United Nations
Department of Economic and Social Affairs

# Population Division

# Expert Paper
# No. 2013/2

Population Division

Expert Paper
No. 2013/2

# Women's Empowerment and Fertility: Policy Lessons

*Monica Das Gupta*
University of Maryland, United States of America

United Nations New York, 2013

NOTE

The views expressed in the paper do not imply the expression of any opinion on the part of the United Nations Secretariat.

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

# PREFACE

The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat organized an Expert Group Meeting on "Fertility, Changing Population Trends and Development: Challenges and Opportunities for the Future" at the United Nations Headquarters in New York on 21 and 22 October 2013. The meeting was convened to inform substantive preparations for the forty-seventh session of the Commission on Population and Development in April 2014. In light of the twentieth anniversary of the 1994 International Conference on Population and Development (ICPD), the Commission's theme for 2014 is an "Assessment of the status of implementation of the Programme of Action of the International Conference on Population and Development".

The meeting brought together experts from different regions of the world to address key questions about the future pace of fertility change, implications for age structure changes and other population trends and effective policy responses. A selection of the papers prepared by experts participating in the meeting is being issued under the Expert Paper Series published on the website of the Population Division (www.unpopulation.org).

This paper describes the relationship between women's empowerment and fertility, drawing on research evidence and policy examples that have relevance for high-fertility settings. Natural experiments using policy-induced variation in access to contraceptives show that expanding access to contraception is of greatest benefit to poor, uneducated women, helping them avoid unplanned births. Greater control over childbearing also helps young women delay their first birth, increasing their schooling and job prospects. Moreover, planned children and children with fewer siblings have higher levels of human capital, improving their life-chances and helping break the intergenerational cycle of poverty. The paper discusses ways that low empowerment undermines women's ability to shape their family size and the timing of childbearing via low decision-making power in the household, limitations on mobility outside the household and

## A. INTRODUCTION

Women's empowerment is a complex multi-faceted issue, deeply intertwined with societal norms and intra-household dynamics. Policies and programmes to empower women and increase gender equality encompass a wide range of interventions designed to help women be independent actors in the economy, polity, and society. For example, legal changes can empower women by enabling them to inherit and own property, access credit, and reduce barriers to their participation in the labour force. Other legal changes can enable them to vote and increase their representation in political positions. Other policies seek to increase overall levels of education for both men and women, while ensuring that women are not left behind. Such efforts to empower women can require substantial resources and implementation capacity. While these multi-pronged efforts have implications for fertility outcomes, they are beyond the scope of this short paper.

More direct efforts to influence fertility behaviour address gender equality in more specific ways. In low-fertility settings, many countries have policies that seek to raise fertility by offering various incentives, some of which make for greater gender equality. This includes policies that offer childcare, maternal leave, and other incentives that reduce the likelihood that childbearing will cost women in terms of career prospects and lower lifetime earnings.

In high fertility settings, many countries in the developing world have had policies that seek to lower fertility. The key policy tool is family planning programmes, which in their basic form increase access to contraception and encourage the use of contraception. This focus on supply and demand issues is not necessarily explicitly intended to empower women. However, the very fact of having access to contraception and being able to make informed choices about it is an enormous step forward in increasing women's control over their lives. It also enables them to obtain more schooling and earning capacity.

This paper focuses on high fertility settings. Section B discusses the evidence on how greater control over childbearing helps women gain control over their lives, and empowers them along several dimensions. "Natural experiments" using policy-induced variation in access to contraceptives in both developed and developing countries find that expanding access to contraception is highly pro-poor. It is of greatest benefit to poor, uneducated women, helping them avoid unplanned births. It helps young women delay their first birth, increasing their schooling and job prospects. Moreover, planned children and those with fewer siblings have higher levels of human capital, improving their life-chances and helping break the intergenerational cycle of poverty. Section C discusses some of the ways in which low empowerment can undermine women's ability to shape their family size and the timing of childbearing—that is, low decision-making power in the household; limitations on mobility outside the household; and exposure to early childbearing—and the ways in which family planning programmes can respond to reduce these constraints facing women. Section D concludes.

