Economic & Social Affa

Adolescent Fertility since the International Conference on Population and Development (ICPD) in Cairo



Department of Economic and Social AffairsPopulation Division

Adolescent Fertility since the International Conference on Population and Development (ICPD) in Cairo



DESA

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PREFACE

The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat is responsible for providing the international community with up-to-date and scientifically objective information on population and development. The Population Division provides guidance to the United Nations General Assembly, the Economic and Social Council and the Commission on Population and Development on population and development issues and undertakes regular studies on population levels and trends, including trends of fertility, nuptiality and family planning, changes in population policies and the interrelationships between population and development.

As part of its work on fertility, the Population Division monitors levels and trends in age and parity patterns of fertility, and its proximate determinants, such as marriage and contraceptive use, collects and analyses information on the relationship between fertility and development, and provides substantive support to intergovernmental processes at the United Nations on fertility, family planning and development.

This report presents new estimates of the levels and trends in adolescent fertility worldwide over the past 20 years and highlights key social and demographic factors underlying adolescent fertility. These factors include early marriage, the timing and context of first sex, contraceptive use and education. The period under review, from 1990-1995 to 2005-2010, coincides with assessments of progress in implementing the Programme of Action of the International Conference on Population and Development and the unfinished agenda of the Millennium Development Goals, both of which include a focus on reducing early childbearing, expanding access to reproductive health and investing in the human capital of girls. The data presented are from World Population Prospects: The 2012 Revision, the official United Nations publication of population estimates and projections, Country data are taken from the same report, other United Nations sources or national sources, as appropriate. The population estimates, which are prepared biennially by the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, provide the standard and consistent set of population figures that are used throughout the United Nations system as the basis for activities requiring population information. This report was written by Mr. Stephen Kisambira with inputs from Ms. Ann Biddlecom and Ms. Vladimira Kantorova and copy-editing by Ms. Natalia Devyatkin, all of whom are in the Fertility and Family Planning Section of the Population Division.

This report is available on the Population Division's website at www.unpopulation.org. For further information about this report, please contact the office of the Director, Population Division, Department of Economic and Social Affairs, United Nations, New York, 10017, by telephone (+1 212) 963-3179 or email at population@un.org.

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EXPLANATORY NOTES

The following symbols have been used in the tables throughout this report:

Two dots (..) indicate that data are not available or are not reported separately.

A hyphen (-) indicates that the item is not applicable.

A minus sign (-) before a figure indicates a decrease.

A full stop (.) is used to indicate decimals.

Use of a hyphen (-) between years, for example, 1995-2000, signifies the full period involved.

Numbers and percentages in tables do not necessarily add to totals because of rounding.

References to countries, territories and areas:

The designations employed and the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

The designations "developed" and "developing" regions are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process. The term "country" as used in this publication refers, as appropriate, to countries, territories or areas.

Developed regions comprise all regions of Europe plus Northern America, Australia/New Zealand and Japan. The term "developed countries" is used to designate countries in the developed regions.

Developing regions comprise all regions of Africa, Asia (excluding Japan) and Latin America and the Caribbean, as well as Melanesia, Micronesia and Polynesia. The developing regions are further divided into least developing countries and other developing countries. The term "developing countries" is used to designate countries in the developing regions.

As of June 2013, the group of least developed countries or areas comprised 49 countries: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia. These countries or areas are also included in the developing regions.

Names and compositions of geographical areas follow those of "Standard country or area codes for statistical use" (ST/ESA/STAT/SER.M/49/Rev.4), available at http://unstats.un.org/unsd/methods/m49/m49.htm.

The following abbreviations have been used:

| DHS | Demographic and Health Survey |
|------|-----------------------------------|
| MICS | Multiple Indicator Cluster Survey |
| RHS | Reproductive Health Survey |
| SAR | Special Administrative Region |
| TFYR | The former Yugoslav Republic of |

EXECUTIVE SUMMARY

Reducing adolescent fertility and addressing the multiple factors underlying it are essential for improving sexual and reproductive health and the social and economic well-being of adolescents. This report presents new estimates of the levels and trends in adolescent fertility worldwide over the past 20 years and highlights key social and demographic factors underlying adolescent fertility. These factors include early marriage, the timing and context of first sex, contraceptive use and education. The period under review, from 1990-1995 to 2005-2010, coincides with assessments of progress in implementing the Programme of Action of the International Conference on Population and Development and the unfinished agenda of the Millennium Development Goals, both of which include a focus on reducing early childbearing, expanding access to reproductive health and investing in the human capital of youth, especially girls.

The major findings of this report are:

- The decline in the adolescent birth rate since 1990 is almost universal. Adolescent fertility declined in almost all 196 countries or areas with populations of at least 90,000. The reduction in adolescent childbearing occurred amidst an increase in school participation, an increase in the demand for contraception and a decrease in the proportion of adolescents who were ever married.
- Yet adolescent fertility is still high in many developing countries. The adolescent birth rate (ABR), measured by the annual number of births per 1,000 women aged 15-19 years, is high (greater than 80 births per 1,000 women aged 15-19) in many regions, ranging from 111 births per 1,000 women aged 15-19 years in Eastern Africa to 124 in Western Africa and 144 in Middle Africa. In subregions where the overall ABR is moderate (19 to 80 births per 1,000 women aged 15-19), there are countries with high adolescent birth rates: Afghanistan, Bangladesh and Nepal (South-Central Asia); Dominican Republic (Caribbean); El Salvador, Guatemala, Honduras, Nicaragua and Panama (Central America); and Ecuador, French Guiana, Guyana, and Venezuela (South America). Countries with low adolescent fertility (less than 19 births per 1,000 women aged 15-19) are concentrated in Europe and Northern America (54 per cent of all countries with a low ABR) and Asia (38 per cent). There are no low-ABR countries in sub-Saharan Africa or Latin America and the Caribbean.
- Adolescent fertility is declining more slowly than total fertility in some regions. Although total fertility has declined in almost all countries of the world since the 1990s, in many countries adolescent birth rates have declined at a slower pace than total fertility. The proportionate decline in adolescent fertility was slower than or equal to that of total fertility in Eastern Africa, South-Eastern Asia, Western Asia, Central America and South America, and Melanesia. It exceeded that of total fertility in all subregions of Africa (except for Eastern Africa), all subregions of Asia (except for Eastern Asia and South-Eastern Asia), all subregions of Europe, Northern America, and all subregions of Oceania (except for Melanesia).
- Early marriage remains a strong factor underlying adolescent fertility. Adolescent fertility is high in countries where the proportion of ever-married adolescents is high. Twenty per cent or more of female adolescents aged 15-19 have ever been married in 31 out of 103 countries with available data, among which the ABR is high (greater than 80 births per 1,000 women aged 15-19) in 22 African countries, two Asian countries (Bangladesh and Nepal) and three Latin American and Caribbean countries (Dominican Republic, Honduras and Nicaragua). There are six countries where adolescent fertility is high despite having low proportions (less than 20 per cent) of ever-married adolescent females. Three of these countries are in Africa

(Kenya, Lesotho and Swaziland) and three are in Latin America and the Caribbean (Ecuador, El Salvador and Guyana). The data suggest that, in these countries, many births occur among unmarried adolescents.

- Within a short period of time in adolescence, there is a rapid progression to sexual activity and marriage. Survey data from 42 countries show that the proportion of young women aged 20-24 who have had sex or are married by age 18 is more than twice the proportion of those who have had sex by age 15, indicating a rapid progression, within a mere three years, in sexual initiation and marriage. Less than 30 per cent of young women have had sex by age 15 in the majority of countries with either high or medium levels of ABR. By age 18, more than 60 per cent have had sex in the majority of these countries. A similar pattern of rapid progression is shown for marriage. In the majority of countries where adolescent fertility is high, more than 50 per cent have married by age 18, up from less than 20 per cent who have married by age 15. In countries with a medium level of adolescent fertility, the percentages increase from less than 10 per cent of women married by age 15 in almost all countries with available data to between 30 and 60 per cent of women married by age 18.
- There are adolescents who are sexually active before entering into marriage in nearly every country. Initiation of sexual activity before marriage is more common than sexual initiation within marriage in 22 out of 36 countries with available data, and there is little difference in the levels of premarital sexual activity by age 20 between young women in high-ABR countries and their peers in medium-ABR countries. However, between the two groups of countries, there are large differences in the proportion of young women whose sexual debut is within marriage. The median proportion of women aged 20-24 whose sexual initiation was within marriage before age 20 years is 38 per cent among high-ABR countries compared to 23 per cent among the medium-ABR countries.
- *Most adolescent childbearing occurs within marriage*. Even in countries where sexual initiation is common outside of marriage, most adolescent childbearing occurs within marriage. A larger proportion of young women who have a birth in adolescence do so within marriage rather than outside of marriage in 34 of 36 countries with available data.
- Yet it is not uncommon for first births that occur within marriage to be the result of premarital conceptions. Pregnancies that precede marriage and result in a birth within marriage are more common in Africa than in other regions. The median proportion of adolescent women whose first birth occurs within seven months following union formation is 18 per cent, among the 48 countries with available data. The proportion of adolescents who give birth to their first child within seven months following union formation ranges from 3 to 39 per cent in 27 African countries, compared to 9 to 29 per cent in six Latin American and Caribbean countries, 1 to 25 per cent in 12 Asian countries, and 4 to 20 per cent in three European countries. The data indicate a relatively high level of premarital conceptions, and suggest that many female adolescents marry earlier than they might have expected as a result of premarital conception.
- Not all childbearing in adolescence is intended. Pregnancies or births are classified as unintended if they occurred sooner than wanted or were not wanted at all. The proportion of unintended births is higher in high-ABR (median of 30 per cent) than in medium-ABR countries (median of 16 per cent). The majority of unintended births occur earlier than they are wanted rather than not being wanted at all. The high levels of unintended pregnancy and childbirth among adolescents are due, in part, to barriers in accessing and using contraception and to a lack of adequate information about pregnancy prevention.

- Higher levels of adolescent fertility are associated with a higher proportion of demand for family planning that is unsatisfied. Unsatisfied demand for family planning represents the proportion of total demand for contraception that is "not met", that is, those who want to avoid or postpone childbearing but are not using any method of contraception. In 23 out of 41 countries with available data—18 of which are in sub-Saharan Africa—the proportion of demand that is unsatisfied is more than 50 per cent among female adolescents. The proportion of demand that is unsatisfied is lower in medium-ABR countries than in high-ABR countries for both married and sexually active unmarried adolescents. However, the proportion of demand that is unsatisfied is higher among female adolescents who are married than among their sexually active unmarried peers in 21 out of 32 countries.
- High levels of condom use among sexually active unmarried adolescents may account for lower unsatisfied demand for family planning compared with married adolescents. Larger proportions of sexually active unmarried women use the condom than the pill, whereas a larger proportion of married adolescents use the pill than the condom. In the past two decades, condoms have been promoted as a means of disease prevention, with emphasis on their use outside marriage. Condoms are increasingly being used for contraceptive purposes but more so among unmarried than married adolescents.
- Higher levels and longer durations of schooling for girls are linked to lower levels of adolescent childbearing. Countries that scored worse on three different dimensions of schooling—the survival rate for females to the last grade of primary school, school life expectancy for girls from primary to secondary and the out-of-school rate among girls of lower secondary school age—tended to have much higher rates of adolescent childbearing compared with countries that scored better on these schooling indicators. The majority of countries where school life expectancy is short and adolescent fertility is high are in Africa. Out-of-school rates for girls of lower secondary school age are also highest in Africa. However, there are some countries in Africa (Cabo Verde, Kenya and Namibia) and Latin America and the Caribbean (Bolivia, Colombia, Dominican Republic and Venezuela) where the adolescent birth rate is high despite low out-of-school rates for girls.

INTRODUCTION

Adolescence is a period of key transitions in life within a short period of time. Chief among these transitions for many girls are the start of sexual activity, marriage and childbearing. Concerns about adolescent childbearing include its association with heightened health risks for mothers and their infants and lower educational attainment and persistent poverty among women who become mothers during early adolescence. This report presents new estimates of the levels and trends in adolescent fertility worldwide since the 1990s and highlights key social and demographic factors underlying adolescent fertility.

Sexual activity at an early age, before girls have adequate information on potential health risks, self-protection skills or full access to reproductive health services, puts girls at an elevated risk of sexual and reproductive health and childbearing problems. Young women are particularly vulnerable to sexual violence and coerced sex (United Nations, 2004; Song and Ji, 2010; Andersson et al., 2012; Santhya et al., 2011), unintended and unwanted pregnancy, and abortion (Murray et al., 2006; Koenig et al., 2004; Gómez et al., 2008). Pregnancy is the leading cause of death for adolescent females in many developing countries (World Health Organization, 2012), with adolescent mothers twice as likely to die from pregnancy-related complications as mothers aged 20 years and above (Conde-Agudelo et al., 2005; Patton et al., 2009). Adolescent mothers are more likely to suffer severe complications during delivery, while the children of young mothers have higher levels of morbidity and mortality. Compared to older mothers, adolescent mothers are also less likely to utilize health care services before, during or after delivery (Defo, 2011) and they are more likely to initiate antenatal care late, deliver outside health facilities and rely on an unskilled birth attendant (Magadi et al., 2007). Young women are particularly more vulnerable to the negative consequences of induced abortion compared to older women. They are most likely than older women to present late for abortion (Lim et al., 2012) and to have repeat abortions (Collier, 2009). It is estimated that worldwide three million girls aged 15-19 undergo unsafe abortions every year (World Health Organization, 2012).

Early childbearing is likely to put a young mother on a lifelong path with different choices and opportunities than if she were to postpone her first birth to a later age. She is likely to have more births because of exposure to a longer period of childbearing. Early childbearing may also put a premature end to a young woman's schooling and threaten her economic prospects, earning capacity and overall well-being. Young mothers may pass on to their children a legacy of poor health, deficient education and meagre means of living, creating a hard-to-break cycle of poverty (United Nations, 2004). Studies have found repetition of early childbearing across generations; daughters of teenage mothers are more likely than daughters of adult mothers to begin childbearing early (Almeida and Aquino, 2009; Buvinic, 1998; Kearney and Levine, 2009). At the population level, recent estimates by the World Bank show that the lifetime opportunity cost of adolescent pregnancy for national economies—measured by the young mother's foregone annual income over her lifetime—range from one per cent of gross domestic product (GDP) in China to 30 per cent in Uganda (Chaaban and Cunningham, 2011).

An early onset of childbearing also results in a young population age structure, a shorter average span between generations and more rapid population growth due to population momentum, than when childbearing is delayed. When successive age cohorts of women begin their childbearing earlier and space their births close together, relatively large cohorts of children enter their reproductive years and bear children. Population momentum in high-fertility countries is the tendency for population to continue growing even if fertility dropped immediately to replacement level¹ as relatively large cohorts at young ages move through their childbearing years. Population momentum is primarily the result of a young

¹ Replacement-level fertility is the level that needs to be sustained over the long run to ensure that a population replaces itself. For most countries having low or moderate mortality levels, replacement level is close to 2.1 children per woman.

population age structure and has been estimated to account for about half of the developing world's population growth in the twenty-first century (Bongaarts, 1994). Delaying childbearing is one of the key options that can reduce the impact of population momentum (Bongaarts, 1994).

Nearly 20 years ago the Programme of Action of the 1994 International Conference on Population and Development (ICPD) highlighted the importance of reducing adolescent pregnancy and the multiple factors underlying adolescent fertility, and recommended key follow-up actions that Governments should take to substantially reduce adolescent pregnancies and to address adolescent sexual and reproductive health issues, including unwanted pregnancy, unsafe abortion and sexually transmitted infections. The Millennium Development Goals (MDGs), adopted in 2000, continue to emphasize the importance of expanding access to reproductive health (under MDG 5, on improving maternal health) and investing in the human capital of girls (under MDG 2, to achieve universal primary education and MDG3, to promote gender equality and empower women) as part of the global development agenda.

