and marriage among Latin American adolescents

In several of the countries of the Latin American and Caribbean region, vital statistics show that most adolescent mothers are unmarried. A notable case is that of Chile,[xi] where 39,902 births were recorded in 2008 to mothers between the age 15 and 19 years, of whom 38,132 were unmarried. However, a large proportion of these seemingly single mothers have been or are in a relationship, probably with the child's father. This can be inferred from figure 6, based on census data, which shows that with the exception of Argentina in 2001, Chile in 1992 and 2002 and Paraguay in 2002, less than 40 per cent of adolescent mothers are single (the remainder are either married or in a consensual union). But figure 6 also highlights the rise in single[xii] adolescent motherhood over time, a trend that is deeply worrying given that in addition to the difficulties inherent in raising a child before 20 years of age, single adolescent mothers have to contend with lack of support from a partner as well. In these cases, support for childrearing often comes from the families of the adolescent mother, and the babies and young children is raised jointly by mother and grandmother (Oliveira and Vieira, 2010; Tobío 2003).

Figure 6. Proportion of adolescent mothers who are single, selected countries



3. The weakening link between sexuality and marriage among Latin American adolescents

Prevailing social theories on sexual initiation trends predict that: (i) sexual initiation will take place at an earlier age than presently; (ii) it will occur more frequently before union (whether formal or consensual); and (iii) the gap between the respective ages of sexual initiation of males and females will gradually narrow (Bozon, 2003). The cultural transformations driving these trends are the secularization of society, and in particular, in matters related to sexuality, and the increasing autonomy of adolescents in decision-making and value formation taking place mostly in Western developed countries (Grant and Furstenberg, 2007). Some of these transformations could spread to Latin America, given that ideas and behavioural patterns in developed countries tend to influence the region (Alí and Cleland,[xiii] 2005). While the influence on regional demographic behaviour was less clear in the 1990s (Guzmán and others, 2001), data from the 2000s show that sexual initiation is indeed taking place at an earlier age, thereby increasing the risk of adolescent motherhood (see table 3).

With regard to marriage, both modernization theory and the second demographic transition theory predict that young people will increasingly delay marriage (Castro and others, 2010; Grant and

Furstenberg, 2007). Adolescent marriage is predicted to virtually disappear as young people concentrate on furthering their education and gaining personal autonomy and professional experience, all of which are to a large extent incompatible with raising children. However, according to recent studies (Castro and others, 2010; Esteve and others, 2010; Fussel and Palloni, 2004), Latin America does not seem to conform well to these emerging trends and its decades-old marriage patterns remain mostly unchanged. However, some qualifications are in order. First, civil registers show that the average age at first marriage is indeed rising significantly, but there has been no change in the pattern relating to the age of informal union. Second, the average could disguise divergent trends among socio-economic groups and, far from being a stable pattern, it appears to be a polarized one, with older age at marriage among the higher economic strata and younger unions in the lower strata. Third, specialized surveys conducted in the 2000s suggest a decline in the incidence of adolescent unions,[xiv] but the decline is small and varied across countries (see table 3).

TABLE 3. LATIN AMERICA: WOMEN AGED 20 TO 24 YEARS WHO WERE MARRIED AND THOSE WHO HAD FIRST INTERCOURSE AT EXACT AGES OF 15, 18 AND 20, SURVEYS FOR 1980S/1990S AND 2000-2010, BY COUNTRY
(Percentages of all women aged 20-24)

Country, year and change over reference period	Exact age at first marriage			Exact age at first intercourse		
	15	18	20	15	18	20
Bolivia (Plurinational State of) 2008	3.2	21.7	35.8	6.6	40.1	62.5
Bolivia (Plurinational State of) 1989	5.1	23.7	40.7	9.5	36.9	56.9
Change 1989-2008	**-1.9**	**-2.0**	**-4.9**	**-2.9**	**3.2**	**5.6**
Brazil 2006	10.5	35.6	50.1	14.4	58.4	78.7
Brazil 1986	3.7	21.8	39.5	6.1	29.8	48.1
Change 1986-1996	**0.7**	**1.9**	**-0.7**	**3.7**	**12.7**	**13.0**
Colombia 2010	5.6	23.0	37.2	13.8	60.3	82.2
Colombia 1986	4.3	23.3	37.2	6.1	30.9	49.0
Change 1986-2010	**1.3**	**-0.3**	**0.0**	**7.7**	**29.4**	**33.2**
Dominican Republic 2007	13.8	39.6	53.7	16.3	51.0	70.8
Dominican Republic 1996	10.8	37.6	53.4	12.5	42.1	59.3
Change 1996-2007	**3.0**	**2.0**	**0.3**	**3.8**	**8.9**	**11.5**
Ecuador 2004	3.8	22.2	40.9	9.2	37.6	58.1
Ecuador 1987	5.8	26.0	43.9	8.4	32.1	50.9
Change 1987-2004	**-2.0**	**-3.8**	**-3.0**	**0.8**	**5.5**	**7.2**
El Salvador 2008	5.0	25.4	42.4	10.7	40.4	60.5
El Salvador 1985	6.2	37.7	58.5	6.7	32.9	48.6
Change 1985-2008	**-1.2**	**-12.3**	**-16.1**	**4.0**	**7.5**	**11.9**
Guatemala 2002	8.1	35.0	50.4	12.2	41.7	57.6
Guatemala 1987	12.4	41.2	60.0	13.9	44.7	62.5
Change 1987-2002	**-4.3**	**-6.2**	**-9.6**	**-1.7**	**-3.0**	**-4.9**
Haiti 2005-06	5.6	29.9	47.9	13.5	53.4	72.9
Haiti 1994/95	4.8	23.8	44.8	9.2	40.8	61.8
Change 1994/95-2005/06	**0.8**	**6.1**	**3.1**	**4.3**	**12.6**	**11.1**
Honduras 2005-06	10.8	38.8	54.4	12.3	45.4	64.0
Honduras, 1996	7.9	36.8	55.8	10.4	44.1	63.1
Change 2005/06-1996	**2.9**	**2.0**	**-1.4**	**1.9**	**1.3**	**0.9**
Paraguay 2008	1.8	17.0	33.7	8.1	47.8	76.6
Paraguay 1990	3.1	24.2	40.5	5.3	38.6	60.8
Change 1990-2008	**-1.3**	**-7.2**	**-6.8**	**2.8**	**9.2**	**15.8**
Peru 2009	3.4	19.0	34.2	7.1	38.7	61.1
Peru 1986	2.3	19.9	35.8	5.7	28.8	47.5
Change 1986-2009	**1.1**	**-0.9**	**-1.6**	**1.4**	**9.9**	**13.6**

