

Powerful Partners

Adolescent Girls' Education and Delayed Childbearing

by Elaine Murphy and Dara Carr

More-educated women have fewer children. This seemingly straightforward relationship is actually complex, and the benefits associated with different levels of education can vary considerably by setting.

This policy brief describes adolescent girls' reproductive health risks and how increasing their educational attainment reduces those risks, including early and unwanted fertility, and benefits their future families and society. This brief also highlights some factors that contribute to this powerful education-fertility dynamic. Many successful programs are keeping adolescent girls in school and many programs offer reproductive health information and services out of school, including family planning. Combining such programs may yield more benefits than either one alone.

Adolescent Sex Still Puts Young Women at Risk

Reproductive health prospects for teenage girls in developing countries have changed in the last 20 years. On average, teenage girls marry later than their mothers, delay childbearing longer, and have fewer children.¹ However, they still face substantial risks:

- Complications of pregnancy and delivery are the main causes of death for girls ages 15 to 19.

Maternal mortality rates for this group are twice as high as the rates for women in their 20s. Girls age 14 or younger are five times more likely to die from pregnancy complications. Their babies are also less likely to survive.²

- Each year, almost 5.5 million girls ages 15 to 19 give birth. They have higher levels of unwanted pregnancy and more than 1 million have unsafe abortions.³
- Only 35 percent of single, sexually active girls ages 15 to 19 use a modern method of contraception, a rate considerably lower than the rate for older women. Regardless of marital status, teenage girls' rates of contraceptive use are low everywhere: in sub-Saharan Africa, the rate is about 20 percent; in Central America and the Caribbean, 24 percent; in South America, 28 percent; and in South Asia, under 20 percent.⁴
- Child marriage—defined as marriage before age 18—has declined but is still widespread, ranging from over 40 percent in large parts of South Asia and sub-Saharan Africa to 23 percent in South America, western Asia, and North Africa. In Niger, 76 percent of girls are married before age 18; in Chad, 35 percent of girls are married at age 14 or younger.⁵
- Adolescent girls are especially vulnerable to sexually transmitted infections (STIs), including HIV. Very few have accurate information about HIV and AIDS, and very few use condoms. Married adolescent girls are at higher risk for HIV than unmarried girls their own age or older married women because these girls have little bargaining power to insist on condom use if they suspect their husbands are unfaithful.⁶

The reproductive risks these girls face are linked to lower levels of schooling and to underlying factors of poverty, poor nutrition, and reduced access to health care.

