Query: What evidence exists that draws links between secondary education (reproductive / child health/ female empowerment) and reduced fertility in India, and more broadly in Bangladesh / Asia?

Enquirer: DFID UK

Contents

1. Summary of Findings
2. Education and Fertility
3. Education and Fertility in India and the Region
4. Economic Returns to Women’s Education in India
5. Other Key Books
6. Education and Reproductive Health Initiatives
7. Adolescent Reproductive Health Programmes
8. Additional Information

1. Summary of Findings

In reviews of regional and global studies:

- There is little or conflicting evidence that there is a systematic relationship between basic education and reduced fertility.
- However, there is a significant correlation between secondary education for women and a reduced fertility rate. Steep fertility decline often occurs when a woman has had 7 or more years of education.
- The correlation between education and fertility is the result of several complex social and economic phenomena.
- Women with primary education tend to have higher fertility than women with secondary–plus education, and women with no schooling tend to have higher fertility than women with primary education.
- Women with a secondary education are much more likely to perceive that they have greater autonomy, which in turn leads to greater control of reproductive decisions.
- In some of the least developed countries, basic education may have a positive effect on fertility, but the fertility enhancing impact of school has become increasingly rare.

In India-specific studies:

- Female education has a negative and significant effect on the fertility rate, but there are complex routes to India’s demographic transition.
- There is evidence to show that India’s fertility decline is now being driven by illiterate women.
- However, education continues to be central to this decline.
- The Community-level effect of Education is an important factor in a reduced fertility rate. The role of 'educational diffusion' is an accepted mechanism by which uneducated women are influenced by the fertility behaviour of others.
- Variables related to women’s empowerment and agency have a strong and statistically significant negative impact on female disadvantage, whereas those relating to general economic development and modernization do nothing to improve the relative survival chances of boys vis-à-vis girls.
- A changed direction of causality must be considered: Fertility is also becoming driven by Educational decisions.

Evidence to show return to investment in women’s education in India include:
- Classical arguments by Becker, Schultz and Psacharopolous regarding investment in human capital and the rates of return to investment in education are applicable to the Indian context.
- Investment in women’s education, in particular at the middle, secondary and higher secondary levels is more profitable than that for men. The returns to women’s primary and middle levels of education have declined while those to secondary and college levels have increased during the decade 1983-1994.
- Returns to education are more significant for regular labourers than casual labourers.
- Women face poorer economic incentives to invest in schooling than boys because they reap lower labour market returns to education than boys

Two comprehensive lists of Reproductive health programmes in India can be found in the reports:
- Adolescent Reproductive Health in India: Status, Policies, Programs and Issues (Futures Group International/Policy Project)
- Young Peoples Sexual and Reproductive Health in India: Policies, Programmes and realities (Population Council)

2. Education and Fertility

‘Is Education the Best Contraceptive?’
Policy Brief, Population Reference Bureau, Measure Communication, 2000

This concise and well written policy brief examines the links between education and childbearing in a global context. Using accepted key reference documents, they distil their findings as follows:
- Women with more schooling tend to have smaller healthier families.
- The relationship between women’s education and family sizes varies across settings.
- Steep fertility decline often occurs among women who have had seven or more years of education.
- National Context size is important in influencing family size, especially when female education levels are low.
- Literacy skills appear to have a pronounced impact on family size.
- Young women who are exposed to education- particularly at secondary levels, may be more likely to perceive that they have greater autonomy.
- Efforts to improve educational attainment must continue regardless of any impact on child bearing practices.

Female Education and Fertility: Examining the links
by Diamond, I. et al., in Bledsoe, C. et al. (eds.) Critical Perspectives on Schooling and Fertility in the Developing World, Committee on Population, National Research Council, 1999
In this paper, Diamond et al. examine the pathways through which female education influences fertility, basing much of their investigation on studies in South Asia. They find that the relationship between the two is non-linear and complex, and note:

- In an evaluation of 59 studies, Jejeebhoy (1995) categorises four patterns in the studies she reviews:
  - Fertility falls in a monotonically with increased years of schooling (26/59 studies)
  - The initial years of schools show no effect, or an increase in fertility, followed by a consistent fall- ‘a “seven” shape’ (13/59 studies)
  - The initial years of schooling increase fertility but this falls after several years of schooling- ‘an ‘inverted “U” shape’ (13/59)
  - There is no relationship and fertility rises monotonically with increased education (7/59)

- Jejeebhoy’s study shows that at primary level, there is little evidence of a systematic relationship, however at secondary level, the relationship is always negative. The countries in which there is no relationship are almost exclusively sub-Saharan (6/7 studies).