Source: ICF Macro, "Demographic and Health Surveys, Measure DHS Statcompiler". Available from http://www.measuredhs.com [accessed 26 May 2011]; for first marriage: Ministry of Health of Brazil, *Pesquisa Nacional de Demografia e Saúde da Criança e da Mulher (PNDS) 2006. Relatório*, table 2, Brasilia, 2008; for first intercourse: special processing of dataset; Salvadoran Demographic Association (ADS), *Encuesta National de Salud Familiar (FESAL), 2008. Informe final*, table 4.8, San Salvador, 2009; Paraguayan Centre for Population Studies (CEPEP), *Informe final de la Encuesta Nacional de Demografía y Salud Sexual y Reproductiva (ENDSSR), 2008*, table 4.7, Asunción, 2008; National Institute of Statistics and Informatics (INEI), *Encuesta Demográfica y de Salud Familiar (ENDES). Continua, 2009. Informe principal*, table 5.5 for first marriage and table 5.7 for first intercourse, Lima, 2009.

In summary, although young people are becoming sexually active at an earlier age, they are not forming consensual unions any earlier, resulting in a growing period of exposure to the risk and reality of adolescent motherhood outside of a consensual union, as reflected in the rise in single adolescent mothers.[xv]

4. Contraception

Both menarche and first intercourse are occurring at an earlier age, and if these trends are not to lead to an increase in adolescent motherhood, more adolescents must use contraception. The available data suggest that contraceptive use has indeed risen over the past two decades, largely because AIDS prevention programmes have led to a greater use of condoms (Rodríguez, 2009). Nevertheless, contraceptive use among adolescents remains very low and is clearly insufficient to address the high levels of unwanted fertility recorded in the region, a topic that will be analysed in depth in the next section.

Table 4 illustrates one of the reasons behind the apparent contradiction between increased contraceptive use and a growing unmet need for contraception among adolescents. In all countries, the proportion of adolescent girls having been at some stage in a union who have never used contraception is falling sharply. In principle, this suggests greater protection from unwanted fertility. However, the protective impact is lower, because in most countries there has been a corresponding increase (although more moderate) in the proportion of adolescent girls who are or have been in a union who began to use contraception after having their first child. This finding illustrates the drawbacks of taking current contraceptive use as a measure of protection against unwanted pregnancy since sexual initiation. A better indicator, which concerns all sexually initiated teenage girls, rather than only those who have been in a union, is examined below.

TABLE 4. LATIN AMERICA: WOMEN AGED 15 TO 19 YEARS IN OR HAVING BEEN IN A UNION WHO HAVE NEVER USED CONTRACEPTION OR WHO BEGAN TO DO SO AFTER THE BIRTH OF THEIR FIRST CHILD, SURVEYS FOR 1980S/1990S AND 2000-2010, BY COUNTRY

(Percentage of all women aged 15 to 19)