This report reviews the levels and changes in adolescent fertility worldwide, from 1990-1995 to 2005-2010, a time period that coincides with assessments of progress in implementing the ICPD Programme of Action and the unfinished agenda of the MDGs. The report is organized in four sections following this introduction. Section I reviews the levels and trends in adolescent birth rates (ABR) for each country or area in the world with a population of at least 90,000. Sections II and III provide information on key factors associated with adolescent fertility for selected countries with available data. These factors are early marriage, the timing and context of first sex, contraceptive use and education.

Data on global and regional levels and trends in the adolescent birth rate and total fertility are from *World Population Prospects: The 2012 Revision*, the official United Nations publication of population estimates and projections (United Nations, Department of Economic and Social Affairs, 2013a). Data for the recent period pertain to those available from 2005-2010.² For the earlier period, the data pertain to those available from 1990 to 1995. Country data are taken from the same report, other United Nations sources or national sources, as appropriate. The estimates prepared by the Population Division for the *World Population Prospects* revisions are based on reported estimates (including retrospective birth histories, direct and indirect fertility estimates). The *World Population Prospects* estimations procedure considers potentially as many types and sources of empirical estimates as possible, and the final estimates are derived to ensure as much internal consistency as possible with all other demographic components and intercensal cohorts enumerated in successive censuses. Data sources include registration data (if data are judged to be reliable and complete, that is, 90 per cent completeness of reporting total number of births), survey data and census data.

Data on factors associated with adolescent fertility are drawn mainly from surveys such as the Demographic and Health Surveys (DHS), the Reproductive Health Surveys (RHS) and Multiple Indicator Cluster Surveys (MICS), which provide internationally comparable information on the context in which adolescent reproductive behaviour occurs. Other sources include national surveys.

I. LEVELS AND TRENDS OF ADOLESCENT FERTILITY

A. Levels of adolescent fertility

Adolescent fertility is measured by the adolescent birth rate (ABR), which is the annual number of births to women 15 to 19 years of age per 1,000 women in that age group. For the purposes of this

2

² Only 17 countries or areas had data on adolescent fertility later than 2010 (United Nations, Department of Economic and Social Affairs, 2013b). Thus, estimates for the period 2005-2010 are used to reflect recent levels of adolescent fertility.

report, ABR is considered high when the number of births per 1,000 women aged 15-19 in 2005-2010 is above the third quartile of all countries (greater than 80 births per 1,000 women aged 15-19), medium where the ABR falls between the first and third quartiles of all countries (19 to 80 births) and low where the ABR is below the first quartile (less than 19 births per 1,000 women aged 15-19). Estimates are available for 2005-2010 for 199 countries or areas with populations of at least 90,000, of which 50 are categorized as low-ABR, 99 as medium-ABR countries, and 50 as high-ABR (figure 1).

In 2005-2010, the ABR per 1,000 women was 49 at the global level, 53 in the developing regions and 24 in the developed regions (figure 2). Africa has the highest ABR (104), more than double the global ABR, followed by Latin America and the Caribbean (73). Subregions of Africa (Eastern Africa (111), Middle Africa (124) and Western Africa (144)) and Latin America (Central America (77) and South America (73)) have five of the six top ABR levels among the 22 subregions of the world. Seventy-four per cent of the high-ABR countries are in Africa, 6 per cent are in Asia and 20 per cent are in Latin America and the Caribbean. There are no high-ABR countries in Europe, Northern America or Oceania.

Medium-ABR countries are represented in all major areas: 29 per cent are in Asia and 26 per cent are in Latin America and the Caribbean, followed by Europe and Northern America (26 per cent), Africa (17 per cent) and Oceania (12 per cent). However, there are countries with high adolescent birth rates (greater than 80 per 1,000 women aged 15-19) in subregions where the overall ABR is moderate: Afghanistan, Bangladesh and Nepal (South-Central Asia); Dominican Republic (Caribbean); El Salvador, Guatemala, Honduras, Nicaragua and Panama (Central America); and Ecuador, French Guiana, Guyana, and Venezuela (South America).

Countries with low adolescent fertility are concentrated in Europe and Northern America (54 per cent) and Asia (38 per cent). In Africa, the adolescent birth rate is low in Algeria, Libya and Tunisia. There is no low-ABR country in sub-Saharan Africa or Latin America and the Caribbean.

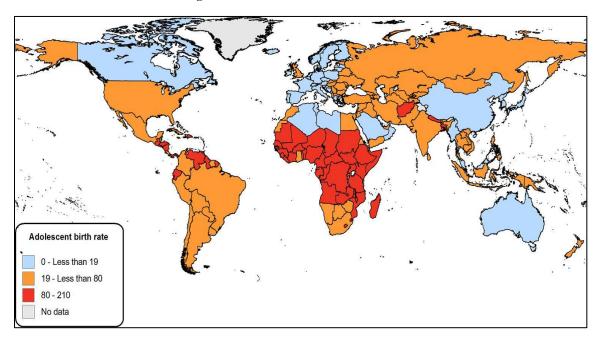


Figure 1. Adolescent birth rates in 2005-2010

Source: United Nations, Department of Economic and Social Affairs, 2013a
The boundaries on this map do not imply official endorsement or acceptance by the United Nations.

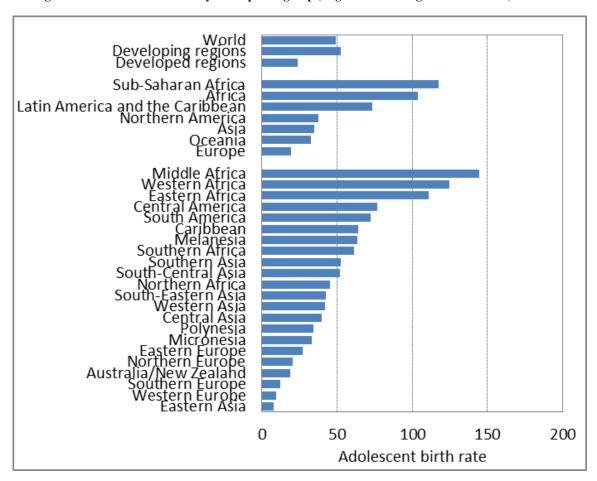


Figure 2. Adolescent birth rates by development groups, regions and subregions of the world, 2005-2010

Source: United Nations, Department of Economic and Social Affairs, 2013a

B. Trends in adolescent birth rates

Figure 3 shows the decline in adolescent birth rates among countries and by region between 1990-1995 and 2005-2010, a time period that includes the moments when the ICPD Programme of Action and the Millennium Declaration were adopted (United Nations General Assembly, 2000) and the target of universal access to reproductive health by 2015 (which includes the reduction of adolescent fertility) was added to the MDGs (United Nations General Assembly, 2005; United Nations, 2006). The markers below the diagonal line show countries where the adolescent birth rate has declined. The further below from the diagonal line, the greater the decline in the adolescent birth rate. The decline in the adolescent birth rate has been almost universal since 1990-1995 across major areas and countries. The decline was particularly dramatic in Asia. The adolescent birth rate declined by 50 per cent or more in four African countries (Algeria, Djibouti, Libya and Tunisia), 20 Asian countries or areas (Armenia, Bhutan, Hong Kong SAR, Macao SAR, Cyprus, Democratic People's Republic of Korea, India, Iran, Kyrgyzstan, Lebanon, Maldives, Mongolia, Oman, Pakistan, Qatar, Republic of Korea, Saudi Arabia, State of Palestine, Yemen and other non-specified areas), eight European countries (Albania, Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia and Slovenia), one country in Latin America and the Caribbean (Bahamas) and one country in Oceania (Kiribati). However, adolescent fertility is still very high in many countries, ranging between 140 to 210 births per 1,000 women aged 15 to 19 in Angola, Chad, Guinea, Liberia, Malawi, Mali, Niger, Uganda and Zambia (annex table A.1). The reduction in adolescent childbearing has been at a slower pace since 2000 compared with progress in the 1990s (United Nations, 2012).

250 Sub-Saharan Africa Adolescent birth rate in 2005-2010 200 ■ Northern Africa ▲ Asia 150 O Caribbean 100 Latin America Europe and 50 Northern America **X** Oceania 100 150 200 250 Adolescent birth rate in 1990-1995

Figure 3. Distribution of countries or areas according to adolescent birth rate in 1990-1995 and 2005-2010

Source: United Nations, Department of Economic and Social Affairs, 2013a

In addition, the cumulative global population of female adolescents living in medium-ABR and low-ABR countries (that is, where the ABR is less than 80 births per 1,000 women aged 15-19) increased from 62 per cent in 1990-1995 to 83 per cent in 2005-2010 (figure 4). In the developing regions, the cumulative population of female adolescents living in medium-ABR and low-ABR countries increased from 55 per cent to 80 per cent (annex figure 1). In the developed regions, where the ABR level was already well below 80 births per 1,000 women in 1990-1995, the cumulative population of female adolescents living in low-ABR countries increased from 37 per cent in 1990-1995 to 43 per cent in 2005-2010.

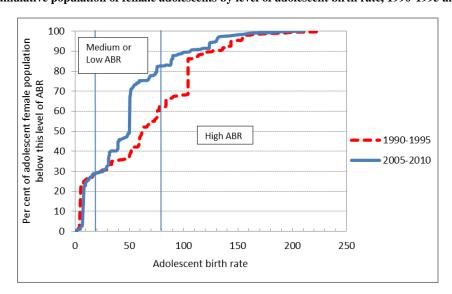


Figure 4. Cumulative population of female adolescents by level of adolescent birth rate, 1990-1995 and 2005-2010

Source: United Nations, Department of Economic and Social Affairs, 2013a

Table 1 shows the change in the number of countries from one level of adolescent birth rate to another between 1990-1995 and 2005-2010. In 1990-1995, adolescent birth rates were low in 29 countries, medium in 98 countries and high in 72 countries. Between 1990-1995 and 2005-2010, 20 countries changed from a medium ABR to low ABR, one country changed from a high ABR to low ABR and 23 countries changed from a high ABR to medium ABR. By 2005-2010, the number of countries with a low ABR had increased to 50 countries and the number of countries with a high ABR had decreased to 50.

Table 1: Distribution of countries or areas according to adolescent birth rate in 1990-1995 and 2005-2010

| | _ | ABR level in 2005-2010 | | | | |
|-------------|--------|------------------------|--------|------|-------|--|
| | | Low | Medium | High | Total | |
| ABR level | Low | 29 | - | - | 29 | |
| in 1990- | Medium | 20 | 76 | 2 | 98 | |
| | High | 1 | 23 | 48 | 72 | |
| 1995 | Total | 50 | 99 | 50 | 199 | |

Source: United Nations, Department of Economic and Social Affairs, 2013a

The annual decreases in adolescent birth rates and total fertility rates, from 1990-1995 to 2005-2010, by major areas, regions and countries are shown in annex tables A.2 and A.3. The measurement of the annual decrease is relative, that is, the difference in the rates between the respective periods divided by the rate in 1990-1995. The annual decline in the adolescent birth rate was at least 2 percentage points per year in Southern Africa, Northern America, Central Asia, Southern Asia, South-Central Asia, Western Asia and Eastern Europe. The slowest pace of decline (less than 1 percentage point per year) occurred in Eastern Africa, Middle Africa, Western Africa, Eastern Asia, Central America, South America and Melanesia. However, the regional estimates belie the variations among countries. For example, there are countries in Eastern Africa (Djibouti) and Northern Europe (Estonia, Latvia, Lithuania and Sweden), Southern Europe (Albania, Bosnia and Herzegovina, Serbia and Slovenia) and the Caribbean (Bahamas and Grenada) where the decline in the adolescent birth rate was more than 3 percentage points per year (annex table A.3). In Eastern Asia, the ABR decreased by more than 3 percentage points per year in six of the eight countries or areas while the ABR in Eastern Asia as a whole increased by 3 percentage points per year, largely as a result of increases in the populous low-ABR countries of Japan and China.

Although total fertility has declined in almost all countries of the world since the 1990s, in many countries adolescent birth rates have declined at a slower pace than total fertility. The proportionate decline in adolescent fertility was slower than or equal to that of total fertility in Eastern Africa, South-Eastern Asia, Western Asia, Central America and South America, and Melanesia. It exceeded that of total fertility in all subregions of Africa (except for Eastern Africa), all subregions of Asia (except for Eastern Asia and South-Eastern Asia), all subregions of Europe, Northern America, and all subregions of Oceania (except for Melanesia).

C. Contribution of the adolescent birth rate to total fertility

The contribution of the adolescent birth rate to total fertility (TFR) is the proportion of fertility in adolescence (PAF), measured as the age-specific fertility rate for age group 15-19 multiplied by five and divided by total fertility.³ For the purposes of this report, the contribution of ABR to TFR is considered

³ The proportion of fertility in adolescence represents the percentage of total fertility that would occur at ages 15 to 19 among a hypothetical cohort experiencing the current age-specific fertility rates over its reproductive lifetime. A high level of PAF indicates a high degree of early childbearing at a given point in time. A comparison of PAF over time and across countries can be misleading because its value depends on not only the level of adolescent fertility and that of total fertility but also on the pace of

high when the percentage of total fertility attributable to women aged 15-19 in 2005-2010 is greater than the median value (8.3 per cent) among all countries. It is deemed low where that proportion is less than the median value of all countries for the same period.

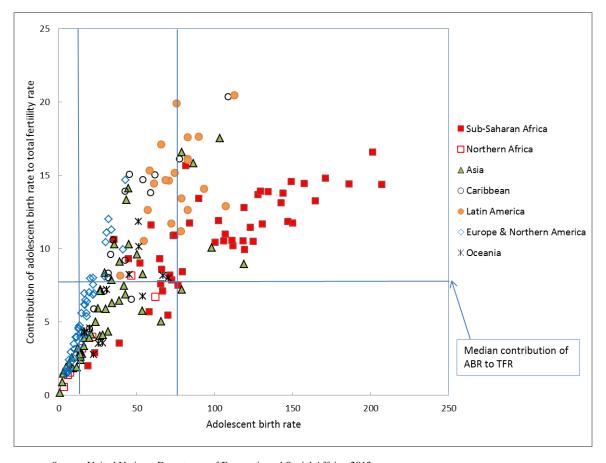


Figure 5. Adolescent birth rate and its contribution to total fertility, 2005-2010

 $Source: \ United \ Nations, \ Department \ of \ Economic \ and \ Social \ Affairs, \ 2013a$

Figure 5 shows the distribution of countries in 2005-2010 according to the percentage contribution of the adolescent birth rate to total fertility by geographical groups. The countries shown in figure 5 are listed in annex tables A.4 and A.5. The contribution of adolescent birth rate to total fertility is positively associated with the level of adolescent birth rate. In countries where adolescent birth rates are high, the contribution of ABR to total fertility is high compared to countries where adolescent birth rates are low. Thus, early childbearing is an important contributor to fertility in high-fertility settings. The contribution of ABR to total fertility is high in all of the high-ABR countries except Mauritania. It is also high in 8 of the 17 medium-ABR African countries, 12 of the 29 medium-ABR Asian countries, 5 of 14 medium-ABR countries in Europe and 22 of the 26 medium-ABR countries in Latin America and the Caribbean. It is also high in two (French Polynesia and Guam) of the 13 countries or areas in Oceania and in the United States of America. There is no low-ABR country or area in the world where the contribution of ABR to total fertility is high. The low contribution of ABR to total fertility in Mauritania indicates an age pattern of fertility where fertility is high at older ages.

fertility decline at older ages relative to adolescent fertility. The PAF may rise even when adolescent fertility is dropping or it will be lower in a country where fertility is high at all ages compared to a country where adolescent fertility is higher than fertility at older ages (United Nations, 2007).