- It is important to consider individual level data when attempting to identify the ways in which women’s education influences fertility. World Fertility Surveys and National Demographic and Health Surveys have done so in India.

- The education pathways which influence fertility are complex: education facilitates a wider set of skills to interpret mass media, deal with bureaucracy, enter the labour market etc.

- The relationship between secondary education and fertility may be attributable to the fact that in developing countries girls who attend secondary school for a select group that might be expected to have lower fertility anyway.

- It is likely that in the above cases women may already be exposed to low family size norms since the high cost of secondary mean we could expect it to biased towards families with fewer competing siblings.

- The relationship between higher education and fertility is undoubtedly negative.

- Education does not work in isolation to affect fertility. The existence of mass primary education, the presence of an active family planning programme, social and ideational influences, level of autonomy, and employment opportunities are only some of the key influential factors which might result in fertility decline.

Completing the Fertility Transition in the Developing World: The Role of Educational Differences and Fertility Preferences

This study assesses fertility patterns in developed and less developed countries and concludes that the educational composition of a population remains a key predictor of the overall fertility rate in late transitional countries, and that low levels of schools can be a cause of stalling fertility. Bongaarts writes “The fertility decline now underway in many less developed countries are almost invariable associated with substantial fertility differences among socio-economic sub groups. Women with primary education tend to have higher fertility than women with secondary-plus education, and women with no schooling tend to have higher fertility than women with primary education.

Women’s Education and Fertility: Results from 26 Demographic and Health Surveys
This examination of data from 26 countries’ demographic and health surveys confirms that higher education is consistently associated with lower fertility. There is however considerable diversity between the strength of the association at higher and lower ends of education experience. In some of the least developed countries, basic education may have a positive effect on fertility, but the fertility enhancing impact of school has become increasingly rare. The study confirms that education enhances women’s ability to make reproductive choices.

**Women’s Education and Fertility: the Direct Relationship**

This seminal book suggests seven key points of interest regarding the direct relationship between education and fertility which are based upon a review of 59 studies conducted all over the world. They include:

- In the early stages of development, as measured by income and literacy levels, and in settings with wide gender disparities in literacy, a small amount of education may increase fertility.
- An inverse relationship is observed largely in countries with higher levels of development and more egalitarian settings.
- In most societies there appears to be a threshold level of education beyond which marked differentials in fertility are generated: the highest thresholds exist in the least developed societies and those in which gender disparities in literacy levels are widest; only among more developed societies do the thresholds drop to zero years of schooling. Correspondingly, the level of education at which fertility is highest falls systematically with improvements in income, literacy, and gender disparities in literacy.
- Differentials between the least and most educated women become progressively wider with improvement in literacy and income levels and the narrowing of gender disparities in literacy.
- The relationship between education and fertility is dynamic, changing its shape over time from curvilinear to inverse and from sharply inverse to moderately inverse.
- Even within countries, the shape of the relationship is not uniformly inverse.
- The impact of women’s education on fertility is usually stronger than that of men’s education or household socio economic characteristics.

### 3. Education and Fertility in India and the Region

**Female Education and Fertility Decline: Recent Developments in the Relationship**
[www.informaworld.com/index/35QL0MYF08GYNAT4.pdf](http://www.informaworld.com/index/35QL0MYF08GYNAT4.pdf)

Of the articles surveyed for this brief, Arokiasamy et al. provide the clearest summary of the arguments around the relationship between the decline in India’s fertility rate and education. In brief, he agrees with Basu (2002) that there are complex routes to demographic transition, and concludes that ‘Education continues to be central to India’s fertility decline, even though [it] is now being driven by illiterate women.’ Key points that are made in the article include:

- Bhat (2002) showing that 65% of India’s fertility decline during the 1990’s was due to fall among illiterate women. The remainder is attributed to educated women and changes in distribution by educational level.
- The simple relationship of ‘more education equals reduced fertility’ exists, but there is a marked variation across states. For example, illiterate women in southern states have a lower fertility rate than educated women in northern states.
• It is too simplistic to imply that female education is no longer a key pre-requisite for fertility decline; rather that women’s own education and other socioeconomic predictors may no longer be accurate indicators of fertility behaviour
• The role of ‘educational diffusion’ may be a key mechanism by which uneducated women are influenced by the fertility behaviour of others. See Kravdal (2004) below.
• A changed direction of causality must be considered: Parents are motivated to limit the size of their families so that they can afford to send them to school. Caldwell (1982) plots state level total fertility rates against educational aspiration fro girls using 1998-1999 NFHS data to suggest that fertility is lower where a smaller proportion of women report low education aspirations. Parents’ educational aspirations for children are growing. Perceptions of the necessity for education are also changing too.

**Mortality, Fertility, and Gender Bias in India: A District-Level Analysis**
[www.jstor.org/pss/2137773](http://www.jstor.org/pss/2137773)

Murthi et al. find that variables related to women’s empowerment and agency have a strong and statistically significant negative impact on female disadvantage, whereas those relating to general economic development and modernization do nothing to improve the relative survival chances of boys vis-à-vis girls, which in fact operate in the ‘wrong’ direction. Similarly, they argue that while general indicators of development do have positive effects on absolute levels of child survival, these are dwarfed by the powerful effects of female literacy on child survival.

Murthi also reiterates that the only variables they find to have a significant effect on fertility are female literacy and female labour force participation. They conclude that ‘the direct promotion of child health, female literacy, and female labour force participation is likely to be more conducive to lowering fertility than are indirect interventions based on promoting economic development.

**Child Mortality in India: The Community-Level Effect of Education**
[Doi:10.1080/0032472042000213721](http://www.jstor.org/stable/10.1080/0032472042000213721)

This paper outlines the importance of considering not only individual-level determinants of child health (for example, years of schooling of parents), but the fact that the average level of education in a census area can have a strong positive impact on child mortality as well as the educational achievement levels of an individual mother. Evidence in the form of statistical analyses of the 1998-99 India National Family Health survey is considered.

**Fertility, Education, and Development: Evidence from India**

This is another key article which consolidates earlier evidence of the link between education and reduced fertility in India. A multivariate (rather than bivariate) approach helps to establish that the connection between the two is robust. In all the specifications explored, female education has a negative and highly significant effect on the fertility rate. Dreze argues that the robustness of the coefficient suggests that it is driven by a direct link between female education and fertility, rather than by a joint influence of unobservable variables on both. Dreze also finds that the effect of female education on fertility appears to be large: an increase in literacy rate from 22 percent in 1981 to 65 percent would reduce the total fertility rate by one child per woman. Dreze concludes that the strong effects of female literacy, child mortality and son preference on fertility levels contrasts with the latter and tenuous indicators
of overall development such as male literacy, urbanization, and poverty - none of which exert a statistically significant influence on fertility.

**Returning a Favor: Reciprocity Between Female Education and Fertility in India**
doi:10.1016/S0305-750X(02)00065-7

The article uses data to show that the recent reduction in fertility level does not stem from more women becoming literate over time, but rather from changes in behaviour of illiterate women. Bhat shows that while the initial stages of reduced fertility in India has been driven by the education of females, as the demographic transition progresses the effect tends to weaken, and it is in fact the fertility level that exerts significant negative influence on educational attainment of children, especially girls.

Using specific micro level data from another national survey, Bhat also finds that illiterate parents, when regulating fertility, send more of their children to school. The first born daughter benefits most from this changing pattern, as she is released from the burden of attending to younger siblings.

**The Influence of Female Education, Labor Force Participation, and Age at Marriage on Fertility Behavior in Bangladesh**
by Chaudhury, R. in *Social Biology* Spring-Summer;31(1-2):59-74, 1984
www.ncbi.nlm.nih.gov/pubmed/6544003

Using contraceptive use as an indicator of fertility behaviour, this dated study found that the number of children ever born declined from 4.15 among women with no education to 1.96 among those with at least a secondary school education in Bangladesh.

### 4. Economic Returns to Women’s Education in India

**Investments in the Schooling and Health of Women and Men: Quantities and Returns**
www.jstor.org/stable/146291

Schultz provides the economic justification for investing in the schooling and health of women. He reviews the private and social returns to schooling and health in order to explain the greater increase in their participation relative to men in the past century. He finds that sample selection bias caused by analyses of only wage earners does not appear to lower women’s private returns to schooling relative to men’s. He concludes that social returns to education favour greater public investment in women, particularly in South and West Asia and Africa, where school investments in women are much less than in men.