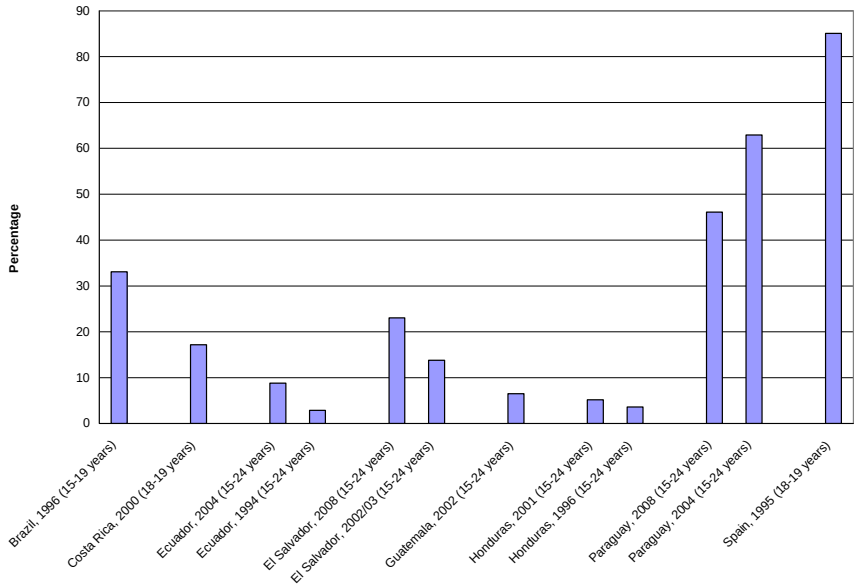
Country and survey year	Never used	After first child	Never used + After first child
Bolivia (Plurinational State of) 2008	35.0	27.2	62.2
Bolivia (Plurinational State of) 1989	72.6	17.2	89.8
Brazil 2006	3.6	6.4	10.0
Brazil 1986	30.9	27.8	58.7
Colombia 2010	8.0	26.5	34.5
Colombia 1986	53.5	22.8	76.3
Dominican Republic 2007	17.6	23.8	41.4
Dominican Republic 1996	35.6	28.7	64.3
Ecuador 2004	26.6	34.1	60.7
Ecuador 1987	71.5	18.5	90.0
Guatemala 2002	67.6	21.6	89.2
Guatemala 1987	90.6	6.7	97.3
Haiti 2005-06	43.8	16.8	60.6
Haiti 1994-95	69.9	9.7	79.6
Nicaragua 2005-06			
Nicaragua 1998	40.6	25.5	66.1
Paraguay 2004	7.9	15.0	22.9
Paraguay 1990	48.5	17.7	66.2
Peru 2009	12.2	26.4	38.6
Peru 1986	60.0	15.8	75.8

Source: ICF Macro, "Demographic and Health Surveys, Measure DHS Statcompiler" available from http://www.measuredhs.com [accessed 26 May 2011]; Ministry of Health of Brazil, *Pesquisa Nacional de Demografia e Saúde da Criança e da Mulher (PNDS) 2006. Relatório*, table 7, Brasilia, 2008; Nicaragua: special processing of the database, 2005 and 2006; National Institute of Statistics and Informatics (INEI), *Encuesta Demográfica y de Salud Familiar (ENDES). Continua, 2009. Informe principal*, table 4.7, Lima, 2009.

The indicator "Use of contraception at first sexual intercourse" is systematically captured and published by International Reproductive Health Surveys for the 15-24 years age group.[xvi] Taking all contraceptive methods into consideration, there is a trend towards using contraception during first intercourse. Paraguay in particular stands out: contraceptive use increased from 24 per cent in 1995/96 to 72 per cent in 2008 (Paraguayan Centre for Population Studies, 2008). Over a similar period of time (1998-2008) it rose from 10 per cent to 28 per cent in El Salvador (Salvadorian Demographic Association, 2009), and in Ecuador it climbed from 5 per cent in 1994 to 14 per cent in 2004 (Centre for Population Studies and Social Development, 2004).

However, with the exception of adolescents in Paraguay, who have experienced a sharp decline in their fertility over the past 20 years, leading to levels that are currently among the lowest in the region, adolescents who use contraception during first intercourse are still a minority in all the other countries. When only modern methods are considered (pills, condoms[xvii] and injections), Paraguay is the only country with a level of contraceptive use of over 50 per cent among adolescents, which is still far below the almost 90 per cent recorded in Spain in 1995 (see figure 7). In fact, contraceptive use starting at sexual initiation is the fundamental reason why the adolescent fertility rate in Spain is around 10 per 1,000, or a seventh of the Latin America's rate, despite having a similar age at first intercourse as the region.[xviii]

Figure 7. Proportion of adolescents who used contraception at first sexual intercourse, selected countries



The reasons for not using contraception at first intercourse are relevant to sexual and reproductive health policies and programmes aimed at adolescents. The reasons given for not using contraception during first intercourse rarely include the desire for children; rather, they are far more commonly insufficient prevention and poor access to contraception. Insufficient prevention is the reason behind responses such as "Did not expect to have sex"—32 per cent in El Salvador in 2008 (Salvadorian Demographic Association, 2009), "Carelessness"—44 per cent in Paraguay in 2008 (Paraguayan Centre for Population Studies, 2008) and "Was irresponsible"—28 per cent in Chile in 2009 (National Institute for Youth, 2009). [xix] Lack of access is reflected in responses such as "Did not know what methods were available"—15 per cent in Paraguay and in El Salvador, "Partner didn't want to"—8 per cent in El Salvador, "Could not get any"—9 per cent among women and 16 per cent among men in Chile. The proportion of adolescents who mentioned the desire to have children as a justification for not using contraception during first intercourse ranged from 12 per cent in El Salvador, to 6 per cent in Chile and 5 per cent in Paraguay. For Paraguay, El Salvador and Ecuador, a distinction is made between first intercourse within a union and first intercourse outside a union,[xx] since the reasons for not using contraception vary significantly in each case: in couples who are

married or in a union, the desire to have children is stronger. In fact, it is the main reason cited in El Salvador in 2008.