The variation in the distribution of countries according to the contribution of ABR to total fertility is larger in medium-ABR countries, compared to the distribution of countries in the low-ABR and high-ABR countries, because countries in this category are at different stages of fertility transition. Fertility decline at the older ages is more advanced in some countries than others. Latin America and the Caribbean have the largest proportion of medium-ABR countries (85 per cent), where the contribution of ABR to total fertility is high, followed by Africa (47 per cent), Asia (41 per cent) and Europe (36 per cent). In fact, the pattern of early childbearing in many countries in Latin America and the Caribbean is distinct, where ABR contributes a relatively large share to total fertility and yet total fertility in these countries is at low to moderate levels. In Latin America, the factors that sustained the rapid decline in total fertility appear to have had limited effects on adolescent fertility (Rodríguez, 2011).

Figure 6 shows the distribution of countries and their regional groupings by adolescent birth rates and total fertility in 2005-2010. High levels of adolescent fertility (more than 80 births per 1,000 women aged 15-19) are associated with high levels of total fertility in a majority of countries in sub-Saharan Africa. Total fertility is above 4 children per woman in a majority of these countries where early childbearing is still part of long, continued childbearing throughout the reproductive period of women. In Latin America, however, high levels of adolescent fertility are associated with moderate levels of total fertility of between 2 and 4 births per woman. In these countries, fertility among older women is declining faster than adolescent fertility.

The association between ABR and total fertility is further examined by comparing the absolute change in ABR to the absolute change in total fertility between 1990-1995 and 2005-2010. For all countries shown in figure 7, a decline of 50 births per 1,000 women aged 15-19 is associated with a decline of 0.7 children per woman over the 15 year period. The largest decline in total fertility associated with the decline in ABR occurred among countries in Asia. A decline of 50 births per 1,000 women aged 15-19 is associated with a decline of 1.9 children per woman in Asia, 1.6 children per woman in Oceania, 1.4 children per woman in Latin America and the Caribbean, 1.2 children per woman in Africa, and 0.8 children per woman in Europe and Northern America. Although total fertility declined in a few countries where the ABR increased, the data indicate that the decline in adolescent fertility is key to fertility decline in the developing regions.

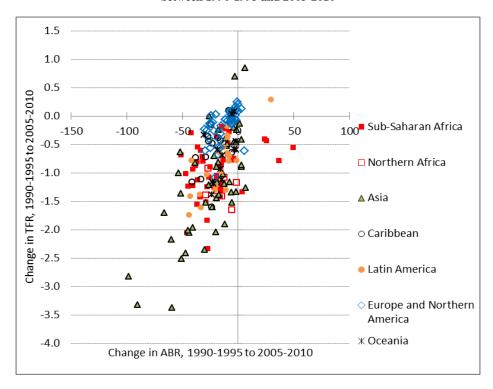
■ Sub-Saharan Africa 7 Δ 6 ■ Northern Africa Total fertility rate 5 ▲ Asia O Caribbean 3 Latin America Europe and Northern America **X** Oceania Medium ABR High ABR 0 50 200 250 0 100 150

Figure 6. Distribution of countries or areas according to the adolescent birth rate and total fertility, 2005-2010

Source: United Nations, Department of Economic and Social Affairs, 2013a

Adolescent birth rate

Figure 7. Distribution of countries or areas according to absolute change in the adolescent birth rate and total fertility between 1990-1995 and 2005-2010



Source: United Nations, Department of Economic and Social Affairs, 2013a

II. PROXIMATE FACTORS UNDERLYING ADOLESCENT CHILDBEARING: MARRIAGE AND CONTRACEPTIVE USE

A. Early marriage

The start of childbearing in adolescence is closely tied to early marriage. Adolescent females who marry early are likely to participate in arranged marriages, to marry older men, to have less decision-making power and communication with their husbands and to be in polygamous unions than adolescents who marry later (Santhya et al., 2010; Ochieng and Erulkar, 2008). Marriage can exert pressures and expectations upon adolescents, including the expectation of immediate pregnancy upon marriage. Adolescents who marry early are less likely than others to use contraceptives to delay a first pregnancy (Santhya et al., 2010) and, in general, married adolescents are less likely than unmarried adolescents to use modern contraceptives (Blanc et al., 2009).

A rising age at marriage could be the most critical factor in reducing adolescent childbearing. It is estimated that 90 per cent of adolescent births in the developing world occur within marriage (WHO, 2008). In countries where a majority of births occur within the context of marriage and consensual unions, births to adolescents will tend to decrease as the age at marriage rises and the proportion of ever-married adolescent females decreases. Efforts to reduce early marriage will also help reduce early childbearing in these settings. In Pakistan, where contraceptive use has stagnated in recent years, the decomposition of intervening factors and their contribution to fertility decline show that the principal determinant of fertility decline has been the unusually high and continuously rising female age at marriage (Sathar and Zaidi, 2011).

Data are available for 86 countries to assess the change in the percentage of ever-married women aged 15-19 between the periods 1990-1995 and 2005-2010. The comparison of marital composition over time and between countries can be challenging because the measurement of marriage may vary from one data source to another or from one country to another. For example, in settings where consensual unions are common, the omission or inclusion of those unions is likely to distort the comparison, across time and settings, of the association between adolescent marriages and adolescent fertility.⁴

Figure 8 shows the distribution of 86 countries according to the percentage of adolescents who are ever married in 1990-1995 and 2005-2010. The markers below the diagonal line show countries where the percentage of ever-married adolescents declined. The percentage of adolescent females who have ever married decreased in a majority of countries (60 out of 86 countries) and by at least 10 percentage points in six African countries (Burkina Faso, Cameroon, Ghana, Malawi, Sierra Leone and Uganda), in four Asian countries or areas (Maldives, Nepal, Oman and State of Palestine) and in Costa Rica in Latin America and the Caribbean. It increased by at least 10 percentage points in Guyana and Madagascar. However, the level of adolescent marriage is still high in many countries. At least one in five adolescents

10

⁴ Women in consensual unions are included in the ever-married data in 30 countries for the period 1990-1995 and in 37 countries for 2005-2010. For any given country, the inclusion of data on consensual unions for the earlier period and their exclusion for the later period will overestimate the decline in the proportion of ever-married women. Likewise, the inclusion and exclusion of such data in the later and earlier periods, respectively, will underestimate the decline in the percentage of ever-married women and will show, in some cases, an increase in the percentages ever married. In 10 of the 86 countries, data on consensual unions are included in 2005-2010 but excluded in 1990-1995. These countries are: Armenia, Azerbaijan, Ethiopia, Finland, Georgia, Iceland, Republic of Moldova, Uganda, Ukraine and Zimbabwe. In three countries (Denmark, Hungary and Japan), data on consensual unions are included for the earlier period, 1990-1995, but are excluded from the data in 2005-2010.

was ever-married in 2005-2010 in 31 out of the 103 countries, of which 25 countries were in Africa (figure 8).

70 60 Sub-Saharan Africa Per cent ever married in 2005-2010 ■ Northern Africa 50 ▲ Asia 40 O Caribbean 30 Latin America Europe & Northern 20 America **X** Oceania 10 Δ 20 30 40 50 60 70 Per cent ever married in 1990-1995

Figure 8. Distribution of countries or areas according to the percentage of women aged 15-19 who are ever married, 1990-1995 and 2005-2010

Sources: United Nations, 2009; MEASURE DHS STATcompiler, 2012

While early marriage has generally decreased since the 1990s, the relationship between early marriage and early childbearing still persists. Countries with large proportions of women aged 15-19 who are married also have high levels of adolescent childbearing (figure 9). Twenty per cent or more of female adolescents aged 15-19 have ever been married in 31 out 103 countries, among which the ABR is high (greater than 80 births per 1,000 women) in 22 African countries, two Asian countries (Bangladesh and Nepal) and three Latin American and Caribbean countries (Dominican Republic, Honduras and Nicaragua). Only four countries where twenty per cent or more of female adolescents aged 15-19 have ever married (India, Lao People's Democratic Republic, São Tomé and Príncipe and Zimbabwe) have a medium level of adolescent fertility (19 to 80 births per 1,000 women). A linear summary of the relationship between early marriage and early childbearing in 2005-2010 shows that, on average, where 20 per cent of female adolescents have ever married, the adolescent birth rate is 81 births per 1,000 women aged 15-19. Where 40 per cent of female adolescents have ever married, the adolescent birth rate rises to 149 per 1,000 women aged 15-19.

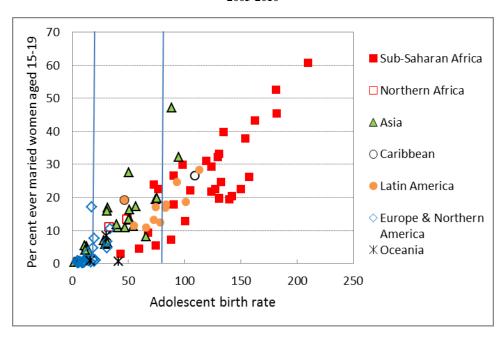


Figure 9. Distribution of countries or areas by adolescent birth rate and percentage of ever-married females aged 15-19, 2005-2010

Source: MEASURE DHS STATcompiler, 2012; United Nations, 2009; United Nations, Department of Economic and Social Affairs, 2013a

There are six countries where adolescent fertility is high (greater than 80 births per 1,000 women aged 15-19) despite having low proportions (less than 20 per cent) of ever-married adolescent females. Three of these countries are in Africa (Kenya, Lesotho and Swaziland) and three are in Latin America and the Caribbean (Ecuador, El Salvador and Guyana). In all of these countries, adolescent females in consensual unions are included in the ever-married status, indicating that the low proportion of ever-married women is not explained by an undercount of adolescents in consensual unions. Instead, the data suggest that in these countries many births occur among unmarried adolescents. Regardless, the decline in adolescent marriage is a driving force in the decline in adolescent fertility, particularly in settings where the majority of first births occur within marriage.

B. Timing of first sex, marriage and childbirth

For many adolescent females, adolescence is a short period of time when they make major transitions into being sexually active and starting their own families. The context within which the sexual debut occurs is particularly important. In some settings, a large proportion of adolescent females initiate sexual activity before marriage and many births to adolescent females occur outside of, or shortly after, marriage with little or no support for these young mothers and their babies. In many settings, large proportions of adolescents initiate sexual activity with older partners even in settings where both marriage and the start of sexual activity are linked closely to each other. There is evidence suggesting larger partner age differences among young women who initiate sexual activity within marriage compared to those whose sexual debut is before marriage (Gómez et al., 2008). Early sexual activity with an older partner has been linked to poor gender relations and poor reproductive health outcomes (Ryan et al., 2008). In countries where unmarried women are restricted from access to reproductive health information, supplies and services, unmarried sexually active adolescents are at particular risk of negative reproductive health outcomes.

Data are available from the Demographic and Health Surveys on sex and marriage by age 15 and by age 18 among women aged 20-24 for 26 high-ABR countries and 16 medium-ABR countries. In Asia, most reproductive health surveys are based on samples of ever-married women and, hence, the information on sexual behaviour prior to marriage is selective of young women who have already married. Data are shown for young women aged 20-24 to represent the experiences of a young generation that has been exposed to the risk of first sex, first marriage or first birth during adolescence up through age 18.

Figures 10 and 11 show the percentage of women aged 20-24 who had first sexual intercourse or were married by age 15 and by age 18 in 2005-2010 for countries with a high ABR (figure 10) and countries with a medium ABR (figure 11), a majority of which are in Africa and Latin American and the Caribbean. A greater proportion of young women has had sex than is married by both ages 15 and 18 and the difference is even greater by age 18, particularly in countries where adolescent fertility is high. The difference between the percentage who have had sex and those married provides data on sexually active unmarried women who often have different reproductive health challenges than their married peers.

Zambia Sex by age 15 Tanzania 0 Uganda Sex by age 18 Swaziland Marriage by age 15 Sierra Leone Я Senegal ☐ Marriage by age 18 Nigera ҈ Niger đЯ Nepal ₽ Mali Malawi Madagascar Liberia Lesotho -0 Kenya Honduras Guyana Guinea Ethiopia п Ecuador Dominican Rep. Congo, Dem. Rep. Congo п Chad 0 20 40 60 80 Percentage

Figure 10. Percentage of women aged 20-24 who had first sexual intercourse or were married by ages 15 and 18 in high-ABR countries with available data, 2005-2010

Source: DHS surveys, 2005-2010

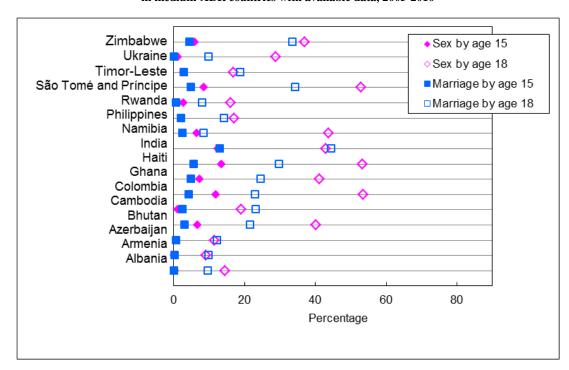


Figure 11. Percentage of women aged 20-24 who had first sexual intercourse or were married by ages 15 and 18 in medium-ABR countries with available data, 2005-2010

Source: DHS surveys, 2005-2010

The difference between the percentage of women aged 20-24 who have entered into sexual activity or marriage by age 15 and age 18 shows a rapid progression within a mere duration of three years in sexual initiation and marriage, in that order. Less than 30 per cent of young women have had sex by age 15 in the majority of countries with either high or medium levels of ABR. By age 18, more than 60 per cent have had sex in the majority of countries. A similar pattern of rapid progression is shown for marriage. In a majority of countries where adolescent fertility is high, more than 50 per cent have married by age 18, up from under 20 per cent who have married by age 15. In countries with a medium level of adolescent fertility, the percentages increase from under 10 per cent of women married by age 15 in almost all countries to between 30 and 60 per cent of women married by age 18 (figure 10).

The data shown in figures 10 and 11 indicate that there are adolescents who are sexually active before entering into marriage in nearly every country. In 2005-2010, data on sexual initiation within and outside of marriage among women aged 20-24 are available from the Demographic and Health Surveys for 36 countries (first two columns of table 2), of which the majority are in Africa and Latin America and the Caribbean. In Asia, there is little information on sexual behaviour prior to marriage.