**Human Capital, Fertility, and Economic Growth**
www.jstor.org/stable/2937630

Classical human capital economist Becker finds that when human capital is abundant, rates of return on human capital investments are high relative to rates of return on children, whereas when human capital is scarce, rates of return to human capital are low relative to those on children. As a result societies with limited human capital choose large families and invest little in each member; those with abundant human capital do the opposite.
Changes in Returns to Education in India, 1983-94: by Gender, Age-cohort and Location
doi:10.1016/S0272-7757(01)00047-4

Duraisamy provides estimates of the returns to education in wage employment by gender, age cohort and location (rural/urban) for 1993/4, and also evaluates the changes in returns over the period of time from 1983-1994 using data from the national level household survey.

There is evidence of significant gender and rural/urban differences in returns to schooling. Investment in women’s education, in particular at the middle, secondary and higher secondary levels is more profitable than that for men in 1983 and 1993/4. The returns to women’s primary and middle levels of education have declined while those to secondary and college levels have increased during the decade 1983-1984.

Returns to Education: New Evidence for India, 1983-1999
www.informaworld.com/10.1080/09645290600854128

This paper estimates the return to education for adult male workers in India using National Survey Data. It finds that returns to education are significantly different for the two types of workers: casual and regular. For the former, the returns are flat, whereas for the latter, the returns are significant.

Does the Labour Market Explain Lower Female Schooling in India?
http://eprints.lse.ac.uk/6715/

Labour market discrimination against women is a commonly cited explanation of the gender gap in education in developing countries. This study empirically tests the labour market explanation for India using recent household survey data. The results reveal substantial omitted family background bias in the estimates of rates of return to education. The findings suggest that, as well as overall labour market discrimination, girls face poorer economic incentives to invest in schooling than boys because they reap lower labour market returns to education than boys.

5. Other Key Books

These are the most widely referenced full length books regarding the subject.

Girl's Schooling, Women's Autonomy and Fertility Change in South Asia

Critical Perspectives on Schooling and Fertility in the Developing World
Bledsoe, C. et al. (eds.), Committee on Population, National Research Council, 1999

6. Education and Reproductive Health Initiatives

Adolescent Reproductive Health in India: Status, Policies, Programs and Issues

This report contains a comprehensive list of Adolescent Reproductive Health initiatives in India, many in schools.
Young Peoples Sexual and Reproductive Health in India: Policies, Programmes and realities

This report provides another comprehensive list of reproductive health programmes delivered by state and NGO providers.

We’ve Got a Right to Know: Good practices in Education and Communication
UNFPA/EC, 2006
A useful and comprehensive report detailing good practice in education and communication for reproductive health across Asia.

Reproductive Health Initiative for Youth in Asia
www.unfpa.org/eu_partnership/rhiya/
This is the multi-country web portal for the RHIYA program, which is linked with the Right to Know Initiative.

The Right to Know Initiative, UNAIDS/UNICEF
www.comminit.com/en/node/122995/347

The Right to Know (RTK) Initiative was a global youth communication and outreach initiative designed to address the need for information, knowledge, and understanding of HIV/AIDS and related issues among young people in India and globally. Right to Know worked closely with young people in an effort to transform information on HIV/AIDS and health into knowledge. The initiative was based on the belief that young people need to know about the facts on HIV/AIDS and the ways to protect themselves and their peers. UNICEF, along with UNFPA, WHO, UNESCO, and the World Bank, has identified sets of basic facts (incorporated into a guidebook known as the Facts) that constitute the minimum that every adolescent has a right to know. Right to Know developed research-based national communication packages to convey these facts and work to assist youth in making informed decisions to prevent HIV infection and lead healthy lives.