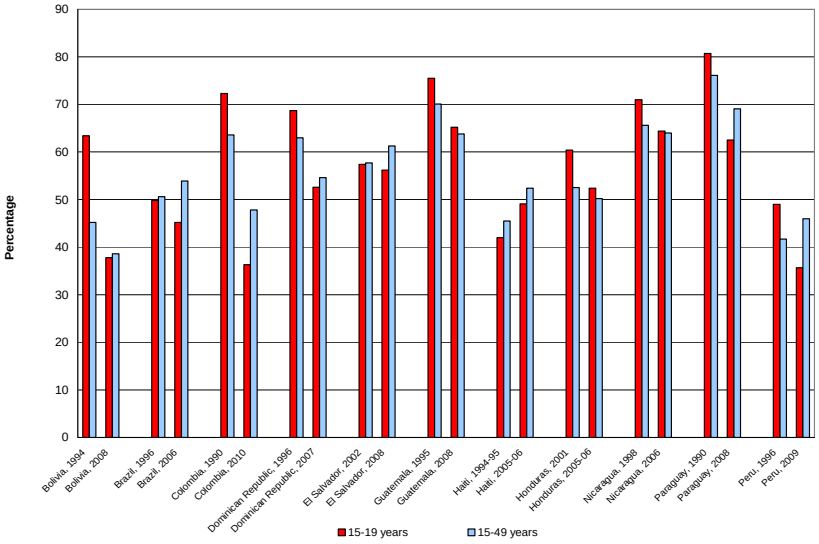
These results confirm the complex interaction between sexual activity, union and pregnancy in adolescence. On the one hand, sexual activity prior to union is increasing, which in principle limits the relevance of union as an explanation for teenage fertility. On the other hand, a small but significant proportion of Latin American girls form a union at an early age, in particular girls from low-income families, as will be seen later. Many of them have explicit expectations of early reproduction, and the beginning of the union does signal that pregnancy will probably follow soon after. This is particularly true in cultures where early unions are the norm, as in many indigenous communities. But it also applies to some poor urban teenage girls, who view forming a union and having a family as a way to acquire an identity, a home and a sense of purpose in an environment that offers few alternatives.[xxi]

D. Unwanted Fertility and Sexual and Reproductive Rights

Studies and researchers in Latin America have traditionally suggested that adolescents want to have children and that in particular, they want to do so more than at other ages.[xxii] The arguments underpinning this proposal range from demographics (first order births are more desired and most births to teenage mothers are first order births) to anthropology (cultural norms prize early reproduction) and sociology (early motherhood is seen as an option that provides meaning and a life plan, particularly in contexts where there are few or no alternatives (Oliveira and Vieira, 2010; Binstock and Pantelides, 2006; United Nations Population Fund, 2005; Stern, 1997).

These arguments are not supported by the current evidence. Figure 8 is unequivocal in this respect. It shows how the desirability of children born in the five years prior to each survey has changed over time among adolescents and among all women between the ages of 15 and 49 years. Surveys conducted during the 1980s and 1990s do bear out the greater desirability hypothesis. In all countries, the percentage of births described as "wanted then" was higher for births before the age of 20. But more recent surveys, carried out during the first decade of the twenty-first century, point to (i) a systematic and considerable drop in some countries in the desirability of children conceived during adolescence; (ii) lower levels of desirability for births during adolescence compared to all births in most countries.

Figure 8. Proportion of births that were said to be "wanted then", by mother's age, selected countries



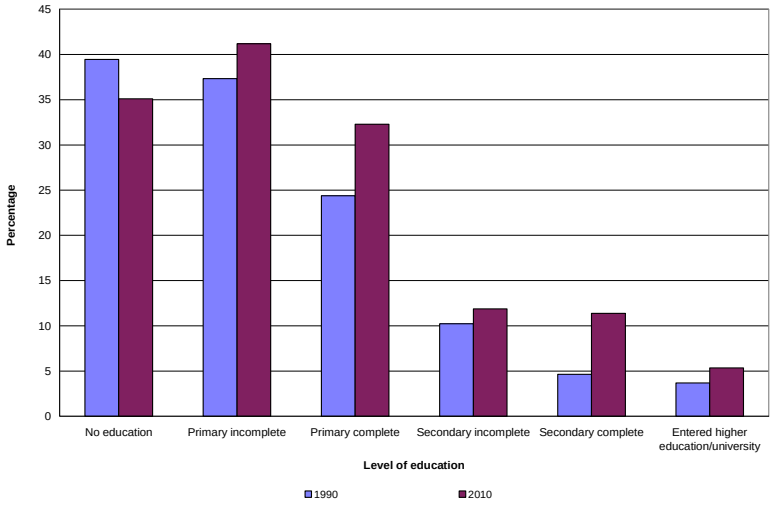
These findings are highly relevant for policy decisions, since they signal a greater need for sexual and reproductive health services, in particular access to contraception, and suggest that there is considerable scope for programmes promoting preventive behaviour with regard to teenage pregnancy. In the 1960s, the high levels of unwanted fertility detected by the surveys on fertility in Latin America (PECFAL) among women from a number of Latin American cities (Latin American Demographic Centre/Community and Family Study Centre, 1972) served as a justification for establishing family planning programmes in the region. The evidence regarding the decline in desired births among teenage mothers is a powerful argument for stepping up reproductive and sexual health public policies and programmes for this age group.