Table 2. Percentage of women aged 20-24 who initiated sexual activity or had the first birth before or within marriage before age 20, high-abr and medium-abr countries with available data, 2005-2010

| | Countries where the level of adolescent birth rate is high | | | | | |
|-------------------------|--|--------------------------|----------------------------------|--------------------|--|--|
| | Women aged 20-24 | | | | | |
| | | al intercourse age 20 | Had first birth before age 20 | | | |
| | Before marriage | Within marriage | Before marriage | Within marriage | | |
| Benin | 45.0 | 34.2 | 5.7 | 39.4 | | |
| Congo | 79.1 | 16.3 | 22.8 | 31.8 | | |
| Dem. Rep. of the Congo. | 51.2 | 29.9 | 7.5 | 40.8 | | |
| Dominican Republic | 33.7 | 37.1 | 3.3 | 38.3 | | |
| Ethiopia | 8.1 | 54.2 | 1.6 | 44.4 | | |
| Guinea | 25.9 | 56.9 | 10.0 | 56.0 | | |
| Guyana | 49.2 | 23.1 | 10.3 | 24.4 | | |
| Honduras | 21.0 | 43.0 | 4.4 | 42.0 | | |
| Kenya | 47.2 | 20.5 | 16.3 | 30.5 | | |
| Lesotho | 51.4 | 22.6 | 12.1 | 25.3 | | |
| Liberia | 67.1 | 24.8 | 22.8 | 32.5 | | |
| Madagascar | 41.8 | 40.7 | 7.7 | 49.1 | | |
| Malawi | 33.3 | 48.4 | 8.1 | 58.7 | | |
| Mali | 22.3 | 62.8 | 5.7 | 63.7 | | |
| Niger | 4.1 | 79.1 | 2.3 | 69.9 | | |
| Nigeria | 29.0 | 38.7 | 5.1 | 37.8 | | |
| Senegal | 11.3 | 39.9 | 5.9 | 31.5 | | |
| Sierra Leone | 48.7 | 34.3 | 17.1 | 40.8 | | |
| Swaziland | 66.8 | 6.3 | 42.7 | 9.3 | | |
| Uganda | 45.8 | 39.3 | 11.9 | 50.4 | | |
| Tanzania | 40.9 | 38.2 | 14.4 | 41.4 | | |
| Zambia | 43.1 | 34.3 | 17.3 | 44.0 | | |

| _ | Countries where the level of adolescent birth rate is medium | | | | | | |
|-----------------------|--|--------------------------|----------------------------------|--------------------|--|--|--|
| _ | Women aged 20-24 | | | | | | |
| | | al intercourse age 20 | Had first birth before age 20 | | | | |
| | Before marriage | Within marriage | Before marriage | Within marriage | | | |
| Bolivia | 43.4 | 19.1 | 12.6 | 24.7 | | | |
| Cambodia | 1.6 | 31.2 | 0.4 | 22.0 | | | |
| Colombia | 67.1 | 15.2 | 12.5 | 23.9 | | | |
| Ghana | 46.6 | 24.8 | 9.4 | 22.9 | | | |
| Haiti | 51.8 | 21.1 | 3.2 | 26.9 | | | |
| Namibia | 65.0 | 7.7 | 26.3 | 8.8 | | | |
| Peru | 39.9 | 16.3 | 6.9 | 21.8 | | | |
| Philippines | 14.2 | 23.6 | 1.7 | 19.6 | | | |
| Republic of Moldova | 25.7 | 29.5 | 0.6 | 16.8 | | | |
| Rwanda | 16.6 | 17.6 | 6.1 | 12.2 | | | |
| São Tomé and Príncipe | 50.5 | 29.7 | 11.4 | 36.8 | | | |
| Timor-Leste | 3.0 | 30.2 | 0.1 | 24.2 | | | |
| Ukraine | 38.3 | 19.6 | 1.4 | 11.2 | | | |
| Zimbabwe | 24.8 | 40.9 | 5.8 | 41.1 | | | |

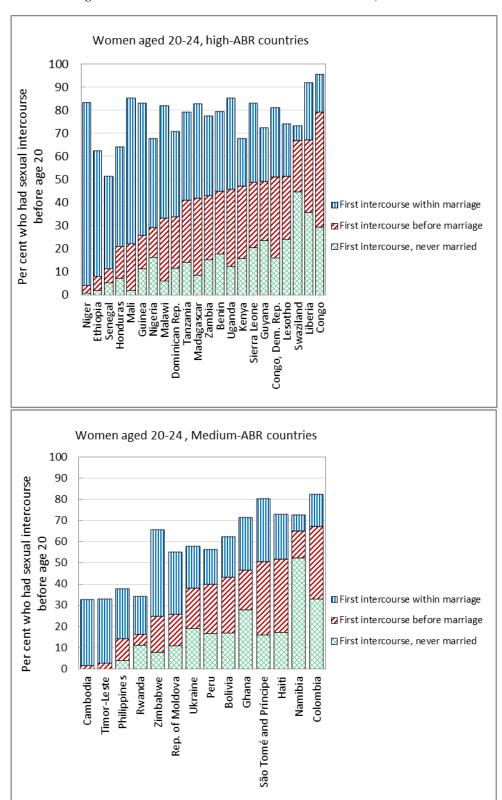
Figure 12 shows the context in which first sex occurred: either outside of or within marriage. The bars in the figure are in ascending order according to the percentage of women aged 20-24 who have had premarital sex before age 20 (i.e., had sex and never married by age 20 or had sex before marriage by age 20). Initiation of sexual activity before marriage is more common than sexual initiation within marriage in 22 out of 36 countries. Among 20 high-ABR or medium-ABR countries, at least 40 per cent or more of young women have had premarital sexual intercourse.

There is little difference in the levels of premarital sexual activity by age 20 years between young women in high-ABR countries and their peers in medium-ABR countries. However, between the two groups of countries, there are large differences in the proportion of young women whose sexual debut is within marriage. The median for sexual initiation within marriage before age 20 years among high-ABR countries is 38 per cent compared to 23 per cent among the medium-ABR countries.

Even in countries where sexual initiation is common outside of marriage, most adolescent childbearing occurs within marriage (see columns three and four in table 2). Figure 13 shows the percentage of women who have had a first birth either before marriage or within marriage by age 20 among women aged 20-24. The bars in the figure are presented in ascending order according to the percentage of women who had a premarital birth by age 20.

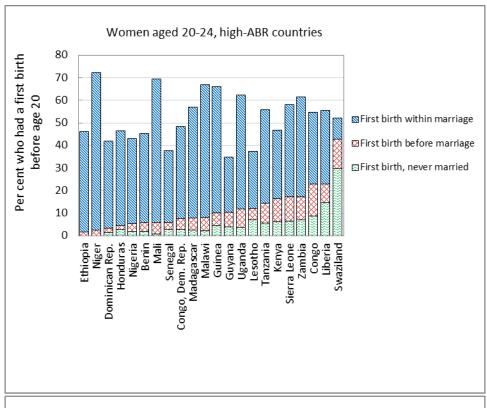
The figure shows that despite the high level of premarital sexual initiation in the majority of countries (figure 12), a larger proportion of young women who have their first birth during adolescence do so within marriage rather than outside marriage in all 36 countries, except in Namibia and Swaziland. Some of these births occur among young women whose marriages are preceded by pregnancy.

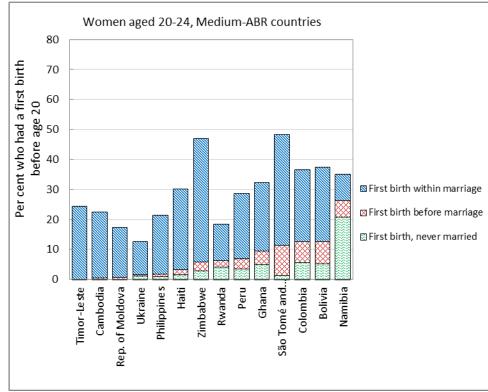
Figure 12. Percentage of women aged 20-24 who initiated sexual activity before or within marriage by age 20, high-ABR and medium-ABR countries with available data, 2005-2010



Source: Table 2.

Figure 13. Percentage of women aged 20-24 who have had a first birth before or within marriage by age 20, high-ABR countries and medium-ABR countries with available data, 2005-2010





Source: Table 2.

The proportion of young women whose first births in adolescence occur within marriage but are conceived before marriage can be estimated by looking at the first birth interval, that is, the duration of the period between union formation and the first birth. The estimation of the first birth interval is restricted to women aged 20-24 years at the time of the survey who had a first birth before age 20 and after getting married. A first birth interval that is shorter than the normal gestation period generally indicates that in the majority of cases the pregnancy occurred before marriage. Figure 14 shows the proportion of women whose first birth interval within marriage is shorter than 8 months among women aged 20-24 years who gave birth before they were 20 years old. Pregnancies that precede marriage but extend after a marriage occurs are more common in Africa than in other regions. In 16 out of 27 African countries, 20 to 39 per cent of adolescents give birth to their first child within seven months following union formation, compared to 9 to 29 per cent in all six Latin American and Caribbean countries, 1 to 25 per cent in all 12 Asian countries, and 4 to 20 per cent in all three European countries. The data indicate a relatively high level of premarital conceptions, and suggest that many young women marry earlier than they might have expected as a result of premarital conception while they were adolescents. The data also suggest that the consequences of premarital sexual activity may be underestimated.

Asia
Europe
Latin America and the Caribbean

Africa

0 10 20 30 40 50
Percentage of women

Figure 14. Percentage of women whose first birth interval was shorter than 8 months, among women aged 20-24 whose first birth occurred before age 20 in countries with available data

Source: DHS Surveys, 2005-2010

Per cent who had first birth before marriage 80 70 60 50 40 ■ High-ABR 30 countries 20 ♦ Medium-ABR countries 10 0 80 40 60 100 Per cent who had first sex before marriage

Figure 15. Percentage of women aged 20-24 who initiated premarital sexual activity and had a premarital first birth before age 20 years, high-ABR and medium-ABR countries with available data, 2005-2010

The extent of underestimation of the association between premarital sexual activity and pregnancy is shown in figures 15 and 16. Initiation of sexual intercourse during adolescence is positively associated with first births but less so when sexual intercourse and first births occur before marriage (figure 15) than within marriage (figure 16). Moreover, the associations between sexual initiation and first birth within and outside of marriage are similar in both the high-ABR and medium-ABR countries. It is evident, as might be expected, that among young women whose first sexual intercourse in adolescence was within marriage, the act of getting married as an adolescent may be associated with readiness (or pressure) to start childbearing as soon as possible. However, the difference in the risk of childbearing among adolescents who initiate sexual intercourse before marriage and those who initiate sex within marriage may not be as remarkably different as suggested in figure 15. Although, in many settings, premarital sexual activity that results into premarital pregnancy is sequenced into marital births, the data suggest that of these two factors, that is, sexual initiation and marriage, marriage is more associated with the timing of the first births among adolescents than sexual initiation per se. A rising age at marriage could be one of the critical factors in reducing adolescent childbearing.

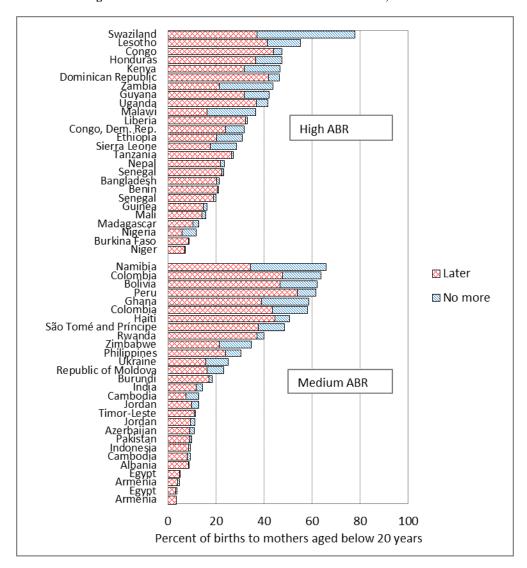
80 Per cent who had first birth within marriage 70 60 50 40 ■ High-ABR countries 30 ♦ Medium-ABR 20 countries 10 0 60 80 0 20 40 100 Per cent who had first sex within marriage

Figure 16. Percentage of women aged 20-24 who initiated sexual activity within marriage and had a first birth within marriage before age 20 years, high-ABR and medium-ABR countries with available data, 2005-2010

C. Contraceptive use

Female adolescents who have initiated sexual activity are at risk of unintended pregnancy and childbirth; that is, pregnancies or births that occurred sooner than wanted or that were not wanted at all. In sub-Saharan Africa, an estimated 35 per cent of pregnancies among women aged 15–19 are unwanted or mistimed (Bankole and Malarcher, 2010). An estimated 2.2 million unintended pregnancies occur annually among adolescent females living in sub-Saharan Africa, 2.7 million in South-Central Asia and Southeast Asia, and 1.2 million in Latin America and the Caribbean (International Planned Parenthood Federation, 2010). Figure 17 shows the percentage distribution of births to mothers aged less than 20 years in the five years preceding the survey, according to whether the births were unintended at the time they occurred. The proportion of unintended births is higher in high-ABR countries (median is 30 per cent) than in medium-ABR countries (median is 16 per cent). Not surprisingly for this young age group, the majority of unintended births occur earlier than they are wanted rather than not being wanted at all. The proportion of births wanted later is higher in high-ABR countries than in medium-ABR countries. The median proportion of births wanted later is 22 per cent among 27 high-ABR countries and 14 per cent among 29 medium-ABR countries. The proportions of births that are not wanted at all are about the same in the high-ABR countries (median is 4 per cent) and medium-ABR countries (3 per cent).

Figure 17. Percentage distribution of births to mothers aged less than 20 years in the five years preceding the survey, according to whether the births were unintended at the time they occurred, high-ABR and medium-ABR countries with available data, 2005-2010



High levels of unintended pregnancy and childbirth among adolescents are largely because of a lack of adequate information and barriers to accessing and using contraception (Bankole and Malarcher, 2010). Unintended births occur even among women who use contraception because of poor or incorrect use of methods, use of ineffective methods, or gaps between method discontinuation and subsequent use or gaps between stable relationships (Frost and Darroch, 2004; Hubacher et al., 2008).

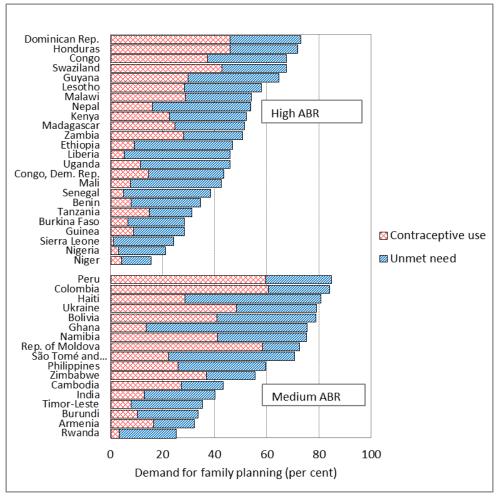


Figure 18. Demand for family planning among currently married women aged 15-19, 2005-2010

The demand for family planning among female adolescents is substantial. Total demand for family planning is defined as the sum of women using a method of contraception and women with an unmet need for family planning (that is, women who want to avoid or postpone childbearing but are not using any method of contraception). Figure 18 shows a wide range in the total demand for contraception among currently married women aged 15-19, from 15 per cent in Niger to 85 per cent in Peru. The median of total demand for family planning among married adolescents is 46 per cent in high-ABR countries and 70 per cent in medium-ABR countries (table 3). Although demand for family planning among married adolescents is higher in medium-ABR countries than in high-ABR countries, there is little variation in the difference between those using contraception and those with unmet need. The median of contraceptive prevalence among married adolescents in medium-ABR countries is 27 per cent and the median of unmet need is also 27 per cent (figure 18 and table 3). In the high-ABR countries, unmet need is higher than contraceptive use among currently married adolescents: the median of contraceptive use (15 per cent) is almost half the median of unmet need (27 per cent).

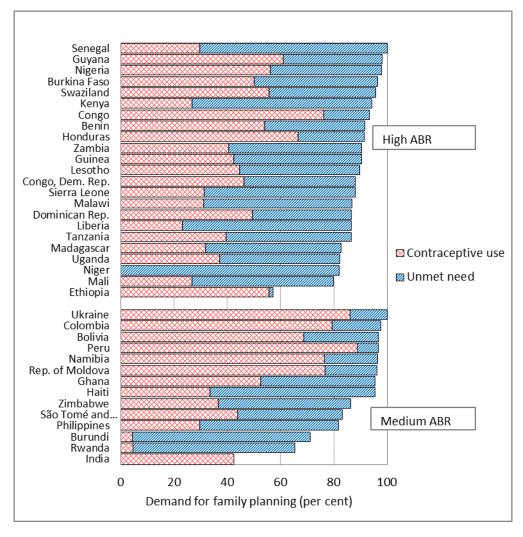


Figure 19. Demand for family planning among sexually active unmarried women aged 15-19, 2005-2010

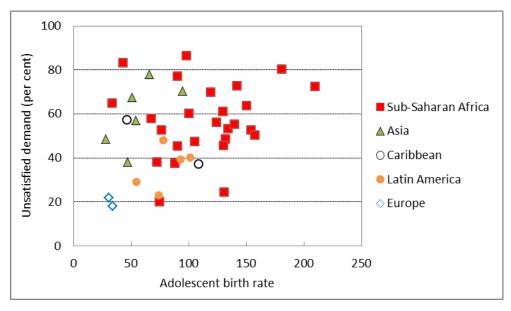
Among sexually active unmarried adolescents, total demand for family planning and contraceptive use are higher than among married adolescents (figures 18, 19 and table 3) and the proportion of demand that is unsatisfied (that is, unmet need divided by total demand) is lower among sexually active unmarried adolescents than among married adolescents. Moreover, the proportion of demand that is unsatisfied is also lower in medium-ABR countries than high-ABR countries for both married and sexually active unmarried adolescents. The data indicate that married adolescents are more inhibited in accessing and using contraceptives than their sexually active unmarried age-mates.