## B. HOW DOES GREATER CONTROL OVER FERTILITY ENHANCE WOMEN'S EMPOWERMENT AND GENDER EQUALITY?

Studies show that greater control over the timing of childbearing and number of births empowers women in many ways, including economically. Moreover, these gains manifest themselves quickly, unlike the broader efforts to empower women through legal and other changes.

1. *Greater control over fertility increases female labour-force participation and earnings*

Childbearing can take a toll on women's labour-force participation, productivity, and lifetime earnings, reducing their financial independence. Studies in the developing world indicate that childbearing reduces women's participation in the labour force (Adair et al., 2002). In the developed world, studies find that this is especially the case amongst women who are less educated and those who begin childbearing early. A bivariate analysis of data from the United Kingdom found that a woman with no qualifications and two children has half the total lifetime earnings of her childless counterpart, and a mother of four has less than a fifth of the total earnings of a childless woman (Matheson and Summerfield, 2001). A rigourous analysis of data from the United States found that the negative effect of family size on women's labour-force participation is strongest amongst poorer and less educated women (Angrist and Evans, 1998).

Especially important for women's labour force outcomes is delaying age at entry into motherhood, which helps increase schooling and future earnings. Female education has been associated with lower fertility by raising the age at first birth in settings as varied as Guatemala, Indonesia and Nigeria (Behrman et al., 2006; Breierova and Duflo, 2004; Osili and Long, 2008). Lower fertility has also been found to be associated with higher earnings and employment.

Giving young women access to family planning has the greatest impact on women's schooling and lifetime earnings. Miller (2010) evaluated Colombia's family planning programme, exploiting differences in timing of the introduction of the family planning programme to estimate the impact of contraceptive availability on fertility. He found that young women who were given access to family planning obtained more schooling and were more likely to work in the formal sector. Women who start childbearing early, especially during adolescence, pay the highest wage penalty for childbearing. This was found in studies in four Latin American countries (Buvinic, 1998) and in the United States (Taniguchi, 1999).

Turning to the developed world, analyses of natural experiments in Sweden and the United States found significant female labour supply responses to differences in the provision of the birth control pill—access to the pill allowed women to delay marriage and invest in careers. Bailey (2006) found that in the United States, access to the pill before the age of 21 reduced the likelihood of being a mother before age 22 by 14 to 18 per cent, and increased later employment between the ages of 26 and 30 by 8 per cent. Analyzing data from Sweden, Ragan (2012a, 2012b) found that access to the pill was associated with a sharp decline in teenage motherhood in Sweden, and increased women's labour supply and earnings.

A study in the United States found that this holds even among women who are college graduates, having overcome all the hurdles of getting to that point (Goldin and Katz, 2002). The authors exploited cross-state and cross-cohort variation in pill availability to young, unmarried women college graduates, and found that their use of the pill raised their age at first marriage and increased their probability of undertaking long-duration professional training that qualified them for higher-paying jobs.

2. *Access to contraception especially empowers the most disadvantaged women*

Poor and otherwise disadvantaged women benefit the most from lowering the physical and

have higher schooling attainment. They conclude that this is because parents are more likely to invest in planned children.

Similar findings emerge from the developed world. Madestam and Simeonova (2013) looked at the effect of municipal-level variation in subsidized access to the pill in Sweden for the period 1989-1998. They found that improved access to the pill reduced the abortion rate and had substantial positive effects on the next generation's educational and socio-economic success. Using data from the American Community Surveys from 2005 to 2010, Rotz (2013) analyzed the impact of legalizing abortion in New York, the first state in the United States to do so. She found that after abortion was legalized, children were born into families with greater resources. This increased the eventual wages of black, Hispanic, and lower-wage workers, the children of the women who had been given greater control over the timing of their births.