E. Early motherhood in Latin America: An expression of long-standing, sharp social inequalities

National averages tend to hide sharp social inequalities, especially in Latin American countries. This is undoubtedly the case for adolescent fertility, because it is highly correlated with educational level and social standing. In fact, the most recent results from specialized surveys in the region suggest that this relationship persists, as girls with low levels of education continue to have a much higher probability of becoming mothers during adolescence. Furthermore, in most countries, the differences between educational groups with regard to adolescent motherhood are much greater than the disparity recorded in the total fertility rate. The region's success in tackling disparities in the number of children that women have is overshadowed by the persistent disparity in reproductive timing, as women in disadvantaged groups continue to start their reproductive life much earlier (Jimenez and Rodríguez, 2009; Economic Commission for Latin America and the Caribbean, 2005).

The close correlation between education and adolescent motherhood has raised hopes that the predicted expansion in access to secondary and university education in the region will be accompanied by a sustained decline in adolescent fertility. Figure 9 illustrates this effect and draws on new data from the 2010 Panama census. The census shows that 16 per cent of girls aged between 15 and 19 were mothers in 2010, less than the 17 per cent recorded in 2000. However, when this percentage is disaggregated by educational level, an increase in all categories is observed, with the exception of the group with "No education" (see figure 9). The compositional effect is the reason for these opposing trends. If there had been no expansion in schooling between 1990 and 2010, during which the proportion of adolescents with below secondary education fell from 34 per cent to 17 per cent, the adolescent motherhood rate would have been 21 per cent in 2010, far higher than the 16 per cent recorded that year.

Figure 9. Proportion of girls aged 15 to 19 years who are mothers, by education level, Panama 1990 and 2010



Panama's experience is not unique. Figure 10 illustrates how, when the data are disaggregated by level of education, adolescent motherhood has risen almost across the board in most countries of the region. The fact that the trend observed in the national proportion of teenage motherhood is less clear-cut (as seen in table 1 and figure 5) is due to the compositional effect arising from the declining proportion of adolescents with low levels of education, who, as shown earlier, continue to experience far higher levels of adolescent motherhood than highly educated adolescents.

Figure 10. Change in the proportion of adolescent girls who are mothers, selected countries

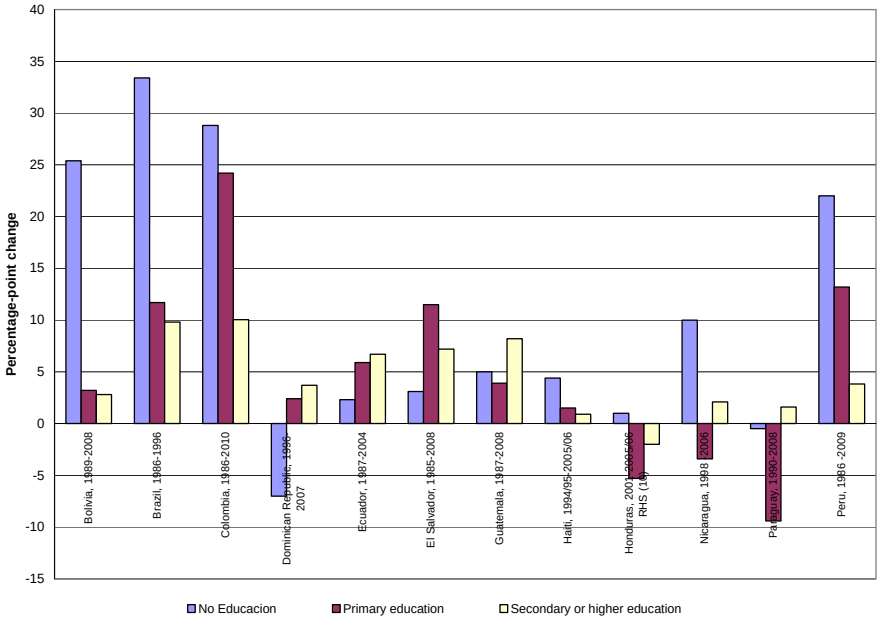


Figure 9 sounds an alarm bell for Latin America. Without a doubt education continues to be a factor protecting against teenage motherhood, but its effectiveness has declined and, most importantly, the educational threshold needed to ensure a close-to-zero probability of adolescent motherhood has risen from secondary school to tertiary/university level. This is much more marked in countries where secondary education is already very extended, and where socio-economic disparities in these countries are increasingly expressed as a distinction between adolescents who enter higher education and those who do not. In countries where only a minority of adolescents have access to secondary education, attaining this level still entails a sudden drop in the likelihood of becoming a teenage mother.