7. Adolescent Reproductive Health Programmes

From:
Adolescent Reproductive Health in India: Status, Policies, Programs, and Issues

Governmental and non-governmental organisations (NGOs) have initiated various programmes as a part of the strategy to implement policies. These programme initiatives have also received support from regional and international organisations and agencies. Most of the NGO programmes are supported by funding as well as by technical assistance. These support organisations include governments, NGOs, and international organisations in addition to government ministries and departments. Among the major international and bilateral organisations are: UNFPA, UNICEF, UNESCO, WHO, World Bank, and DANIDA. However, the work of NGOs is still on a small scale, covering a small proportion of the adolescent population and confined to certain pockets of the country. While most of the NGOs demonstrate innovative and creative approaches, some are really in a nascent phase. The range of programmes varies because of organisations’ varying experiences and capacities to undertake adolescent-related issues. There is a need to scale up these efforts in order to have a larger impact.
**RCH Services Programme:** The RCH Programme was launched nationwide in 1996 to provide holistic reproductive and child health care through the existing, vast network of the primary health care system. The RCH Programme encompasses provisions for all aspects of safe motherhood and child survival interventions, including a focus on increased access to contraceptives, safe management of unwanted pregnancies, enhanced nutrition, prevention and management of RTIs and STIs, availability of reproductive health services to adolescents, and educational outreach. The RCH Programme also focuses on providing services for gynaecological problem management and cancer screening for women. The programme has been in operation since 1996 and is being monitored through periodic nationwide, district-based Rapid Household Surveys.

**Integrated Child Development Services (ICDS) Scheme:** The ICDS scheme offers an integrated package of early childhood care services. These services include supplementary feeding, immunisation, health checkups, referral services for children up to six years of age and for expectant and nursing mothers, and nutrition and health education for mothers. The ICDS Scheme covers almost 85 percent of the blocks in the country. There is an increasing focus on girl children under the scheme.

**Adolescent Girl Scheme:** This special intervention for girls ages 11–18 started in 1991–92 to meet their special nutrition, education, and skill development needs. This scheme has been extended to 3.9 million adolescent girls in 507 blocks throughout the country, which were selected through the ICDS scheme. The scheme also envisages imparting skills and encouraging the involvement of girls in useful economic activities later in life. The scheme has two subsets of target groups: the Girl-to-Girl Approach for adolescent girls ages 11–15 and Balika Mandal, which focuses on reaching adolescent girls ages 11–18. Under the scheme, an additional 1,493 blocks will be added to expand programme coverage.

**State Plans of Action for the Girl Child:** State governments are to formulate State Plans of Action for the Girl Child appropriate to the conditions prevailing in their respective states. Thus far, the governments of Karnataka, Madhya Pradesh, Tamil Nadu, and Goa have formulated state plans of action.

**District Primary Education Programme:** This Department of Education programme provides a special thrust to achieve universal coverage of primary education through decentralised planning and management, decentralised target setting, community mobilisation, and district- and population-specific planning. Specific strategies have been designed to enhance girls’ access, enrolment, and retention in the school system. At present, 219 districts in 15 states are covered under the programme. As a result, there has been a spurt in enrolment and an increase in learning achievements among girls. Increased community involvement, improvement in classroom processes, and a concerted equity focus have emerged as key success markers of the programme.

**Baika Samriddhi Yojana, 1997:** This scheme works to raise the status of girl children born in families below the poverty line by providing financial help to these families. Some specific criteria have been laid down to provide financial assistance to the mother of a newborn girl child in the form of grants and investments through a postal financial instrument to be applied toward the education and economic independence of that child. The scheme also provides a scholarship provision for the girl’s school education. The deposit will mature and be paid to the girl if she remains unmarried until she reaches 18 years of age. More than two million girls have benefited from the scheme so far.

**National Plan of Action for the SAARC Decade of the Girl Child (1991–2000):** The heads of the government of the SAARC region declared 1991–2000 as the “SAARC Decade for Girl Child” and developed this plan of action. In fulfilment of this commitment, the government of India identified “Survival, Protection, and Development” as a major theme, focusing on gender-specific needs and requirements to the fullest possible extent. This was a conscious
effort to ensure equitable rights, opportunities, benefits, and status to girl children. Several other initiatives that have been taken to promote the development of children and adolescents include the following:

- The Department of Education has been running a programme of non-formal education since 1979 to reach marginalised children in the 6–14 year-old age group. The plan is being implemented in 25 states/urban territories (UTs), particularly for those who have dropped out of school, working children, children in environments without schools, and girls who cannot attend formal schools on account of domestic chores.

- The National Service Scheme (NSS) was launched in 1969 with a primary focus on students’ personality development and community service. NSS involved more than 1.6 million student volunteers from more than 175 universities and 22 senior secondary councils. The scheme’s programmes include “regular activities” and “special campaign programs.”