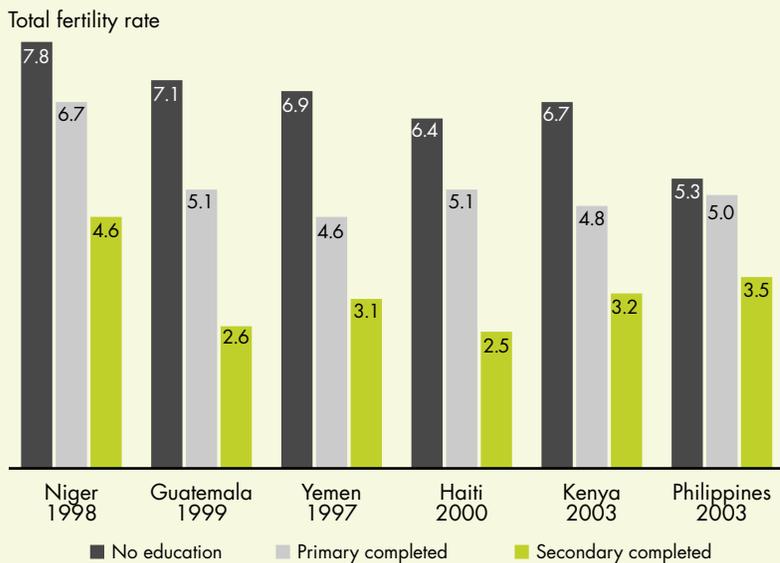


The Relationship Between Education and Fertility Is Strong

The strong link between female education and lower fertility is virtually universal, though not identical among countries (see Figure 1). Research in the 1960s and 1970s found that low levels of education in very poor countries with little or no social or economic development were not associated with lower fertility. However, more recent studies have observed lower fertility among women who had only a few years of primary school. These results have occurred in countries experiencing economic growth and social development. Nonetheless, secondary school has a more consistent and stronger effect on delay of childbearing, increased use of contraception, desire for fewer children, and actual reduced fertility.⁷ For example, a 35-year study in Guatemala found a causal link between the years girls spent in school and the timing of childbearing. For each additional year a young woman spent in school, the age at which she had her first child was delayed approximately six to 10 months. Each year of schooling also reduced the likelihood of a girl under 18 having a child by 14 percent to 23 percent.⁸ The direction of the association can go the other way as well: The ability of adolescent girls to avoid pregnancy while they are students helps ensure that they can complete their schooling.

Figure 1

WOMEN'S EDUCATION AND TOTAL FERTILITY RATE, SELECTED COUNTRIES



SOURCE: Demographic and Health Surveys, various years.

Women who bear their first child early usually have larger families than those who wait longer. But education also reverses this relationship: Women who wait longer to have their first child want and have fewer children. And these women may also work outside the home—especially if they live in urban areas. Their children's economic value—to provide income—is thus diminished. Educated women are more likely to know about and use modern contraception and to practice healthy birth spacing of about three years. This knowledge gives a woman more confidence that she and her children will survive, reinforcing her desire to have fewer births.

Educating Adolescents Inspires a 'Virtuous Cycle'

In addition to the effects noted above, what are some additional benefits with secondary-level education for girls? Two of the eight United Nations' Millennium Development Goals focus on girls' education. May Rihani, a gender and education specialist, has identified these benefits:

- The presence of secondary schools increases primary enrollment and completion, and improves quality via greater parental involvement.
- Girls' secondary education results in social benefits to the whole society—increased civic and political participation, lowered levels of sexual harassment, and reduced sexual and labor trafficking of young women.
- Girls' secondary education is associated with a multitude of health benefits in addition to those associated with delayed marriage and fertility: decreased infant and child mortality, higher immunization rates, improved household nutrition, and lower rates of domestic violence.
- Girls' secondary education can mitigate HIV and AIDS by offering information on ways to prevent HIV and encouraging future-oriented thinking and self-protective behavior. Numerous studies link higher education levels with delayed sexual initiation and reduced risk of HIV.
- Girls' secondary education is a tool for poverty alleviation. Increasing the percentage of women with secondary education boosts national per capita income growth.

Rihani describes the "vicious cycle" of low participation of girls in secondary education followed by early

and frequent childbearing, high infant and child mortality, an inability to break out of poverty, and early marriage and childbearing in the next generation. The “virtuous cycle,” however, changes the pattern through high secondary school participation, later marriage and childbearing, fewer and healthier children, greater civic participation, and a greater likelihood of sending daughters to secondary school (an intergenerational benefit).⁹

Why Does Girls’ Education Result in Lower Fertility and Other Benefits?

Although experts debate why the payoff is so great, girls’ secondary education yields many benefits. Clearly, literacy and other skills acquired in school confer practical advantages, but it may be that a psychological change in the young woman is equally important. Some analysts conclude that more schooling, particularly secondary education and beyond, gives a young woman a new sense of responsibility for herself—an empowerment to shape her own future rather than having her future shaped first by her father and then by her husband. According to Rihani, “This empowerment begins with the acknowledgement by a parent or society that girls and women need and deserve a secondary level of education—that more is expected of them than the ability to keep a good home.” More-educated women are significantly less likely to experience domestic violence, which reflects the respect their husbands and families have for them.¹⁰