Family size also affects investment in children. Micro-studies in India and China found that lower fertility is associated with better child health and schooling (Rosenzweig and Wolpin, 1980; Rosenzweig and Zhang, 2009). Joshi and Schultz (2013) found that lower fertility in Matlab, Bangladesh, was associated with improved child health. Miller (2010) found that in Colombia, households with lower fertility also showed improvements in schooling, health, and earnings. He concluded that family planning may be 'among the most effective (and cost-effective) interventions to foster human capital accumulation'.

Gender adds a further twist to this story of "resource dilution", since there is a preference for sons in several developing country settings. Filmer et al. (2009) found that parents are more likely to stop bearing children if they have a son, which means that girls tend to have more siblings. They found that this effect is strongest in South Asia, followed by Central Asia and the Middle East and North Africa. Their datasets did not include China, but this pattern is strong there (Choe and others, 1992). The findings from other studies of resource dilution suggest that less is invested in girls because they have more siblings on average, regardless of whether parents favour boys in the allocation of investments in children.

### C. How does women's empowerment constrain their control over childbearing, and how can family planning programmes mitigate these constraints?

In many societies, women's primary roles are perceived to be those of a wife and mother, and there are few paths for women to become independent actors0 Tc( 7.6(m)7.9(e4.j-17.TJ2s-l). Tan[ale likel-3.7(and )7.9-7.6(

relatives of the husband also shape key decisions—acting as gate-keepers—whether or not the couple lives with them (Das Gupta, 1995; Bloom et al., 2001).

In settings where contraceptive use is not yet commonplace, this can constitute a major barrier to its use. Studies indicate that in such settings, women are more motivated than other decision-makers in their household and community to control childbearing. A study in Zambia found that women who were given contraceptive information and access without their husbands present were more likely to use contraception and less likely to give birth than a control group of women accompanied by their husbands (Ashraf et al., 2012).

High levels of covert use amongst women using contraceptives were found in studies conducted in urban Zambia and Bolivia in 1996-1997 (Biddlecom and Fapohunda, 1998; McCarraher et al., 2005). However, this is not always easy: in Bolivia, women who used the pill covertly were 21 times more likely to have experienced method-related partner violence than women whose partners knew of their pill use (McCarraher et al., 2005). Interestingly, the study in urban Zambia found that women's covert use was attributable not to husband's pronatalism but to difficulties in spousal communication about contraception (Biddlecom and Fapohunda, 1998). It also noted that covert use was more widespread when contraceptive prevalence was low.

Analyzing data from a 1993 survey in the Philippines, Biddlecom et al. (1997) found that spousal agreement over approval of contraception was associated with higher levels of contraceptive use and intention to use them in the future. Spousal communication can be enhanced through simple measures. In Malawi, a peer-delivered educational intervention in 2008 significantly increased contraceptive use through increased ease and frequency of communication within couples (Shattuck et al., 2011).

The presence of in-laws can also shape a woman's use of contraception. A study in urban slums in Pakistan found that mothers-in-law influenced contraceptive decision-making (Fikree et al., 2001). In Mali, ever-use of contraceptives was strongly negatively associated with the presence of the husband's kin in a woman's network, while the reverse was the case when the mother and natal kin were in her network (Madhavan et al., 2003). Ever-use was also strongly positively associated with an increased proportion of network members located outside the village, indicating an effect of exposure to new ideas.

contraceptive use in Tanzania (Rogers et al., 1999) and reducing fertility in Brazil and India (La Ferrara et al., 2012; Jensen and Oster, 2009).

To motivate their evaluation of the impact of Brazilian soap operas on fertility, La Ferrara et al. (2012) report the results of an experimental focus group discussion in which adult women of middle and lower class backgrounds were asked to portray the families that are more frequently displayed on television, and those of common people. "The results were clear: television families are small, rich and happy; the families portrayed as common people are poor, contain more children and the faces reveal unhappiness….constant exposure to smaller, less burdened television families, may have created a preference for fewer children and greater sensitivity to the opportunity costs of raising children."