- Bharat Scouts and Guides, the third largest youth organisation in the world, has enrolled 2.3 million guides and scouts. Scouting and guiding movements aim to develop boys’ and girls’ characters with the goal of making them good citizens of India. It inculcates in them a spirit of patriotism and promotes balanced physical and mental development.

- The Ministry of Labour is running 76 national child labour projects in the country, covering 150,000 out-of-work children in 10 States/UTs with high unemployment levels. To ensure the welfare of these children, special schools have been set up to provide basic services such as non-formal education, vocational training, supplementary nutrition, and health care.

- The Ministry of Social Justice and Empowerment has been implementing the “Integrated Program for Street Children” since 1992–93. One of the important initiatives under the program’s revision in 1998 was the establishment of the Child Help Line Services in a number of cities. The Child Help Line provides emergency assistance to children. Continued involvement in the programme is based on the need of the child, who is referred to an appropriate organisation for long-term follow-up and care. NGOs have addressed a range of issues related to the health and development of adolescents. These include reproductive and sexual health, general health, education, employment/skill development, gender equality, personality development, groups with special needs, and alcohol and drug abuse. Most of the NGOs work on sexuality is based on two distinct models: programs focusing on providing information on sexual issues to unmarried adolescents, and programmes providing information and services.

**Population Council:** The Population Council has supported initiatives on adolescent transition in different states in collaboration with several NGOs, namely RUWSEC in Tamil Nadu, SUTRA in Himachal Pradesh, ADITHI in Bihar, CINI in West Bengal, and CHETNA in Gujarat and Rajasthan. The Population Council supported programmes on adolescence run by Mahila Samakhya in Karnataka and Andhra Pradesh and in the state of Haryana, Apni Beti Aapna Dhan.

**MAMTA:** The Health Institute for Mother and Child in New Delhi has made significant efforts to promote the cause of adolescent health.

**Society for Social Uplift through Rural Action (SUTRA):** Sutra is based in the hilly region of Jagjit Nagar, Himachal Pradesh and regularly undertakes training programmes, seminars/workshops, and courses for capacity building among various groups. These groups include mahila mandals (women’s groups), panchayats (local governing councils), and yuvati sangathans (adolescent girls’ groups). The organisation operates in five districts (Solan, Sirmaur, Mandi, Hamirpur, and Kullu) and 10 development blocks of Himachal Pradesh. The staff works closely with 400 mahila mandals, 131 yuvati sangathans, and 100 gram
panchayats directly through training and convening meetings or through sister organisations. The activities are geared toward wide understanding of reproductive health. The encompassing issues are body care, menstruation, RTIs, abortion, family planning, sexual relations, violence, liquor, and adolescent health.

**ADITHI:** This non-governmental development organisation, established in Bihar in 1988, has been working on adolescent issues since 1995, focusing specifically on adolescent girls ages 11–18. ADITHI started Balika Kishori Chetna Kendras (awareness centres for young unmarried girls) with support from UNICEF. The aim of the kendras is to build a community where women and men have equal status and importance. There are more than 18 kendras in 18 villages, with a total of 465 participants, of which 351 participated regularly. These kendras are now run with support from Action Aid. There are about 20–25 girls in each centre. Unlike the non-formal education centres, which are targeted at girls who have either never attended or dropped out of school, these centres are open to all, including girls attending schools or non-formal education centres.

**Prerana:** Prerana initiated adolescent programmes in 1987 and in 1990, Prerana further enhanced its initiatives by launching the Better Life Demonstration Project for Girls and Young Women and a parallel programme of Better Life Development Program for Boys and Young Men. The objective of each programme is to create an environment of dignity and opportunity for adolescents, enabling them to achieve their full potential in terms of personal growth and ability to contribute to family, community, and societal development. The programmes were implemented as a development project in six villages along the periphery of Delhi. The programme targeted individuals and their peer groups, families, and communities. Learning modules included information, education, and services in the areas of personality development, education, health, reproductive health, economic participation, and life skills training. Over 5,000 adolescent girls and 1,800 adolescent boys have been reached through direct field programmes.