The proportion of demand that is unsatisfied among women aged 15-19 and its association with adolescent fertility is revealing. Unsatisfied demand for family planning is positively associated with adolescent fertility in a majority of countries. Countries with a high level of unsatisfied demand for family planning among women aged 15-19 have generally higher levels of adolescent childbearing (figure 20). In 23 out of 41 countries—18 of which are in sub-Saharan Africa—the proportion of demand that is unsatisfied is more than 50 per cent among female adolescents. A few countries deviate from their regional patterns.

TABLE 3. CONTRACEPTIVE USE AND UNMET NEED AMONG WOMEN AGED 15-19 YEARS, 2005-2010

| - | High-ABR countries | | | Medium-ABR countries | | | | |
|-----------------------------|---------------------------------|--------|---------|----------------------|------------|--------|---------|---------------------|
| Per cent | Minimum | Median | Maximum | Number of countries | Minimum | Median | Maximum | Number of countries |
| _ | Sexually active unmarried women | | | | | | | |
| Contraceptive use | 0.0 | 42.6 | 76.1 | 23 | 4.5 | 48.2 | 88.6 | 14 |
| Unmet need | 1.6 | 46.3 | 81.8 | 23 | 8.1 | 39.3 | 66.7 | 13 |
| Total demand | 57.2 | 89.7 | 100.0 | 23 | 65.3 | 95.4 | 100.0 | 13 |
| Unsatisfied demand | 2.7 | 52.9 | 100.0 | 23 | 8.3 | 44.9 | 93.7 | 13 |
| _ | | | | Currently mari | ried women | | | |
| Contraceptive use | 1.2 | 14.7 | 45.9 | 24 | 3.2 | 27.1 | 60.5 | 17 |
| Unmet need | 11.2 | 27.0 | 40.7 | 24 | 14.2 | 27.1 | 61.7 | 17 |
| Total demand Unsatisfied | 15.4 | 46.3 | 73.0 | 24 | 25.1 | 70.5 | 84.8 | 17 |
| demand | 36.0 | 67.7 | 95.1 | 24 | 19.5 | 48.7 | 87.1 | 17 |

Figure 20. Distribution of countries according to adolescent birth rate and unsatisfied demand for family planning among women aged 15-19, by regions in 2005-2010



Sources: United Nations, Department of Economic and Social Affairs, 2013a; DHS Surveys

Unmet need for family planning reflects, in part, difficulties in accessing or using family planning services. Social stigma, shame, fear and cost are significant barriers to adolescent utilization of sexual and reproductive health care services (Bankole and Malarcher, 2010; Biddlecom et al., 2007). Adolescents may feel afraid, embarrassed or shy to seek health care services for a problem or need linked to sexual activity. Providers' attitudes may also contribute to this stigma. Sexual and reproductive health services often require adolescents to disrobe and have the intimate parts of their bodies scrutinized, which can be

embarrassing and shameful, especially if the provider is of the opposite sex or there is a perception of inadequate privacy and confidentiality. Providers also play a critical role in adolescents' access to sexual and reproductive health services because they have considerable discretionary power in determining who is permitted to obtain information or medical attention and how policies and guidelines are implemented. Adolescents in developing countries have been denied contraceptives because of their age or marital status by providers who, among other attitudes, worry that contraceptives will impair women's subsequent fertility or that access to contraception will encourage promiscuity (Tavrow, 2010). Many unmarried adolescents depend on adults to help them obtain health care, yet parents and other adults, including providers, are less accepting of adolescents receiving reproductive health services (Biddlecom et al., 2007). Those who do not have resources are even more susceptible to the cost of obtaining reproductive health services, which could discourage or delay them from obtaining such services.

Other factors that prevent women more generally from using contraception include health concerns about side effects, social opposition from spouses and family members (Casterline and Sinding, 2000; Presler-Marshall and Jones, 2012) and insufficient services and supply of a narrow range of quality contraceptives. Laws, regulations and policies that limit unmarried women's access to family planning services predominantly affect adolescent females. However, there are limited data on policies, laws, or regulations that restrict access to family planning services for particular segments of the population. For example, only three countries (Bangladesh, Ghana and Pakistan) out of 36 countries surveyed on such measures reported limited access for unmarried women or young people but did not specify whether these restrictions were due to community practices or official policies (USAID, 2010). Charges to the client for family planning services or commodities in the public sector may increase unmet need for those services and commodities. In the survey cited above (USAID, 2010), 13 of 36 countries reported charges to clients for family planning services or commodities in the public sector. Although seven of these 13 countries reported that there are exemptions for those who cannot afford to pay, the processes of getting exempted can discourage adolescents from seeking family planning services and commodities.

The Contraceptive Security Index measures the degree to which every person is able to choose, obtain, and use quality contraceptives and condoms for family planning and for the prevention of HIV and AIDS and other sexually transmitted infections. The association between contraceptive security and unsatisfied demand for family planning is shown in figure 21 for both currently married women and sexually active unmarried women in aged 15-19. There is apparently no association between contraceptive security and unsatisfied demand for family planning among adolescent women, irrespective of marital status. This suggests that social factors—including the expectation of immediate pregnancy upon marriage—could be playing a bigger role than programme-specific factors. The data indicate that sexually active unmarried adolescents may not be as inhibited in accessing contraceptive services as previously thought, compared to their married peers. Figure 21 shows that the proportion of demand that is unsatisfied is higher among currently married women than among sexually active unmarried women in 21 out of 32 countries shown. The data suggest that sexually active unmarried women are more likely to overcome barriers to accessing family planning than currently married women who are more likely to overcome access issues peculiar to their marital status.

Implicit in the legal frameworks that permit the provision of family planning services to married women is the notion that access to reproductive health is a family matter involving more than the married

⁵ The Contraceptive Security Index is a composite index that includes indicators of: logistics management of contraceptive supplies; government and household financing of family planning services in a country; health and social environment; access to modern methods of contraception; and clients' behaviour in terms of contraceptive use. An abridged Contraceptive Security Index that excludes indicators of unmet need and contraceptive prevalence rate is used in this report because these two indicators are highly correlated with the proportion of demand that is unsatisfied. For detailed information about how the Contraceptive Security Index is calculated, please refer to the Contraceptive Security Index Technical Manual (USAID, 2009).

woman. In many settings, the right of a married adolescent to make decisions regarding childbearing is subject to pressures from spouses and extended family members. In many countries, gender relations within marriage are based on inequities that inhibit women, especially young women, from exercising their right to self-determination within the family and the right to make independent decisions regarding their reproductive health.

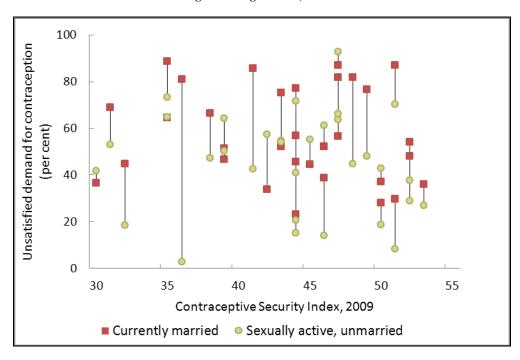


Figure 21. Contraceptive security index and the proportion of demand for contraception that is unsatisfied among women aged 15-19, 2005-2010

Sources: DHS surveys; USAID, 2010

High levels of condom use among sexually active unmarried adolescents explain a large part of the difference in the level of unsatisfied demand for family planning by marital status (figures 22 and 23). Larger proportions of sexually active unmarried adolescents use the condom than the pill, compared to their married age-mates who use the pill more than they use the condom. Since the mid-1980s, condoms have been promoted as a means of disease prevention, with emphasis on condom use outside of marriage (Cleland et al., 2006). It is difficult for a young woman to negotiate with her husband about the use of a method that is linked to "illicit" sex and disease. Condoms are increasingly being used for contraceptive purposes but more so among unmarried than married women (Maharaja et al., 2012; Cleland et al., 2006). A study on protective behaviour among single and married young women in 13 countries in sub-Saharan Africa showed that pregnancy prevention was the main or partial motive for 60 per cent of all single, female condom users (Cleland et al., 2006).

Condom

Rep. of Modificas American

Per of Modificas American

Per of Modificas American

Congruent Rep. of Modificas American

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Congruent Rep. of Modificas American

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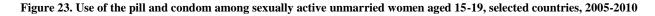
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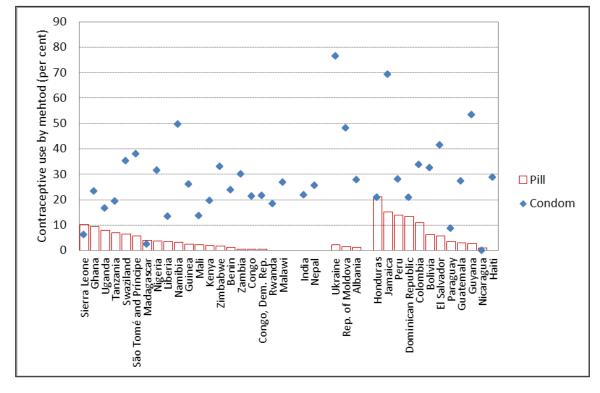
Congruent Rep. of Modificas American

Co

Figure 22. Use of the pill and condom among currently married women aged 15-19, selected countries, 2005-2010

Source: DHS surveys, 2005-2010





Source: DHS surveys, 2005-2010

III. EDUCATION AND ADOLESCENT CHILDBEARING

Education is a crucial factor underlying adolescent childbearing for several reasons. By age 15, most girls (and boys) have reached sexual maturity, and school enrolment can provide a protective environment in which young women enrolled in school are less likely to initiate sexual activity or marry at an early age. Prolonged enrolment in school also allows adolescents to gain knowledge about their bodies and to develop their capabilities and skills to prevent pregnancy. A prolonged period of schooling is usually associated with greater investments in human capital as young people marry late and enter the labour market and start childbearing later (National Research Council and Institute of Medicine, 2005). There is some evidence, however, that in countries where late entry into school and grade repetition are common, poor school performance and slow advancement can increase not only the likelihood of getting pregnant while still enrolled in school but also the likelihood of leaving school if a girl gets pregnant (Grant and Hallman, 2008). However, a study of five countries in sub-Saharan Africa found that the risks of leaving school during adolescence because of childbirth have diminished despite an increase in the proportion of adolescents still enrolled in school after the age of puberty and later ages of school leaving (Lloyd and Mensch, 2008).

The retention of pupils to the last grade of primary school is commonly considered as a prerequisite for sustainable literacy. Literacy enables a person to acquire basic cognitive skills, to develop the capacity for critical reflection and social awareness and to use these skills in continuous lifelong learning. Literacy can be instrumental in maintaining good health, making informed reproductive decisions, raising healthy children and educating them (UNESCO, 2005). Literacy is also crucial for the acquisition of essential life skills that enable pupils and students to participate effectively in their societies and economies (United Nations General Assembly, 2002), to learn about other cultures, to contribute to socio-economic development, and to develop capabilities for socio-cultural and political change.

The recent rapid rise in school participation and grade attainment, particularly for girls, in developing countries, with growing numbers of girls still attending beyond the age of 15 (Lloyd, 2010), suggests that many girls are initiating sexual intercourse and getting married at later ages. It suggests further that schools are an increasingly important institutional environment for young people at a phase of life when sexual activity becomes more prevalent (National Research Council and Institute of Medicine, 2005).

Reviews of adolescent programmes have found that school-based sexual and reproductive health education is effective at improving adolescent sexual and reproductive health in terms of changes in knowledge and behaviours (Malarcher, 2010; Gallant and Maticka-Tyndale, 2004; Kirby et al., 2007; Hindin and Fatusi, 2009; Paul-Ebhohimhen et al., 2008). Studies have shown that increasing the number of years spent in school before students get their end-of-curriculum diplomas is associated with delayed childbearing (Black et al., 2004; Ferré, 2009). For example, a study of the Kenyan educational system found that one additional year of schooling reduced the probability of giving birth when still a teenager by 7.3 per cent if a woman had completed at least primary education, and 5.6 per cent if a woman had completed at least secondary education (Ferré, 2009). A cross-national study showed that in 34 out of 36 Latin American and sub-Saharan African countries girls still attending school at ages 15-17 were much less likely to have had premarital sex than their age-mates who were not enrolled in school, and in 20 of those countries, contraceptive use among girls aged 15-17 who were sexually active and unmarried was higher among the enrolled than among those not attending school (Lloyd, 2010). There is also a possibility that even as marriage is delayed, increasing school enrolment could be limiting the likelihood that first sex will be experienced prior to marriage (National Research Council and Institute of Medicine, 2005).

While the data on pregnancies among schoolgirls are limited, there is some evidence that pregnancies among adolescent school-girls are more likely to be terminated than those among adolescents not enrolled in school (Lloyd and Mensch, 2008), suggesting a higher level of unmet need for family planning among school-girls compared to their age-mates not enrolled in school. Reviews of studies on abortion among young women in both developed and developing regions show that the desire to stay in school is a major reason given for seeking an induced abortion (National Research Council and Institute of Medicine, 2005).

Differences in the exposure of adolescents to school and the level of school attainment are likely to be associated with levels of adolescent fertility among countries and regions. The survival rate to the last grade of primary education is of particular interest because of its use in monitoring universal primary education, a central objective for the Millennium Development Goals and Education for All initiative. However, the survival rate to last grade of primary school does not address the level of enrolment and participation of adolescents in formal schooling. Although it conversely indicates the degree of dropout by grade, it only captures the dropout rate of those enrolled. It is possible that a country with low enrolment rates may have high survival rates.

School life expectancy improves on the survival rate indicator. School life expectancy from primary through secondary school is an indicator of the number of years of schooling that a person of school entrance age can expect to spend from the start of primary to secondary levels of education (UNESCO Institute for Statistics, Data Centre, 2012). This indicator covers adolescents of secondary school age. It is calculated as the sum of the age-specific enrolment rates for the levels of education specified and shows the average number of years of schooling that a child of a certain age can expect to receive in the future, if she were subject to the current age-specific enrolment rates over her entire life.

Since school life expectancy is an average based on participation in different levels of education, the expected number of years of schooling may be pulled down by the magnitude of children who never go to school and therefore underestimate the average school life expectancy. Another dimension of schooling is the out-of-school rate for females of lower secondary school age, expressed as a percentage of the female population of official lower secondary school age who are not enrolled in school, including those who never attended or dropped out.

Table 4 shows that higher levels and longer durations of schooling are associated with lower levels of adolescent childbearing. In 2005-2010, the survival rate for females to the last grade of primary school is lower in high-ABR countries (median of 63 per cent) and much higher in medium-ABR countries (94 per cent) and low-ABR countries (99 per cent). Girls' school life expectancy from primary through secondary school is lower in high-ABR countries (median of 8.7 years) compared to medium-ABR countries (median of 11 years) and low-ABR countries (median of 12 years). The out-of-school rates for females of lower secondary school age in high-ABR countries and in medium-ABR countries are six times and two times the rate in low-ABR countries (medians of 25 and 8 per cent, respectively, compared to a median of 4 per cent).