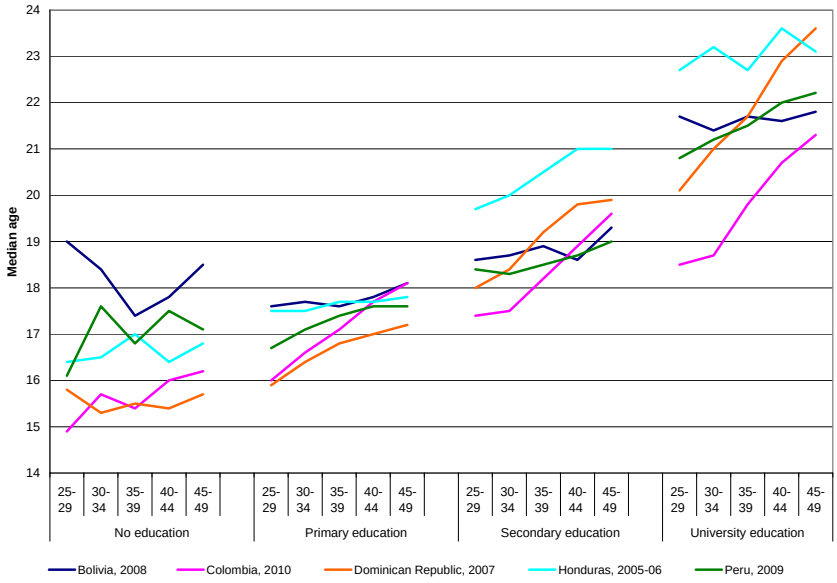
Given that progress towards providing universal secondary education in Latin America has not been accompanied by improvements in the job market, and that social inequality has persisted (Economic Commission for Latin America and the Caribbean, 2010), a non trivial proportion of the educated teenage population has low expectations regarding the benefits and opportunities that these extra years of study will bring. In this context, structural change in the form of a more egalitarian society that offers adolescents and young people more opportunities would surely foster a decline in the region's high teenage fertility rate.

In addition, school has become not only the place where education is imparted, but also the main place for socialization during adolescence. This is where the teenagers meet their peers, learn how to relate to the opposite sex, and often make their first romantic and sexual forays. However, neither society nor schools themselves have adapted to this new reality. Both the family and the health sector fail sometimes to acknowledge that teenagers are sexual beings, and maintain barriers in the way of access to contraception. Even sex education, which should be a fundamental part of the education provided by a modern school, is limited to a mostly "biological" approach, which is not always supportive for teenagers to develop effective preventive behaviour.

Schools in Latin America are therefore presented with great challenges. These must be faced on the basis that merely imparting knowledge and rules to students is not enough if they are expected to act in a healthy, safe, well prepared and self-determined way.

Finally, inequality is also observed in the proximate determinants. For first intercourse, figure 11 confirms the familiar pattern: the most disadvantaged groups report an early first sexual experience, largely because they form a union at younger ages. However, figure 11 also illustrates a fact that had not been observed in the region until now: the trend towards social convergence of the age at first intercourse. The figure clearly shows that there has been a sharp fall in the age at first intercourse among women with university-level education, but much less so in the case of girls with a low level of education. Over the medium term, the social disparity of first intercourse may become less acute and less important as a determinant of social inequality in adolescent motherhood. In fact, this is already happening in Chile, according to the Sixth National Youth Survey of 2009. In any case, in addition to the age at first intercourse, whether it occurs within a union or not is also important. If the age of first intercourse among poor girls continues to be linked to being or entering a union, the probability of it resulting in pregnancy will remain high.

Figure 11. Median age at first sexual intercourse by level of education and age-group, selected countries



The other key proximate determinant is contraception. According to the latest surveys available, even if all contraceptive methods are included (that is, even traditional methods, which are far less effective and more commonly used among underprivileged groups), the disparities continues to be great (see table 5). Thus, sexual and reproductive health policies and programmes should in general facilitate access to contraception for all adolescents who need it when they become sexually active, given that protected first intercourse is low and unwanted teenage fertility is on the rise. These policies and programmes should, at the same time, pay particular attention to the poorest groups in the population, where nearly all first intercourses are unprotected.