**CHETNA:** This Ahemedabad-based organisation has been working on adolescent health issues in the state of Rajasthan and Gujarat. It works directly and indirectly with adolescent girls in an effort to build local capacity to address their needs. The organisation conducts health camps in collaboration with local organisations and provides health services to adolescent girls. It also trains local organisations in the two states to raise awareness and address the needs of adolescent girls in their project area. Advocacy is also a key aspect of their programme.

**India INCLEN:** India INCLEN, in Lucknow, developed an instrument for reproductive health counselling in the hopes of educating sexually active adolescent boys about STIs and reducing their risk behaviour.

**Healthy Adolescent Project in India (HAPI) Project:** This project is based in West Bengal and works with guides and scouts in both the main city of Calcutta and other, less urban areas in the state. The project was initiated in 1999 with support from the David and Lucile Packard Foundation.

**Adolescent Girls’ Health Project – Jabalpur:** This ongoing, six-year programme was initiated with support from CARE and is designed to address the reproductive health needs of nearly 32,000 adolescent girls, both married and unmarried, living in the slums of Japalpur in Madhya Pradesh. CARE trains medical staff, community health workers, and traditional birth attendants in adolescent health issues, reproductive health care, and birth spacing. Health care workers train adolescent girls to educate their peers through school and community group meetings. The focus is on establishing a network of Adolescent Girls’ Health Guides. In addition, the project targets adolescent boys, husbands of adolescent girls, parents, teachers, and community leaders.
Pathfinder/India: Pathfinder’s adolescent health programme will work in partnership with Indian NGOs, initially focusing on the provision of reproductive health information, education, counselling, and services for adolescents.

International Centre for Research on Women (ICRW): ICRW is coordinating a multi-site intervention and research program to develop effective programmes for adolescent sexual and reproductive health and development in India. The research has provided urban and rural community-based data on adolescents’ lives, particularly their reproductive health needs. The studies confirmed that a lack of power, decision-making opportunity, autonomy, and access to resources underlie the reproductive health risks faced by adolescents, particularly adolescent females, and those who are unmarried. The project is being implemented in two phases. Phase I (1996–1999) addressed the paucity of basic research on adolescents in India and provided urban and rural community-based data on adolescents’ lives, particularly their reproductive needs. In Phase II (1999–2005), ICRW is collaborating with five organisations in India to test multiple intervention approaches addressing the adolescents’ needs identified in Phase I. Centre for Development and Population Activities (CEDPA): CEDPA, an international NGO with operations in Delhi, in collaboration with local NGOs, UNFPA, UNESCO and USAID, has adapted “Choose a Future: Issues and Options for Adolescent Boys” to the Indian cultural context and is currently implementing programmes in 11 states. The package has been designed to effectively challenge gender inequalities and address male involvement. It helps to foster true partnerships in relationships, responsible fatherhood, and alternatives to violence.

Planned Parenthood Federation: Planned Parenthood has promoted four major projects with the help of local NGOs:

- **Improving the Reproductive Health of Young Women and Men**: The goal of the project is to improve the lives of adolescents and youth by providing contraceptive services and sexuality education in 20 rural villages in a district in West Bengal with a local NGO.

- **Couple to Couple: Improving the Reproductive Health of Young Couples in Rural India**: The project employs peer couples to work with groups of newlyweds and other young couples to motivate them to increase gender awareness, encourage supportive relationships, and plan for their new families together. The aim of this project is to create an enabling environment for young couples to overcome social, cultural, and gender barriers to plan and space their children’s births and achieve positive reproductive and child health.

- **Improving the Reproductive Health of Adolescents and Youth**: Located in Jharkhand state, the project aims to increase young people’s knowledge and understanding about sexuality and reproductive health and help them develop communication and decision-making skills so that they may lead healthy reproductive lives.

- **Reproductive Health through Advocacy and Services**: The project is a part of a larger program to improve the reproductive health and rights of adolescents and youth in the Indian states of Bihar and West Bengal. The programme aims to improve the general reproductive health of adolescents and young people and develop the capacity of NGOs, private providers, and government facilities to plan, sustain, and advocate for adolescent and youth reproductive health programmes.
8. Additional information

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**Key search terms**
Education, secondary, fertility, India, Bangladesh, Asia, demographic, change, reduction, collaborative, effective, indicators, reproductive, maternal, evidence, mother, daughter, Kerala, National Household Survey, benefits, improved, returns, initiative, health, childbirth

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