Available data also generally show large variations among high-ABR countries compared with medium-ABR and low-ABR countries on two of these three measures of schooling. In 2005-2010, the range of survival rates for females to the last grade of primary school is about three times as large among

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⁶ Education for All (EFA) is an international initiative first launched in Jomtien, Thailand, in 1990 and reaffirmed in Dakar, Senegal, in 2000 to bring the benefits of education to "every citizen in every society" and ensure that the basic learning needs for all were met (UNESCO, 2000). Survival rate is the percentage of a cohort of girls enrolled in the first grade of primary school in a given school year who are expected to reach the last grade of primary school.

high-ABR countries and two times as large among medium-ABR countries as the range among low-ABR countries (table 4). The number of years that a girl could expect to spend from primary through secondary school ranges from 2 to 12 years among high-ABR countries compared to a range of 9 to 15 years in low-ABR countries. However, the variation in school life expectancy is similar among high-ABR countries and medium-ABR countries (range of 10 years). Among girls of lower secondary school age, 25 to 83 per cent are not enrolled in school in half of the high-ABR countries compared to a range of 4 to 13 per cent in half of the low-ABR countries.

Table 4. Distribution of countries according to girls' participation and progression in school by adolescent birth rate level, 2005-2010

| | | A | dolescent birth | rate |
|--|---------------------|------|-----------------|-------|
| | | High | Medium | Low |
| Survival rate (per cent) for females to last grade of primary school | Number of countries | 38 | 63 | 32 |
| | Minimum | 25.7 | 57.3 | 77.5 |
| | Median | 62.8 | 94.5 | 98.5 |
| | Maximum | 94.7 | 99.9 | 100.0 |
| School life expectancy (in years) for | Number of countries | 34 | 78 | 42 |
| females from primary through secondary school | Minimum | 1.7 | 4.1 | 9.3 |
| secondary sensor | Median | 8.7 | 11.0 | 12.3 |
| | Maximum | 11.9 | 14.5 | 14.7 |
| Out-of-school rate (per cent) for | Number of countries | 27 | 59 | 23 |
| females of lower secondary school | Minimum | 1.8 | 1.2 | 0.6 |
| age | Median | 24.8 | 7.9 | 4.0 |
| | Maximum | 83.2 | 65.5 | 13.1 |

 ${\it Source}{\rm : UNESCO\ Institute\ for\ Statistics,\ Data\ Centre,\ 2012;\ United\ Nations,\ Department\ of\ Economic\ and\ Social\ Affairs,\ 2013a}$

Figure 24 shows that survival rates for females to the last grade of primary school are negatively associated with adolescent birth rates in all regions. The survival rates in Europe and Northern America are close to 100 per cent and there is little variation among these countries. Among the developing countries, survival rates are on average higher in Latin America and the Caribbean, followed by Asia and Africa. The variation in survival rates is narrow among countries of Latin America and the Caribbean compared to Asia and particularly Africa, where countries with the same level of survival rate, for example between 60 and 80 per cent, have adolescent birth rates that range from under 50 to over 175 per 1,000 women aged 15-19.

Adolescent birth rates are high in countries where school life expectancy is shorter than in countries where it is longer (figure 25). As the number of years of schooling that a girl could expect to spend from the start of primary through secondary levels of education increases, the variation in adolescent birth rates tends to narrow. However, there are some medium-ABR countries where school life expectancy is shorter than six years. All five countries (Djibouti, Eritrea, Pakistan, Somalia and Sudan) have been identified as fragile or conflict-affected where children's access to education is fraught with violence, recruitment as child soldiers and economic risks and vulnerabilities that compel children to work instead of going to school (Carpenter et al., 2012). In Eritrea, for example, the unexpected negative association between school life expectancy and adolescent fertility is explained by the war of liberation and the recent border conflicts, both of which have affected the country's demographic situation (Woldemicael, 2010).

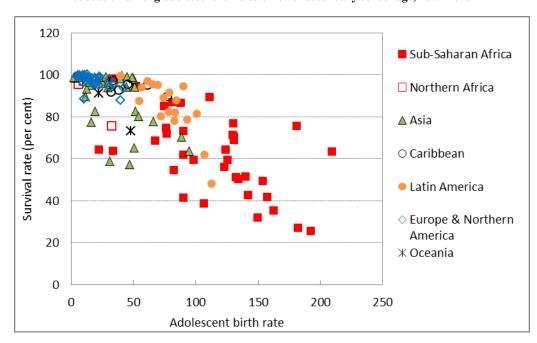


Figure 24. Distribution of countries by adolescent birth rate and survival rate to the last grade of primary education among adolescent females of lower secondary school age, 2005-2010

Source: UNESCO Institute for Statistics, Data Centre, 2012; United Nations, Department of Economic and Social Affairs, 2013a

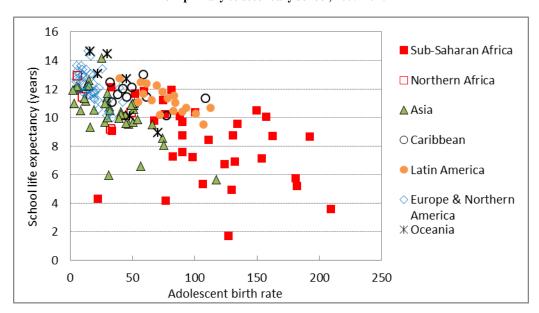


Figure 25. Distribution of countries by level of adolescent birth rate and school life expectancy for females from primary to secondary school, 2005-2010

Source: UNESCO Institute for Statistics, Data Centre, 2012; United Nations, Department of Economic and Social Affairs, 2013a

In 2005-2010, high out-of-school rates for girls of lower secondary age are associated with high adolescent birth rates (figure 26), and out-of-school rates for girls of lower secondary school age are highest in Africa, which also has some of the highest rates of adolescent fertility. However, there are

countries in Africa (Cabo Verde, Kenya and Namibia) and Latin America and the Caribbean (Bolivia, Colombia, Dominican Republic and Venezuela) where the adolescent birth rate is high despite low out-of-school rates for girls. A recent study of Latin American countries suggests that although education continues to be a factor protecting against teenage motherhood, its ability to prevent teen motherhood has declined and that motherhood is on the rise for teens in some countries, regardless of their position in the educational system (Rodríguez, 2011).

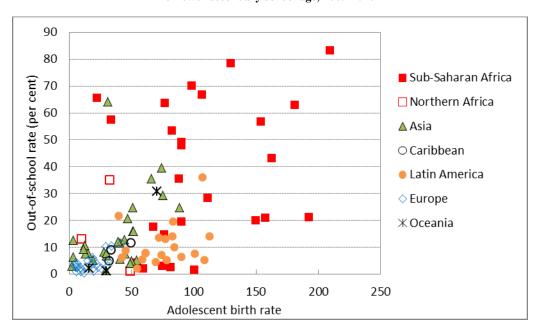


Figure 26. Distribution of countries by level of adolescent birth rate and out-of-school rate for females of lower secondary school age, 2005-2010

Source: UNESCO Institute for Statistics, Data Centre, 2012; United Nations, Department of Economic and Social Affairs, 2013a

In some settings, girls remain enrolled at the primary and lower secondary levels long after puberty because of delayed school entry, periods of absenteeism and grade repetition. Prolonged school enrolment into their late teens in lower grades can increase their risk of pregnancy-related disruptions. Adolescent females who are not actively and effectively engaged in school may be more likely to become pregnant while in school, dropping out and not returning to school altogether. In addition, high rates of grade repetition and secondary enrolment into the late teens can also create an environment in which students who make normal grade progression interact with more classmates who are older and sexually-active. A study of the role of peer effects on schooling and sexual behaviour in South Africa found that girls with older classmates have both earlier sexual debut and older first sexual partners than girls with classmates who are age-mates (Lam et al., 2013). Girls in grades 9-11 who passed their grade were significantly more likely to become sexually active than girls who did not pass the grade, suggesting that the expectation that schooling is protective in delaying sexual initiation can be negated in settings where students are exposed to classmates spanning a wide age range.

CONCLUSION

There is much concern about adolescent childbearing and its association with heightened health risks for mothers and their infants and lower educational attainment and persistent poverty among women who become mothers during early adolescence. This report presents new estimates of the levels and trends in adolescent fertility worldwide since the 1990s, a period following the adoption of the Programme of Action of the 1994 International Conference on Population and Development, which highlighted the importance of reducing adolescent pregnancy and recommended key follow-up actions that Governments should take to substantially reduce all adolescent pregnancies and to address adolescent sexual and reproductive health issues.

The decline in the adolescent birth rate has been almost universal since 1990-1995 across major areas and countries. In addition, the cumulative global population of female adolescents living in countries with a low or medium adolescent fertility level (that is, where the ABR is less than 80 births per 1,000 women aged 15-19) increased from 62 per cent in 1990-1995 to 83 per cent in 2005-2010.

The report also shows that early childbearing is an important contributor to fertility in high-fertility settings. Total fertility is above four children per woman in a majority of countries where early childbearing is still part of long, continued childbearing throughout the reproductive period of women. In Latin America, however, high levels of adolescent fertility are associated with moderate levels of total fertility of between two and four births per woman because fertility among older women is declining faster than adolescent fertility.

The decline in the ABR has been associated with declines in the proportion of adolescent females who have ever married in the majority of countries. Yet levels of adolescent fertility and adolescent marriage are still high in many countries, and most adolescent childbearing still occurs within marriage. A rising age at marriage could be the most critical factor in postponing adolescent childbearing. In many countries, however, marriage before the age of 18 is still common among women. In 2010, in 146 countries, girls younger than 18 could marry with parental consent or approval by a pertinent authority and in 52 of them girls under 15 could marry with parental consent (United Nations, Department of Economic and Social Affairs, 2011).

Considering that the level of premarital sexual activity is high in many countries and that a large proportion of births—many of them unintended—occur among married adolescents whose level of unsatisfied demand for family planning is higher than among their sexually active unmarried peers, there is a need to expand access to family planning among adolescents. The role of schools in this regard has been noted (Lloyd and Mensch, 2008). Evidence shows that adolescent pregnancies can be prevented when the intervention includes comprehensive sexuality education (Kohler et al., 2008). A review of studies in Viet Nam and four sub-Saharan African countries (Mali, Nigeria, Tanzania and South Africa) shows that young women's use of modern contraceptive methods is limited by a range of factors including the lack of knowledge and access and concern over side effects of hormonal methods, greater male control of condoms and the association of condoms with disease and promiscuity. Some suggest that increasing the use of modern methods among adolescents will be effective in countries where methods have been successfully promoted for child spacing and limiting family size among older women (Williamson et al., 2009).

The evidence presented also shows strong associations between aggregate measures of different dimensions of education in a country and adolescent fertility. Investing in education is another key strategy to reduce adolescent childbearing. Interventions need to support girls to achieve secondary education by ensuring that the youngest girls start school on time and do not reach "marriageable age" before they finish primary school (Presler-Marshall and Jones, 2012). Programmes have been

implemented to give incentives to adolescents to delay marriage and childbearing (Baird et al., 2010; Erulkar and Muthengi, 2009; McQueston et al., 2012; National Research Council and Institute of Medicine, 2005). A recent review of studies on adolescent fertility in low- and middle-income countries shows that interventions that encourage school attendance, through programmes that lower barriers to attending school or increase the opportunity cost of school absence, are effective in reducing overall adolescent fertility. The impact of cash transfers is stronger than other interventions, suggesting that cash transfers also reduce adolescent marriage by increasing financial independence (McQueston et al., 2012). For example, among girls aged 10-14 who were supported to stay in school in the Berhane Hewan program in Ethiopia, 90 per cent of them were less likely to be married and were three times more likely to be in school than girls in the control group (Erulkar and Muthengi, 2009).

Reducing adolescent fertility and addressing the multiple factors underlying it are essential for improving sexual and reproductive health and, ultimately, the social and economic well-being of adolescent girls. This report shows that adolescent fertility worldwide over the past 20 years, since the landmark Programme of Action of the 1994 International Conference on Population and Development, is becoming less common in almost every country. However, many countries are still characterized by slow declines or high levels of early childbearing. Further investments in keeping girls in school, delaying the age at marriage and expanding access to information and services to prevent pregnancy will help ensure that all adolescents can fulfil their right to determine if, when and how many children they want to have.

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ANNEX TABLES

 $TABLE\ A.1.\ ADOLESCENT\ BIRTH\ RATE\ AND\ TOTAL\ FERTILITY,\ BY\ DEVELOPMENT\ GROUPS,\ REGIONS\ AND\ COUNTRIES\ OR\ AREAS,\\ 1990-1995\ AND\ 2005-2010$

| Development group, region, country or area | | Pe | riod | |
|--|--------|------|--------|-----|
| | 1990-1 | .995 | 2005-2 | 010 |
| | ABR | TFR | ABR | TFR |
| WORLD | 64.5 | 3.0 | 48.9 | 2.5 |
| Developed regions | 34.2 | 1.7 | 23.6 | 1.7 |
| Developing regions | 70.2 | 3.4 | 52.7 | 2.7 |
| Least developed countries | 131.8 | 5.8 | 105.8 | 4.5 |
| Other developing countries | 60.6 | 3.1 | 42.4 | 2.4 |
| AFRICA | 118.9 | 5.7 | 103.6 | 4.9 |
| Eastern Africa | 126.2 | 6.4 | 111.2 | 5.4 |
| Burundi | 49.0 | 7.4 | 33.5 | 6.5 |
| Comoros | 68.8 | 5.3 | 58.0 | 5.1 |
| Djibouti | 68.2 | 5.9 | 22.1 | 3.8 |
| Eritrea | 122.1 | 6.4 | 76.9 | 5.2 |
| Ethiopia | 117.7 | 7.1 | 90.0 | 5.3 |
| Kenya | 113.5 | 5.6 | 100.2 | 4.8 |
| Madagascar | 150.2 | 6.1 | 134.3 | 4.8 |
| Malawi | 161.7 | 6.6 | 157.2 | 5.8 |
| Mauritius | 42.6 | 2.3 | 33.1 | 1.6 |
| Mayotte | 66.0 | 5.1 | 102.5 | 4.3 |
| Mozambique | 113.3 | 6.1 | 162.5 | 5.6 |
| Réunion | 51.4 | 2.4 | 44.7 | 2.4 |
| Rwanda | 58.7 | 6.6 | 42.8 | 5.1 |
| Seychelles | 68.1 | 2.6 | 59.9 | 2.3 |
| Somalia | 101.7 | 7.5 | 127.2 | 7.1 |
| South Sudan | 136.1 | 6.7 | 95.4 | 5.4 |
| Uganda | 201.3 | 7.1 | 149.9 | 6.4 |
| United Republic of Tanzania | 139.5 | 6.1 | 130.4 | 5.6 |
| Zambia | 116.0 | 6.3 | 139.7 | 5.9 |
| Zimbabwe | 111.0 | 4.8 | 72.6 | 3.9 |
| Middle Africa | 163.8 | 6.9 | 144.4 | 6.2 |
| Angola | 225.8 | 7.1 | 192.3 | 6.5 |
| Cameroon | 177.7 | 6.2 | 130.7 | 5.2 |
| Central African Republic | 143.4 | 5.7 | 106.6 | 4.9 |
| Chad | 218.1 | 7.4 | 181.9 | 6.9 |
| Congo | 130.5 | 5.2 | 130.5 | 5.1 |
| Democratic Republic of the Congo | 136.0 | 7.2 | 132.0 | 6.5 |
| Equatorial Guinea | 134.4 | 5.9 | 122.9 | 5.4 |
| Gabon | 155.5 | 5.2 | 115.0 | 4.3 |
| São Tomé and Príncipe | 108.4 | 5.2 | 76.4 | 4.5 |
| Northern Africa | 60.6 | 4.1 | 45.4 | 3.1 |
| Algeria | 24.4 | 4.1 | 9.7 | 2.7 |
| Egypt | 75.6 | 3.9 | 48.7 | 3.0 |
| Libya | 8.5 | 4.3 | 3.1 | 2.7 |
| Morocco | 51.7 | 3.7 | 32.7 | 2.4 |