Along the same lines, Shireen Jejeebhoy, in her groundbreaking research, lists five outcomes of education that collectively increase a young woman’s ability to act in healthy and productive ways. These outcomes are: enhanced knowledge of and greater exposure to what is happening in the outside world; greater decisionmaking autonomy in the home; greater physical autonomy in interacting with the outside world; greater emotional autonomy (and closer bonds with husband and children); and greater economic and social autonomy and self-reliance.¹¹ Amartya Sen, an economist and Nobel laureate, refers to such transformations as women’s “agency”: No longer the passive recipients of assistance to improve their lot, women in many societies are now active agents of change. He contrasts the social development changes that reduced fertility rates dramatically in Kerala State, India, with India’s earlier coercive sterilization program and China’s one-child policy. Sen concludes: “There is much evidence now . . . that women’s empowerment (including female education, female employment activities and female property rights) and other social changes (such as mortality reduction) have a very strong effect in reducing fertility.”¹² A World Bank study of 65 countries drew a similar conclusion: “. . . the expansion of female secondary education may be the best policy for achieving substantial reductions in fertility.”¹³

Gender Inequity Persists and Adversely Affects Girls’ Education

School enrollment rates for both boys and girls in primary and secondary schools have risen dramatically in recent years, with more progress made in enrolling girls. The enrollment gap between boys and girls is closing around the world. In Latin America and the Caribbean, this gap is virtually closed. But there are still significant discrepancies in some countries (see table). Without high and equal enrollment in primary schools, there is little hope for universal and gender-equitable secondary school completion. Unfortunately, UNESCO and UNICEF estimate that more than 115 million 6-to-12-year olds are not in school in the developing world and three-fifths of them are girls.¹⁴ The poorest girls are particularly disadvantaged. For example, a study in India in the 1990s found that for the richest households, boys’ enrollment rate exceeded girls’ by only 2.5 percent, while for the poorest households, boys’ enrollment was 24 percent higher than girls’.¹⁵

While many schools in low-income countries are of poor quality, girls who go to school generally encounter even lower-quality education because of gender discrimination. Girls often lack basic supplies and books, and even separate latrines. Many girls are required to do menial work for teachers and some are subject to sexual predation by male teachers.¹⁶ In countries where boys and girls attend school separately, less-qualified teachers are more likely to be assigned to girls’ schools and shortages of female teachers result in large class sizes. Moreover, girls’ schools are sometimes located far from their homes. Safety and quality concerns prompt many parents to pull their daughters out of school or not to enroll them at all.¹⁷

In addition, preference for boys can result in poorer nutrition of girls, an impediment to learning that also increases the likelihood of illness and resulting absenteeism.¹⁸ Because poor households have more children, older girls rather than boys are withdrawn from school to help with younger siblings and chores. In addition to paying school fees, parents who send their daughters to school lose their labor. Scholarships for girls who stay in secondary school, vouchers, and payments to

BOYS AND GIRLS ENROLLED IN SECONDARY SCHOOL, LATEST YEAR 2000/2004

	Benin	Ethiopia	Yemen	India
Girls	17%	16%	29%	47%
Boys	38%	28%	65%	58%

SOURCE: Lori Ashford, Donna Clifton, and Toshiko Kaneda, *The World’s Youth Data Sheet 2006* (Washington, DC: Population Reference Bureau, 2006).

parents who invest in their children’s education—called “conditional cash transfers”—can help overcome these barriers. Finally, the economic returns of women’s secondary education are closely tied to the availability of higher-quality and better-paying jobs—and whether women have the skills for and equitable access to these jobs.¹⁹ Without improvements in the quantity and quality of girls’ education and simultaneous efforts to address gender inequity, many young women will miss the opportunities secondary schooling could give them, including economic advancement and the opportunity to plan the timing and number of their children. Fortunately, several promising initiatives address these challenges.

Other Programs Can Reduce Fertility

Informal education programs that teach literacy and other skills are also associated with lower fertility, although not to the same extent as secondary schooling. For example, widespread exposure to mass media may fulfill some roles of formal education in disseminating information and changing attitudes about childbearing. Certain microcredit programs and initiatives, such as hiring adolescent girls to work in garment factories in Bangladesh, have also been found to delay marriage and childbearing. In addition, well-organized family planning programs, such as door-to-door delivery of contraceptives in Bangladesh, have helped poor and less-educated women throughout the world use contraception and thus have fewer children.²⁰