This is exactly the approach used in many countries, such as India and the Republic of Korea. Their family planning programmes surrounded people with messages on the benefits of small families. Billboards conveyed images of glowing parents with one or two flourishing children, sometimes juxtaposed with images of overwhelmed parents surrounded by many children living in much poorer conditions. Short jingles on the radio and television reinforced the message that "a small family is a happy family". Such media blitzes are especially important in settings where contraceptive use is not yet commonplace. By reaching entire communities, they help change social norms and reduce barriers to use. This also helps empower women to use contraception.

2. *Limitations on mobility outside the household*

In some settings, women's mobility is a constraint. When compounded by low literacy, this limits women's access to information (except through mass media that reaches their homes) and ability to interpret information. Pending social changes that reduce such restrictions, the difficulties women face in accessing reproductive health services can be reduced by doorstep delivery of services.

The Matlab programme in Bangladesh had community workers provide regular doorstep delivery of family planning and maternal and child health programme inputs to women in half the villages studied for the period 1974-1996, while the other half received regular government programme inputs. The first set of villages showed more rapid fertility decline after the programme began, and maintained lower fertility (Joshi and Schultz, 2013). This difference is especially striking given that fertility was falling rapidly across the country. Sinha (2005) found that 18 years after the programme began, the doorstep delivery intervention accounted for a 14 per cent decline in lifetime fertility (0.6 fewer births per woman) compared with women in the second set of villages. If sustained over time, this can considerably reduce the momentum of population growth, as illustrated differences of plus or minus 0.5 births per woman in the United Nations high and low projection variants compared with the medium projection variant (United Nations, 2013).

Restrictions on women's mobility are noted in studies in many parts of South Asia but seem to be especially acute in rural Pakistan (Dyson and Moore, 1983; Das Gupta, 1995; Schuler, Hashemi, and Riley 1997; Khan, 1998; Mumtaz and Salway, 2005; Sathar and Kazi, 1997). In a 2000-2001 survey in rural Pakistan, 62 per cent of women reported that they cannot go to a health facility alone even if it is less than an hour away, and this rises to 82 per cent of respondents if the facility is further away (World Bank, 2005). The majority of women reported the need for permission, typically from a male household member, to visit a health facility. In qualitative interviews, women reported that they had to be accompanied by the husband or mother-in-law.

To help overcome these constraints, the Pakistan government initiated the Lady Health Worker (LHW) programme to bring reproductive health services to people's doorsteps in rural and poor urban areas. LHWs are residents of the communities they work in, and work out of their home, which makes it

easy for them to reach their clients. They are married women with at least eight years of schooling. Their

education outreach involving men as well as women, as well as mass media messages that reach entire communities. These spread the word about the dangers of child marriage, the alternative opportunities for young girls, and the rights of girls (Amin, 2011).

Part of the problem may be a lack of perceived alternative opportunities for girls. Studies in Tanzania and Zimbabwe found that orphaned girls become married or otherwise sexually active earlier than other children, especially if they come from poorer households (Beegle and Krutikova, 2007; Gregson et al., 2005).

Child marriage or early entry into sexual activity by single girls can reduce school attainment. Several countries have sought to incentivize families to keep their girls in school and/or postpone their marriage, through programmes offering loans, scholarships, subsidies and conditional cash transfers. In some settings these are incentives to keep girls in school, as with the female stipend programmes in Bangladesh and Pakistan. Elsewhere additional incentives have been offered if the girl remains unmarried at age 18, as in some Indian states (Sekher, 2010).

Conditional cash transfers (CCTs) have been tried. The Zomba Cash Transfer Program is a randomized intervention in Malawi offering school fees and an average of $10 per month cash (conditional on satisfactory school attendance) to current schoolgirls and recent dropouts to stay in or return to school. Baird et al. (2010) evaluated the intervention after just one year after the programme began, and found that it led to significant declines in early marriage, teenage pregnancy, and self-reported sexual activity among programme beneficiaries. For programme beneficiaries who were out of school at baseline, the probability of getting married and becoming pregnant declined by more than 40 per cent and 30 per cent, respectively. In addition, the incidence of the onset of sexual activity was 38 per cent lower among all programme beneficiaries than the control group.