TABLE 5. LATIN AMERICA: WOMEN AGED 15 TO 24 YEARS WHO USED CONTRACEPTION AT FIRST INTERCOURSE, BY COUNTRY
(Percentage of all women aged 15 to 24)

Socio-economic level	El Salvador 2008	Ecuador 2004	Chile 2009 [a]	Honduras 2001 [b]	Paraguay 2008 [b]
Very low	11.5	6.6	38.10	4.2	55.6
Low	23.8	11.1	50.37	N/A	N/A
Middle	28.8	11.5	58.74	8.6	75.0
High	34.7	17.0	75.77	N/A	N/A
Very high	48.7	29.0	75.61	17.9	83.1

Source: Centre for Population Studies and Social Development (CEPAR), Informe final de la Encuesta Demográfica y de Salud Materna e Infantil (ENDEMAIN) 2004, table 14.3, Quito, 2004; Salvadoran Demographic Association (ADS), Encuesta National de Salud Familiar (FESAL), 2008. Informe final, table 7.9, San Salvador, 2009; Ministry of Public Health, Encuesta Nacional de Epidemiología y Salud Familiar 2001 (ENESF-01), table 7.9, 2002; Paraguayan Centre for Population Studies (CEPEP), Informe final de la Encuesta Nacional de Demografía y Salud Sexual y Reproductiva (ENDSSR), 2008, table 7.7, Asunción, 2008 and special processing of data from National Institute for Youth, Chile (INJUV), Sexta Encuesta Nacional de Juventud (ENAJU), 2009.

[a] National socio-economic classification.
[b] Only three socio-economic groups: low, middle and high.

F. POLICY IMPLICATIONS AND RESEARCH CHALLENGES

In the absence of a sustained increase in contraceptive protection during adolescence, teenage fertility in Latin America will likely remain stubbornly high, since the trend toward an earlier age at menarche and at first intercourse are not easy to reverse. Moreover, unwanted fertility will probably continue to rise among adolescents because the desire to have children during adolescence is declining while a growing percentage of sexual activity is beginning and continuing outside a union, without a reproductive intention.

As a result, public policies and programmes that aim to provide adolescents with universal access to comprehensive sex education, as well as relevant sexual and reproductive health services, are needed. The first important decision adolescents concerns first intercourse, and comprehensive sex education should strengthen the ability of adolescents to make well-informed and considered decisions. In addition, merely distributing contraception is ineffective because adolescents also need instruction, advice and empowerment if they are to use contraception regularly and effectively.

In terms of research, several topics which have not been mentioned in this paper or only in passing still require more attention. These include the specificities of indigenous communities and other ethnic groups, and the behaviour of men in the context of adolescent motherhood. Some research has explored these questions in the region and elsewhere,[xxiii] but these studies have only scratched the surface. Abortion is also a notable absence, since sources of good quality data on abortion remain scarce.

At least three other subjects analysed in this paper require in-depth research in the future. The first is the inequality that persists in both adolescent reproduction and its intermediate variables. The second is the young entry into union, which is directly linked to inequality (the poor and indigenous people are much more likely to form such unions) and the reproductive preferences of these population groups. Finally, there is the matter of social institutions such as the family, the health sector, the media and schools, whose actions and omissions have a direct impact on adolescent behaviour (Rodríguez, 2009).

This paper gave special attention to the role of education and schools to highlight the contradiction between what they currently offer and the new risk factors of adolescent motherhood, and to stress the ability of the "school", a shorthand for the educational system and curricula, to provide comprehensive information to protect adolescents from unwanted fertility. This requires that schools, in particular secondary schools, respond to the emerging needs and concerns of students,

including sexuality education programs, including impulse control and affective development. The deep-rooted inequalities that persist in the region in the labour market and the economy as a whole conspire against the equalizing role of education, yet the school remains the key institution for education in the modern Latin American societies, and should offer a good-quality, comprehensive education to all.

NOTES

[i] There is ample, but not universal acceptance on these matters. Some researchers, for example, argue that adolescent fertility does not involve greater health risks, except for pregnancy of very young mothers (under the age of 15). Some experts also highlight the socio-economic and cultural roots of adolescent fertility in developing countries. Others, using data from the 1980s and 1990s have suggested that adolescents have high levels of desired fertility. Finally, some specialists reject the link between adolescent fertility and the reproduction of poverty, arguing that educational and political inequalities are the key drivers of poverty dynamics (Oliveira and Vieira, 2010; Binstock and Pantelides, 2005; Guzmán and others, 2001; Furstenberg, 1998; Stern, 1997).

[ii] Indeed, the adolescent fertility rate for females aged 15 to 19, became one of the indicators of Millennium Goal 5.B: "Achieve, by 2015, universal access to reproductive health" (Jimenez and Rodríguez, 2009), despite an appeal not to set quantitative fertility targets expressed in the Programme of Action of the International Conference on Population and Development (Cairo, 1994) (United Nations, 1994).

[iii] The term union is used in this paper to refer to consensual union or marriage.

[iv] This constraint is particularly important when second or higher-order births among adolescents decrease, but not first-order births, which is exactly what is happening in many Latin American countries (Rodríguez, 2009).

[v] The percentage of mothers in 2010 is even slightly lower than that recorded in 1990. A standardization exercise to control changes in the single age structure between the 1990 and 2010 censuses does not alter this relationship; in other words, the decrease is not due to age composition.

[vi] Teenage unions continue to be closely associated with adolescent motherhood, since the desire to start a family is often stronger once the couple begins to live together. However, the reverse is not uncommon, where a pregnancy arising within the context of a romantic relationship that has not been formalized and of partners not living together, prompts a union, which usually consists of a cohabitation without marriage.