Social marketing programs have also helped young people avoid unwanted pregnancy and HIV infection. Government and nongovernmental efforts to inform youth about high-risk sex and create “youth-friendly” clinics have increased the number of people who use family planning and HIV and AIDS services (see Figure 2). Many peer education programs effectively reach vulnerable, marginalized, and socially excluded young people. Programs that specifically reach out to young men with reproductive health and gender equity messages have helped both young men and women. Project H, which worked with gang members in the slums of Rio de Janeiro, is a vibrant example.²¹

Some Programs Combine Schooling and Information on Contraception

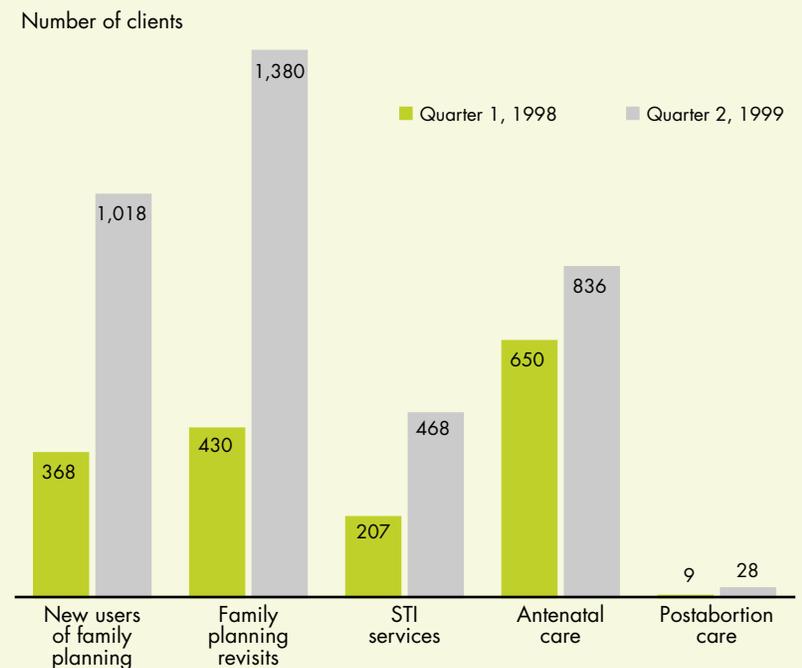
An increasing number of schools recognize the importance of preventing pregnancy and STIs and offer family life education courses that cover topics such as sexuality, relationships, family planning, and HIV

and AIDS. Although there have been concerns that such programs could increase promiscuity, a systematic review found no such effect. In fact, well-designed programs had sustained impact in delaying age at first intercourse; increasing contraceptive use (including condoms for STI protection); and preventing pregnancy. These programs also reduced the frequency of sex and the number of sexual partners among teens already sexually active.

But some girls do get pregnant while in school. While it is still common for schools in developing countries to expel pregnant girls or force them to take extended maternity leave, more schools are permitting them to stay. A few programs have successfully linked schools with reproductive health facilities. A program in Chile combined school-based discussions and counseling with services provided by a team of nurses and social workers; an evaluation documented delays in age at first intercourse and greater use of contraception.²²

Figure 2

CHANGES IN 10-TO-24-YEAR-OLDS’ USE OF REPRODUCTIVE HEALTH SERVICES AFTER INTRODUCTION OF YOUTH-FRIENDLY SERVICES IN TWO PILOT CLINICS IN LUSAKA, ZAMBIA



SOURCE: Family Planning Service Expansion and Technical Support (SEATS II)/John Snow, Inc., *Mainstreaming Quality Improvement in Family Planning and Reproductive Health Services Delivery: Context and Case Studies* (Washington, DC: John Snow, Inc., 2000): 33.