| evelopment group, region, country or area | | Per | | 0.1.0 |
|---|--------|-----|--------|-------|
| | 1990-1 | | 2005-2 | |
| | ABR | TFR | ABR | TFR |
| Sudan | 108.0 | 6.0 | 106.6 | 4.8 |
| Tunisia | 18.1 | 3.1 | 5.7 | 2.1 |
| Western Sahara | 58.9 | 4.0 | 29.7 | 2.6 |
| Southern Africa | 91.6 | 3.5 | 61.5 | 2.0 |
| Botswana | 86.5 | 4.3 | 52.1 | 2.9 |
| Lesotho | 86.3 | 4.7 | 90.0 | 3. |
| Namibia | 103.4 | 4.9 | 74.4 | 3. |
| South Africa | 90.8 | 3.3 | 59.2 | 2. |
| Swaziland | 124.8 | 5.3 | 88.0 | 3. |
| Western Africa | 144.4 | 6.4 | 124.5 | 5. |
| Benin | 126.8 | 6.6 | 105.1 | 5. |
| Burkina Faso | 144.8 | 6.9 | 129.7 | 6. |
| Cabo Verde | 109.0 | 4.9 | 81.6 | 2. |
| Côte d'Ivoire | 139.7 | 6.1 | 125.6 | 4. |
| Gambia | 153.2 | 6.1 | 110.9 | 5. |
| Ghana | 104.0 | 5.3 | 67.6 | 4. |
| Guinea | 180.2 | 6.5 | 154.0 | 5. |
| Guinea-Bissau | 139.1 | 6.5 | 123.5 | 5. |
| Liberia | 161.4 | 6.3 | 142.0 | 5. |
| Mali | 192.6 | 7.0 | 180.9 | 6. |
| Mauritania | 107.8 | 5.9 | 82.5 | 5. |
| Niger | 224.0 | 7.8 | 209.6 | 7. |
| Nigeria | 143.4 | 6.4 | 123.9 | 6. |
| Senegal | 126.0 | 6.4 | 98.1 | 5. |
| Sierra Leone | 132.4 | 6.3 | 119.0 | 5. |
| Togo | 109.6 | 6.0 | 90.1 | 4. |
| SIA | 55.3 | 3.0 | 34.8 | 2. |
| Eastern Asia | 5.5 | 2.0 | 7.9 | 1. |
| China | 5.5 | 2.1 | 8.4 | 1. |
| China, Hong Kong SAR | 7.0 | 1.2 | 3.1 | 1. |
| China, Macao SAR | 7.0 | 1.4 | 3.2 | 0. |
| Dem. People's Republic of Korea | 1.8 | 2.3 | 0.6 | 2. |
| Japan | 4.0 | 1.5 | 5.1 | 1. |
| Mongolia | 38.4 | 3.3 | 19.0 | 2. |
| Republic of Korea | 4.2 | 1.7 | 2.1 | 1. |
| Other non-specified areas | 17.0 | 1.8 | 6.8 | 1. |
| South-Central Asia | 103.4 | 3.9 | 52.2 | 2. |
| Central Asia | 58.7 | 3.6 | 39.6 | 2. |
| Kazakhstan | 53.7 | 2.6 | 28.1 | 2. |
| Kyrgyzstan | 68.3 | 3.6 | 29.8 | 2. |
| Tajikistan | 57.4 | 4.9 | 44.8 | 3. |
| Turkmenistan | 26.4 | 4.0 | 20.9 | 2. |
| Uzbekistan | 66.1 | 3.9 | 48.8 | |
| | | | | 2. |
| Southern Asia | 105.2 | 3.9 | 52.7 | 2. |
| Afghanistan | 168.7 | 7.7 | 117.5 | 6. |
| Bangladesh | 154.9 | 4.1 | 88.7 | 2. |

| Development group, region, country or area | Period | | | |
|--|--------|-----|--------|-----|
| <u> </u> | 1990-1 | 995 | 2005-2 | 010 |
| | ABR | TFR | ABR | TFR |
| India | 104.1 | 3.7 | 50.6 | 2. |
| Iran (Islamic Republic of) | 75.4 | 4.0 | 31.5 | 1. |
| Maldives | 109.1 | 5.3 | 11.0 | 2. |
| Nepal | 135.7 | 5.0 | 94.8 | 3. |
| Pakistan | 75.9 | 5.7 | 30.9 | 3. |
| Sri Lanka | 29.8 | 2.4 | 22.3 | 2. |
| South-Eastern Asia | 50.5 | 3.1 | 42.5 | 2. |
| Brunei Darussalam | 44.1 | 3.3 | 25.1 | 2. |
| Cambodia | 66.8 | 5.1 | 47.0 | 3. |
| Indonesia | 63.1 | 2.9 | 51.5 | 2. |
| Lao People's Democratic Republic | 104.9 | 5.9 | 75.1 | 3. |
| Malaysia | 19.0 | 3.4 | 12.8 | 2. |
| Myanmar | 29.8 | 3.1 | 16.2 | 2. |
| Philippines | 51.0 | 4.1 | 54.1 | 3. |
| Singapore | 7.9 | 1.7 | 6.0 | 1. |
| Thailand | 50.2 | 2.0 | 40.6 | 1. |
| Timor-Leste | 59.5 | 5.7 | 65.8 | 6. |
| Viet Nam | 33.7 | 3.2 | 31.7 | 1. |
| Western Asia | 67.1 | 4.0 | 41.9 | 2. |
| Armenia | 80.1 | 2.4 | 28.0 | 1. |
| Azerbaijan | 37.5 | 2.9 | 40.5 | 2. |
| Bahrain | 22.3 | 3.4 | 14.7 | 2. |
| Cyprus | 24.3 | 2.3 | 6.6 | 1. |
| Georgia | 68.9 | 2.1 | 50.9 | 1. |
| Iraq | 67.5 | 5.7 | 74.1 | 4. |
| Israel | 19.3 | 2.9 | 14.0 | 2. |
| Jordan | 49.0 | 5.1 | 29.4 | 3. |
| Kuwait | 17.9 | 2.0 | 15.1 | 2. |
| Lebanon | 39.0 | 2.8 | 12.5 | 1. |
| Oman | 72.9 | 6.3 | 13.6 | 2. |
| Qatar | 44.0 | 3.7 | 15.1 | 2. |
| Saudi Arabia | 58.7 | 5.5 | 11.6 | 3. |
| State of Palestine | 110.1 | 6.6 | 50.1 | 4. |
| Syrian Arab Republic | 67.9 | 4.8 | 44.6 | 3. |
| Turkey | 60.8 | 2.9 | 39.3 | 2. |
| United Arab Emirates | 41.7 | 3.9 | 29.9 | 2. |
| Yemen | 146.9 | 8.2 | 56.4 | 4. |
| UROPE | 31.2 | 1.6 | 19.2 | 1. |
| Eastern Europe | 48.9 | 1.6 | 26.9 | 1. |
| Belarus | 44.3 | 1.7 | 22.6 | 1. |
| Bulgaria | 66.7 | 1.6 | 42.1 | 1. |
| Czech Republic | 41.3 | 1.7 | 11.1 | 1. |
| Hungary | 36.5 | 1.7 | 19.6 | 1. |
| Poland | 30.8 | 1.9 | 15.0 | 1. |
| Republic of Moldova | 63.2 | 2.1 | 33.8 | 1. |
| Romania | 46.1 | 1.5 | 30.9 | 1. |
| Russian Federation | 51.8 | 1.6 | 29.3 | 1. |

| Development group, region, country or area | | Per | iou | |
|--|--------|-----|--------|-----|
| _ | 1990-1 | 995 | 2005-2 | 010 |
| | ABR | TFR | ABR | TFR |
| Slovakia | 45.4 | 1.9 | 20.7 | 1.3 |
| Ukraine | 58.5 | 1.6 | 30.8 | 1.4 |
| Northern Europe | 26.6 | 1.8 | 20.2 | 1.9 |
| Channel Islands | 16.6 | 1.5 | 9.9 | 1.4 |
| Denmark | 8.9 | 1.8 | 5.9 | 1. |
| Estonia | 47.1 | 1.6 | 23.0 | 1. |
| Finland | 11.4 | 1.8 | 9.2 | 1. |
| Iceland | 25.5 | 2.2 | 14.3 | 2. |
| Ireland | 16.0 | 1.9 | 16.5 | 2. |
| Latvia | 43.5 | 1.6 | 18.2 | 1. |
| Lithuania | 44.9 | 1.8 | 18.9 | 1. |
| Norway | 15.7 | 1.9 | 8.9 | 1.5 |
| Sweden | 11.4 | 2.0 | 6.0 | 1.5 |
| United Kingdom | 31.0 | 1.8 | 25.8 | 1. |
| Southern Europe | 14.9 | 1.4 | 12.0 | 1. |
| Albania | 40.0 | 2.8 | 19.5 | 1. |
| Bosnia and Herzegovina | 32.6 | 1.5 | 17.0 | 1. |
| Croatia | 17.6 | 1.5 | 13.6 | 1. |
| Greece | 17.3 | 1.4 | 11.7 | 1. |
| Italy | 8.0 | 1.3 | 6.8 | 1. |
| Malta | 13.1 | 2.0 | 18.7 | 1. |
| Montenegro | 24.8 | 1.8 | 18.6 | 1. |
| · · | 22.2 | 1.5 | 16.8 | 1. |
| Portugal | | 2.0 | 19.3 | 1. |
| | 37.1 | 1.4 | | |
| Slovenia | 12.7 | | 4.8 | 1. |
| Spain | 9.7 | 1.3 | 12.7 | 1. |
| TFYR Macedonia | 40.0 | 2.2 | 22.3 | 1. |
| Western Europe | 12.8 | 1.5 | 9.3 | 1. |
| Austria | 20.4 | 1.5 | 11.1 | 1. |
| Belgium | 10.8 | 1.6 | 10.4 | 1. |
| France | 11.0 | 1.7 | 10.0 | 2. |
| Germany | 15.9 | 1.3 | 9.8 | 1. |
| Luxembourg | 12.5 | 1.7 | 9.6 | 1. |
| Netherlands | 7.1 | 1.6 | 5.3 | 1. |
| Switzerland | 6.5 | 1.5 | 4.5 | 1. |
| ATIN AMERICA AND THE | 04.2 | 2.0 | 72.0 | 2 |
| ARIBBEAN | 84.3 | 3.0 | 73.2 | 2. |
| Caribbean | 81.7 | 2.8 | 63.9 | 2. |
| Aruba | 49.1 | 2.2 | 33.4 | 1. |
| Bahamas | 69.6 | 2.6 | 31.8 | 1.5 |
| Barbados | 57.9 | 1.7 | 49.4 | 1.3 |
| Cuba | 69.2 | 1.7 | 45.2 | 1. |
| Dominican Republic | 114.3 | 3.3 | 108.7 | 2. |
| Grenada | 83.5 | 3.5 | 42.4 | 2 |
| Guadeloupe | 25.8 | 2.1 | 19.5 | 2. |
| Haiti | 69.9 | 5.2 | 46.4 | 3. |
| Jamaica | 103.4 | 2.8 | 77.3 | 2.4 |

| Development group, region, country or area | | Per | iod | |
|--|--------|-----|--------|-----|
| _ | 1990-1 | 995 | 2005-2 | 010 |
| | ABR | TFR | ABR | TFR |
| Martinique | 28.7 | 2.0 | 22.5 | 1.9 |
| Puerto Rico | 73.2 | 2.2 | 50.0 | 1.7 |
| Saint Lucia | 94.6 | 3.2 | 61.4 | 2.0 |
| Saint Vincent and the Grenadines | 88.0 | 2.9 | 58.9 | 2.1 |
| Trinidad and Tobago | 56.1 | 2.2 | 38.1 | 1.8 |
| United States Virgin Islands | 77.0 | 2.8 | 50.0 | 2.4 |
| Central America | 88.9 | 3.4 | 76.8 | 2.6 |
| Belize | 121.7 | 4.4 | 78.7 | 2.9 |
| Costa Rica | 93.5 | 3.0 | 65.6 | 1.9 |
| El Salvador | 117.2 | 3.7 | 82.7 | 2.4 |
| Guatemala | 127.6 | 5.5 | 107.2 | 4.2 |
| Honduras | 126.5 | 4.9 | 93.1 | 3.3 |
| Mexico | 77.7 | 3.2 | 69.3 | 2.4 |
| Nicaragua | 156.6 | 4.5 | 112.7 | 2.8 |
| Panama | 93.7 | 3.0 | 84.6 | 2.6 |
| South America | 82.5 | 2.9 | 72.5 | 2.2 |
| Argentina | 73.2 | 2.9 | 56.9 | 2.3 |
| Bolivia (Plurinational State of) | 89.3 | 4.8 | 78.2 | 3.5 |
| Brazil | 83.8 | 2.6 | 75.6 | 1.9 |
| Chile | 68.1 | 2.6 | 58.5 | 1.9 |
| Colombia | 87.3 | 3.0 | 74.3 | 2.5 |
| Ecuador | 84.9 | 3.5 | 83.5 | 2.8 |
| French Guiana | 124.6 | 4.1 | 82.7 | 3.3 |
| Guyana | 71.5 | 2.5 | 101.0 | 2.8 |
| Paraguay | 92.4 | 4.3 | 72.3 | 3.1 |
| Peru | 70.0 | 3.6 | 54.7 | 2.6 |
| Suriname | 49.6 | 2.6 | 39.5 | 2.4 |
| Uruguay | 70.5 | 2.5 | 61.1 | 2.1 |
| Venezuela (Bolivarian Republic of) | 97.8 | 3.3 | 89.9 | 2.6 |
| NORTHERN AMERICA | 56.3 | 2.0 | 37.3 | 2.0 |
| Canada | 25.1 | 1.7 | 13.8 | 1.6 |
| United States of America | 59.6 | 2.0 | 39.7 | 2.1 |
| OCEANIA | 37.1 | 2.5 | 32.8 | 2.5 |
| Australia/New Zealand | 23.5 | 1.9 | 18.5 | 1.9 |
| Australia | 21.3 | 1.9 | 16.0 | 1.9 |
| New Zealand | 33.4 | 2.1 | 30.1 | 2.1 |
| Melanesia | 68.0 | 4.5 | 63.4 | 3.9 |
| Fiji | 63.4 | 3.4 | 45.2 | 2.8 |
| New Caledonia | 35.4 | 2.9 | 21.5 | 2.2 |
| Papua New Guinea | 68.6 | 4.7 | 66.9 | 4.1 |
| Solomon Islands | 84.8 | 5.5 | 70.3 | 4.4 |
| Vanuatu | 69.8 | 4.8 | 47.7 | 3.6 |
| Micronesia | 67.7 | 3.7 | 33.1 | 2.7 |
| Guam | 77.5 | 2.9 | 47.1 | 2.5 |
| Kiribati | 45.9 | 4.6 | 22.2 | 3.2 |
| Micronesia (Fed. States of) | 48.4 | 4.8 | 25.4 | 3.6 |

| Development group, region, country or area | | Pe | eriod | |
|--|--------|------|---------|-----|
| _ | 1990-1 | .995 | 2005-20 | 010 |
| | ABR | TFR | ABR | TFR |
| Polynesia | 44.9 | 4.0 | 34.1 | 3.2 |
| French Polynesia | 56.9 | 3.1 | 41.5 | 2.2 |
| Samoa | 33.7 | 4.9 | 31.7 | 4.5 |
| Tonga | 25.5 | 4.6 | 22.3 | 4.0 |