[vii] A study which makes rigorous use of the information provided by the Demographic Health Surveys states that "The calendar contains no information about frequency of sexual intercourse or number of sexual partners, which is a major limitation. We therefore have no alternative but to consider time after loss of virginity as sexually active." (Ali and Cleland, 2005, p. 1177).

[viii] "Contraceptive prevalence should be defined as the proportion of sexually active, fecund women using contraceptives that does not overlap with the proportion experiencing postpartum amenorrhea." (Stover, 1998, p. 262).

[ix] This will in fact be condom use at first intercourse. The databases available already have this information, and condoms have become by far the most common form of contraception used during first intercourse in recent years, owing to AIDS prevention campaigns promoting its use.

[x] The best indicator would of course be the "Percentage of sexually active time protected by contraception" indicator, calculated by Ali and Cleland (2005) using data from Demographic and Health Surveys complete contraceptive histories. However, this indicator can be calculated only in countries with Demographic Health Surveys. Moreover, even with this sophisticated indicator, a distinction would have to be made between time protected before and after having the first child.

[xi] National Institute of Statistics (INE) (2010). *Estadísticas Vitales: Informe Anual 2008*, table 1.2.2.1-04, Santiago. Available online from: www.ine.cl/canales/menu/publicaciones/calendario_de_publicaciones/pdf/21_12_10/vit_08211210.pdf, 20.

[xii] Census data capture the following categories: married, single and in a consensual union. This ensures that single girls are not merged with girls in an informal union (as in vital statistics). In any event, the self-reporting of a girl as "single" in a census does not necessarily imply that the baby's father is absent, as she may maintain a relationship but not live with the baby's father. However, it is more likely than not that a single teenage mother is neither in a relationship with nor supported by the father of her child.

[xiii] "To the extent that attitudes among young people in Latin America are influenced by mass media messages emanating from North America and Western Europe, where levels of premarital sexual activity are much higher, the trend may be irreversible." (Ali and Cleland, 2005, p. 1183)

[xiv] Adolescent union is a more meaningful indicator of the risk of becoming a mother during adolescence than median age at first union or the singulate mean age at marriage (SMAM) indicator, both of which are used often in studies on marriage trends in Latin America (Castro and others, 2010).

[xv] "Because of pervasive declines in the protective effect of virginity, conception rates among single women in Latin America are rising. Contraceptive uptake, particularly of condoms, is increasing but not sufficiently to offset the decline in virginity." (Ali and Cleland, 2005, p. 1175).

[xvi] National surveys also compile these data. In Chile, the Sixth National Youth Survey (ENAJU) in 2009 recorded a figure of 59 per cent for protected first intercourse among girls aged 15 to 19.

[xvii] Demographic Health Surveys ask about condom use during first intercourse. The most recent results for women aged 15 to 19 are: Bolivia, 2008: 17 per cent (Ministry of Health and Sports, *EncuestaNacional de Demografía y Salud (ENDSA) 2008. Informe preliminar*, 2008, table 13.5, La Paz, p. 291); Brazil, 2006: 20 per cent (Ministry of Health of Brazil, *Pesquisa Nacional de Demografia e Saúde da Criança e da Mulher (PNDS) 2006. Relatório*, table 17, Brasilia, 2008, p. 186); Colombia, 2010: 55 per cent Association for Family Welfare (Profamilia), *Informe de la Encuesta Nacional de Demografía y Salud (ENDS) 2010*, table 12.16, Bogota, 2011, weighted data, p. 348; Dominican Republic, 2007: 29 per cent (Centre for Social and Demographic Studies (CESDEM), *República Dominicana. Encuesta demográfica y de salud 2007. Informe preliminar*, table 12.20, November 2007, p. 257); Honduras, 2006: 11 per cent (National Institute of Statistics (INE), *Informe de la Encuesta Nacional de Demografía y Salud (ENDESA) 2005-2006*, table 13.12, Tegucigalpa, December 2006, p. 241).

[xviii] United Nations estimates, available online at: http://esa.un.org/unpd/wpp/unpp/p2k0data.asp, accessed on 9 June 2011.

[xix] In the case of Chile 2009 (ENAJU), up to three reasons could be given. Percentages may therefore total more than 100 per cent.

[xx] First intercourse outside of a union does not mean casual sex. In the case of El Salvador in 2008, for example, 9 per cent of girls aged 15 to 24 who became sexually active before marriage declared their sexual partner to have been a boyfriend and only 1.5 per cent to have been a casual encounter (Salvadoran Demographic Association, 2009, table 7.7).

[xxi] Early union and reproduction do not always provide an identity, a home or a life plan. The evidence available tends to suggest the opposite. As single teenage mothers increases, so does the proportion of teenage mothers living with their parents, rather than setting up their own household.

[xxii] "….with few exceptions, the highest percentage of wanted, even planned, children are born to mothers in the 15-19 years age group." (Guzmán and others, 2001, p. 43; free translation).

[xxiii] Olavarría and Madrid, 2010; Del Popolo, López and Acuña, 2009; Rodríguez, 2009; Guzmán and others, 2001; Greene and Biddlecom, 2000.

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