Policy Implications

A wealth of research has found that investing in girls' education is a "best buy" that benefits young women, their future families, their communities, and their countries. Other research points to the importance of providing reproductive health information and youth-friendly services to young people (see box). Taken together, the research suggests that countries should strengthen policies to:

- Intensify efforts to achieve the UN's Millennium Development Goal 2, "Achieve universal primary education," and Goal 3, "Promote gender equality and empower women."
- Promote universal secondary education for all and ensure better quality of schooling and nutrition of students, particularly for girls.
- Implement strategies to enroll and keep girls in school, including conditional cash transfers, vouchers, and scholarships; overcome obstacles such as distances to school, shortage of female teachers, and lack of hygienic facilities.
- End child marriage.
- Expand population, reproductive health, and AIDS education in both formal and informal education; ensure that adolescent girls can participate in these programs.
- Expand youth-friendly family planning and reproductive health programs, including outreach and counseling services for adolescents.
- Encourage media coverage of the negative consequences of early and unwanted pregnancies and related reproductive health and issues, through channels that reach young people.
- Work to increase literacy and other skills among out-of-school adolescent girls and women.
- Provide employment and earning opportunities for educated young women, free of gender discrimination.
- Work to eliminate gender inequity in all aspects of society, beginning with childhood.

CHARTING THE UNCHARTED PASSAGE

In 1998, the authors of *The Uncharted Passage: Girls' Adolescence in the Developing World* wrote:

Adolescence is a powerfully formative time of transition to adulthood, roughly concurrent with the second decade of life. What happens between the age of 10 and 19, whether for good or ill, shapes how girls and boys live out their lives as women and men—not only in the reproductive arena, but in the social and economic realm as well. Yet, despite its impact on human development, adolescence has been sidelined as a research and policy subject in developing countries. As a result, we know little about young people's lives in these societies.

This call for action has fostered numerous in-depth studies of adolescence and evidence-based advocacy on behalf of adolescents' needs for education, gender equity, health (particularly reproductive health), and their preparation for their future roles as parents, workers, and citizens. All these reports confirm the crucial importance of girls' education and delayed childbearing.

Many other relevant resources (see list below) provide a treasure trove of data, analyses, and the contextual factors that strengthen or weaken the relationship between girls' education and adolescent fertility. For example, PATH's *Reproductive Health Outlook* has a continuously updated feature on adolescent reproductive health. The Interagency Youth Working Group posts a wealth of relevant publications, tools, and training materials on its website.

These resources also provide examples of effective programs that can overcome obstacles in both girls' education and reproductive health.

RESOURCES

- Joel E. Cohen et al., *Educating All Children: A Global Agenda* (Cambridge, MA: American Academy of Arts and Sciences, 2006).
- Caren Grown et al., *Taking Action: Achieving Gender Equality and Empowering Women* (New York: UN Millennium Project Task Force on Education and Gender Equality, 2005).
- Interagency Youth Working Group: www.infoforhealth.org/youthwg.
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For More Information

This policy brief is on the PRB website: www.prb.org.
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- ⁵ National Research Council and Institute of Medicine, *Growing Up Global*.
- ⁶ John Bongaarts, "Late Marriage and the HIV Epidemic in sub-Saharan Africa," *Working Paper No. 216* (New York: Population Council, 2006): 10-11.
- ⁷ Ian Diamond et al., "Female Education and Fertility: Examining the Links," in *Critical Perspectives on Schooling and Fertility in the Developing World*, ed. Caroline H. Bledsoe et al. (Washington DC: National Academies Press, 1999): 23-45.
- ⁸ Jere Behrman et al., "What Determines Post-School Skills? Impact of Pre-School, School Years and Post-School Experiences in Guatemala," cited in *World Development Report 2007: Development and the Next Generation* (Washington DC: World Bank, 2006): 147.
- ⁹ May A. Rihani, *Keeping the Promise: Five Benefits of Girls Secondary Education* (Washington DC: Academy for Educational Development, 2006): 32-64.
- ¹⁰ Shireen J. Jejeebhoy, "Wife-Beating in Rural India: a Husband's Right? Evidence From Survey Data," *Economic and Political Weekly* 23, no. 15 (1998): 855-62.
- ¹¹ Shireen J. Jejeebhoy, *Women's Education, Autonomy, and Reproductive Behaviour: Experience from Developing Countries* (Oxford, England: Clarendon Press, 1995): 36-59.
- ¹² Amartya Sen, *Development as Freedom* (New York: Anchor Books, 1999): 189-226.
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Acknowledgments

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