Table A.2. Annual decrease in adolescent birth rate, total fertility and contribution of adolescent birth rate to total fertility from 1990-1995 to 2005-2010, by development groups and regions

| | Total de | ecrease (per cei | nt) | | nual decreas age points pe | | Difference between annual |
|---------------------------------|----------|------------------|--------------------|------|-------------------------------|------|---|
| Development group and region | ABR | TFR | ABR as % of TFR | ABR | TFR | | decrease in ABR and TFR (percentage points) |
| WORLD | -24.1 | -16.8 | -8.9 | -1.6 | -1.1 | -0.6 | -0.5 |
| Developed regions | -31.1 | -0.6 | -30.7 | -2.1 | 0.0 | -2.0 | -2.0 |
| Developing regions | -25.0 | -20.4 | -5.7 | -1.7 | -1.4 | -0.4 | -0.3 |
| Least developed countries | -19.7 | -21.6 | 2.5 | -1.3 | -1.4 | 0.2 | 0.1 |
| Other developing countries | -30.1 | -21.8 | -10.7 | -2.0 | -1.5 | -0.7 | -0.6 |
| AFRICA | -12.9 | -14.5 | 2.0 | -0.9 | -1.0 | 0.1 | 0.1 |
| Eastern Africa | -11.9 | -15.9 | 4.8 | -0.8 | -1.1 | 0.3 | 0.3 |
| Middle Africa | -11.9 | -10.6 | -1.4 | -0.8 | -0.7 | -0.1 | -0.1 |
| Northern Africa | -25.1 | -25.8 | 1.0 | -1.7 | -1.7 | 0.1 | 0.1 |
| Southern Africa | -32.9 | -24.6 | -11.1 | -2.2 | -1.6 | -0.7 | -0.6 |
| Western Africa | -13.8 | -10.0 | -4.2 | -0.9 | -0.7 | -0.3 | -0.3 |
| ASIA | -37.2 | -24.0 | -17.4 | -2.5 | -1.6 | -1.2 | -0.9 |
| Eastern Asia | 43.3 | -19.5 | 78.1 | 2.9 | -1.3 | 5.2 | 4.2 |
| South-Central Asia | -49.6 | -30.4 | -27.5 | -3.3 | -2.0 | -1.8 | -1.3 |
| Central Asia | -32.6 | -24.8 | -10.4 | -2.2 | -1.7 | -0.7 | -0.5 |
| Southern Asia | -49.9 | -30.6 | -27.9 | -3.3 | -2.0 | -1.9 | -1.3 |
| South-Eastern Asia | -15.8 | -24.2 | 11.0 | -1.1 | -1.6 | 0.7 | 0.6 |
| Western Asia | -37.5 | -27.0 | -14.4 | -2.5 | -1.8 | -1.0 | -0.7 |
| Europe | -38.5 | -1.9 | -37.3 | -2.6 | -0.1 | -2.5 | -2.4 |
| Eastern Europe | -45.0 | -13.5 | -36.4 | -3.0 | -0.9 | -2.4 | -2.1 |
| Northern Europe | -24.3 | 3.3 | -26.7 | -1.6 | 0.2 | -1.8 | -1.8 |
| Southern Europe | -19.6 | 0.7 | -20.2 | -1.3 | 0.0 | -1.3 | -1.4 |
| Western Europe | -27.4 | 10.1 | -34.0 | -1.8 | 0.7 | -2.3 | -2.5 |
| Latin America and the Caribbean | -13.2 | -23.8 | 14.0 | -0.9 | -1.6 | 0.9 | 0.7 |
| Caribbean | -21.8 | -16.5 | -6.3 | -1.5 | -1.1 | -0.4 | -0.3 |
| Central America | -13.6 | -25.6 | 16.0 | -0.9 | -1.7 | 1.1 | 0.8 |
| South America | -12.1 | -24.0 | 15.6 | -0.8 | -1.6 | 1.0 | 0.8 |
| Northern America | -33.7 | 1.0 | -34.4 | -2.2 | 0.1 | -2.3 | -2.3 |
| Oceania | -11.5 | -0.8 | -10.7 | -0.8 | -0.1 | -0.7 | 0.0 -0.7 |
| Australia/New Zealand | -21.0 | 1.6 | -22.2 | -1.4 | 0.1 | -1.5 | -1.5 |
| Melanesia | -6.8 | -13.1 | 7.3 | -0.5 | -0.9 | 0.5 | 0.4 |
| Micronesia | -51.2 | -25.4 | -34.5 | -3.4 | -1.7 | -2.3 | -1.7 |
| Polynesia | -24.0 | -19.9 | -5.0 | -1.6 | -1.3 | -0.3 | -0.3 |

Table A.3. Annual decrease in adolescent birth rates between 1990-1995 and 2005-2010 $\,$

| ABR category, 1990-1995 | < -3.0 or lower | adolescent birth rates (-2.0 to -2.9 | -1.0 to -1.9 | > -1.0 |
|-----------------------------|---|---|--|--|
| High, 80 or more births per | Bhutan | Botswana | Angola | Burkina Faso |
| 1000 adolescent women | India | Eritrea | Benin | Congo |
| 1000 adolescent women | Maldives | Ghana | Cameroon | Côte d'Ivoire |
| | State of Palestine | São Tomé and | Cabo Verde | Dem. Rep. of the |
| | Yemen | Príncipe | Central African | Congo |
| | Temen | South Africa | Republic | Equatorial Guinea |
| | Grenada | South Sudan | Chad | Guinea-Bissau |
| | Gichada | Swaziland | Ethiopia | Kenya |
| | | Zimbabwe | Gabon | Lesotho |
| | | Zillioaowe | Gambia | Liberia |
| | | Afahanistan | Guinea | Madagascar |
| | | Afghanistan | | C |
| | | Bangladesh | Mauritania | Malawi |
| | | Nepal | Namibia | Mali |
| | | - · | Senegal | Mozambique* |
| | | Belize | Togo | Niger |
| | | Costa Rica | Uganda | Nigeria |
| | | El Salvador | | Sierra Leone |
| | | French Guiana | Lao People's Dem. | Somalia* |
| | | Saint Lucia | Rep. | Sudan |
| | | Saint Vincent and | | United Rep. of |
| | | the Grenadines | Colombia | Tanzania |
| | | | Guatemala | Zambia* |
| | | | Honduras | |
| | | | Jamaica | Bolivia |
| | | | Nicaragua | Brazil |
| | | | Paraguay | Dominican |
| | | | | Republic |
| | | | Solomon Islands | Ecuador |
| | | | Boromon Islands | Panama |
| | | | | Venezuela |
| Medium, 19 to 80 births per | Algeria | Burundi | Comoros | Mayotte* |
| 1000 adolescent women | Djibouti | Egypt | Mauritius | Réunion |
| 1000 adolescent women | Western Sahara | Morocco | Rwanda | Seychelles |
| | western Sanara | MOTOCCO | Kwanua | Seychenes |
| | Armenia | Bahrain | Georgia | Azerbaijan* |
| | Cyprus | Brunei Darussalam | Indonesia | Iraq* |
| | Iran (Islamic Rep. | Cambodia | Israel | Philippines |
| | of) | Jordan | Sri Lanka | Timor-Leste* |
| | Kazakhstan | Malaysia | Tajikistan | Viet Nam |
| | | | | |
| | | • | • | v ict i tuiii |
| | Kyrgyzstan | Syrian Arab | Thailand | |
| | Kyrgyzstan Lebanon | Syrian Arab Republic | Thailand Turkmenistan | Chile |
| | Kyrgyzstan Lebanon Mongolia | Syrian Arab | Thailand Turkmenistan United Arab | Chile Guyana* |
| | Kyrgyzstan Lebanon Mongolia Myanmar | Syrian Arab Republic Turkey | Thailand Turkmenistan United Arab Emirates | Chile Guyana* Mexico |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman | Syrian Arab Republic Turkey Bulgaria | Thailand Turkmenistan United Arab | Chile Guyana* |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan | Syrian Arab Republic Turkey Bulgaria Iceland | Thailand Turkmenistan United Arab Emirates Uzbekistan | Chile Guyana* Mexico Uruguay |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar | Syrian Arab Republic Turkey Bulgaria Iceland Romania | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro | Chile Guyana* Mexico Uruguay |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal | Chile Guyana* Mexico Uruguay New Zealand Papua New |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia | Syrian Arab Republic Turkey Bulgaria Iceland Romania | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom Argentina | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom Argentina | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia Albania Austria Belarus | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia Aruba Cuba | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom Argentina Barbados | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia Albania Austria Belarus Bosnia and Herzegovina | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia Aruba Cuba Haiti | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom Argentina Barbados Guadeloupe | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia Albania Austria Belarus Bosnia and Herzegovina Czech Republic | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia Aruba Cuba Haiti Puerto Rico Trinidad and | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom Argentina Barbados Guadeloupe Martinique Peru | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia Albania Austria Belarus Bosnia and Herzegovina Czech Republic Estonia | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia Aruba Cuba Haiti Puerto Rico Trinidad and Tobago | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom Argentina Barbados Guadeloupe Martinique | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |
| | Kyrgyzstan Lebanon Mongolia Myanmar Oman Pakistan Qatar Saudi Arabia Albania Austria Belarus Bosnia and Herzegovina Czech Republic | Syrian Arab Republic Turkey Bulgaria Iceland Romania Russian Federation TFYR Macedonia Aruba Cuba Haiti Puerto Rico Trinidad and | Thailand Turkmenistan United Arab Emirates Uzbekistan Montenegro Portugal United Kingdom Argentina Barbados Guadeloupe Martinique Peru | Chile Guyana* Mexico Uruguay New Zealand Papua New Guinea Samoa |

| ABR category, 1990-1995 | < -3.0 or lower | -2.0 to -2.9 | s (percentage points per -1.0 to -1.9 | > -1.0 |
|----------------------------|---------------------------|-------------------|--|-------------------|
| 11511 (4110801), 1770 1775 | Poland | United States of | French Polynesia | 7 1.0 |
| | Republic of | America | Trenent Torynesia | |
| | Moldova | 7 Hilorica | | |
| | Serbia | Guam | | |
| | Slovakia | New Caledonia | | |
| | Ukraine | Vanuatu | | |
| | Bahamas | | | |
| | Canada | | | |
| | Kiribati | | | |
| | Micronesia (Fed. States) | | | |
| Low, < 19 births per 1000 | Libya | Channel Islands | Kuwait | China* |
| adolescent women | Tunisia | Denmark | Singapore | Japan* |
| | China Hong Vong | Germany Greece | Croatia | Dolaium |
| | China, Hong Kong SAR | Norway | Finland | Belgium France |
| | China, Macao | Switzerland | | Ireland |
| | SAR | Switzerianu | Italy Luxembourg | Malta* |
| | Dem. People's | | Netherlands | Spain* |
| | Rep. of Korea | | Netherlands | Spain. |
| | Other non- | | | |
| | specified areas | | | |
| | Republic of Korea | | | |
| | Slovenia | | | |
| | Sweden | | | |

^{*} Adolescent birth rates increased in these countries

 $Table\ A.4.\ Countries\ or\ areas\ with\ high\ contribution\ of\ adolescent\ birth\ rate\ to\ total\ fertility,\ 2005-2010$

Medium ABR High ABR

| | Developing countries | | Developed countries | Develonir | ng countries |
|---|------------------------|-------------------|---------------------|-------------------|------------------|
| | Botswana | Costa Rica | Bulgaria | Angola | Sudan |
| | Mauritius | Cuba | Republic of Moldova | Benin | Swaziland |
| | Namibia | Grenada | Romania | Burkina Faso | Togo |
| Н | Réunion | Jamaica | Russian Federation | Cameroon | Uganda |
| | São Tomé and Príncipe | Mexico | Ukraine | Cabo Verde | Tanzania, United |
| ; | Seychelles | Paraguay | | Central African | Rep. |
| | South Africa | Peru | United States of | Republic | Zambia |
| | Zimbabwe | Puerto Rico | America | Chad | |
| | | Saint Lucia | | Congo | Afghanistan |
| | Azerbaijan | Saint Vincent and | | Côte d'Ivoire | Bangladesh |
| | Bhutan | the | | Democratic | Nepal |
| | Georgia | Grenadines | | Republic | |
| | India | Trinidad and | | of the Congo | Dominican |
| | Indonesia | Tobago | | Equatorial Guinea | Republic |
| | Iran (Islamic Republic | United States | | Ethiopia | Ecuador |
| | of) | Virgin | | Gabon | El Salvador |
| | Iraq | Islands | | Gambia | French Guiana |
| | Lao People's Dem. | Uruguay | | Guinea | Guatemala |
| | Rep. | | | Guinea-Bissau | Guyana |
| | Thailand | French Polynesia | | Kenya | Honduras |
| | Turkey | Guam | | Lesotho | Nicaragua |
| | Uzbekistan | | | Liberia | Panama |
| | Viet Nam | | | Madagascar | Venezuela |
| | | | | Malawi | (Bolivarian |
| | Argentina | | | Mali | Rep. of) |
| | Aruba | | | Mayotte | |
| | Bahamas | | | Mozambique | |
| | Barbados | | | Niger | |
| | Belize | | | Nigeria | |
| | Bolivia (Plurinational | | | Senegal | |
| | State of) | | | Sierra Leone | |
| 1 | Brazil | | | Somalia | |
| | Chile | | | South Sudan | |
| | Colombia | | | | |

 $TABLE\ A.5.\ COUNTRIES\ OR\ AREAS\ WITH\ LOW\ CONTRIBUTION\ OF\ ADOLESCENT\ BIRTH\ RATE\ TO\ TOTAL\ FERTILITY,\ 2005-2010$

| | Low | Low ABR | | Medium ABR | |
|---|----------------------|---------------------|------------------------|-------------|----------------------|
| | Developing | | Developing | Developed | |
| | countries | Developed countries | countries | countries | Developing countries |
| | Algeria | Japan | Burundi | Albania | Mauritania |
| | Libya | • | Comoros | Belarus | |
| | Tunisia | Austria | Djibouti | Estonia | |
| | | Belgium | Egypt | Hungary | |
| | Bahrain | Bosnia and | Eritrea | Lithuania | |
| | China | Herzegovina | Ghana | Serbia | |
| | China, Hong Kong | Channel Islands | Morocco | Slovakia | |
| L | SAR | Croatia | Rwanda | TFYR | |
| O | China, Macao SAR | Czech Republic | Western Sahara | Macedonia | |
| W | Cyprus | Denmark | | United | |
| | Korea, Dem. People's | Finland | Armenia | Kingdom | |
| c | Rep. | France | Brunei Darussalam | | |
| О | Israel | Germany | Cambodia | New Zealand | |
| n | Kuwait | Greece | Jordan | | |
| t | Lebanon | Iceland | Kazakhstan | | |
| r | Malaysia | Ireland | Kyrgyzstan | | |
| i | Maldives | Italy | Mongolia | | |
| b | Myanmar | Latvia | Pakistan | | |
| u | Oman | Luxembourg | Philippines | | |
| t | Other non-specified | Malta | Sri Lanka | | |
| i | areas | Montenegro | State of Palestine | | |
| О | Qatar | Netherlands | Syrian Arab | | |
| n | Republic of Korea | Norway | Republic | | |
| | Saudi Arabia | Poland | Tajikistan | | |
| 0 | Singapore | Portugal | Timor-Leste | | |
| f | | Slovenia | Turkmenistan | | |
| | | Spain | United Arab | | |
| A | | Sweden | Emirates | | |
| В | | Switzerland | Yemen | | |
| R | | C 1 | 0 11 | | |
| | | Canada | Guadeloupe | | |
| t | | A 1: - | Haiti | | |
| 0 | | Australia | Martinique Suriname | | |
| Т | | | Fiji | | |
| F | | | riji Kiribati | | |
| R | | | Micronesia | | |
| K | | | (Fed. States of) | | |
| | | | New Caledonia | | |
| | | | Papua New Guinea | | |
| | | | Samoa | | |
| | | | Solomon Islands | | |
| | | | Tonga | | |
| | | | Vanuatu | | |
| | | | , anutu | | |

Annex figure 1. Cumulative population of female adolescents by level of adolescent birth rate in the developing and developed regions, 1990-1995 and 2005-2010