However, CCTs require quite high levels of institutional capacity to identify recipients and administer payments correctly. They are also expensive to sustain over time in poor countries, unlike middle-income countries such as Brazil or Mexico that have the financial and administrative capacity to run such programmes on a large scale. Moreover, while CCTs have been found to lead to large increases in school enrolment, particularly among those with low enrolment rates to begin with (World Bank, 2009), they appear to have little impact on learning, possibly due to selection issues (Filmer and Schady, 2009; Baez and Camacho, 2011). Expanding vocational training and employment opportunities for girls as well as their access to credit can also help empower women, and mitigate the economic pressures in favour of early marriage.

Programmes to boost female schooling and earning capacity have many benefits beyond empowering women to control their childbearing. However, as far as the latter objective is concerned, the simplest approach is to make contraceptive information and supplies easily accessible to young women so that they can avoid unwanted pregnancies. The increasingly pervasive ownership of mobile phones, tive o20.7eiregt itigatwrieiapf3ltto srieiapf3ltTphones,

## References


Adair, L., D. Guilkey, E. Bisgrove, and S. Gultiano (2002). Effect of childbearing on Filipino women's work hours and earnings. *Journal of Population Economics*, vol. 15, No. 4, pp. 625-645.

Ahmed, Saifuddin, Qingfeng Li, Li Liu, and Amy O. Tsui (2012). Maternal deaths averted by contraceptive use: an analysis of 172 countries. *The Lancet*, vol. 380, issue 9837, pp.111–125.

Amin, Sajeda (2011). Programs to Address Child Marriage: Framing the Problem, *Promoting Healthy, Safe, and Productive Transitions to Adulthood*. New York: Population Council Brief No. 14.

Angrist, Joshua D, and William N Evans (1998). Children's and their parents' labor supply: Evidence from exogenous variation in family size. *American Economic Review*, vol. 88, No. 3, pp. 450-477.

Ashraf, Nava, Erica Field and Jean Lee (2012). Household Bargaining and Excess Fertility: An Experimental Study in Zambia. http://www.people.hbs.edu/nashraf/papers/AshrafFieldLeeManuscript-12-16-12.pdf (accessed 23 September 2013).

Baez, Javier E. and Adriana Camacho (2011). Assessing the Long-Term Effects of Conditional Cash Transfers on Human Capital: Evidence from Colombia, Washington DC: The World Bank Policy Research Working Paper 5681.

Bailey, Martha J. (2006). More power to the Pill: the impact of contraceptive freedom on women's life cycle labor supply. *The Quarterly Journal of Economics*, vol. 121, No. 1, pp. 289-320.

Bailey, Martha J. (2012). Re-examining the impact of family planning programs on US fertility: evidence from the War on Poverty and the early years of Title X. *American Economic Journal: Applied Economics*, vol. 4, No. 2, pp.62-97.

Baird, Sarah, Ephraim Chirwa, Craig McIntosh, and Berk Ozler (2010). The short-term impacts of a schooling conditional cash transfer program on the sexual behavior of young women. *Health Economics*, vol. 19, Issue Supplement 1, pp. 55–68.

Beegle, K. and S. Krutikova (2007). Adult mortality and children's transition into marriage. World Bank Policy Research Working Paper 4139. Washington, D.C.

Behrman, Jere R., Alexis Murphy, Agnes Quisumbing, Usha Ramakrishnan, and Kathryn Yount (2006). What is the real impact of schooling on age of first union and age of first parenting? New evidence from Guatemala, Washington DC: The World Bank Policy Research Working Paper 4023.

Bendavid, E., P. Avila, and G. Miller (2011). United States aid policy and induced abortion in sub-Saharan Africa. *Bulletin of the World Health Organization*. Published online October 14, 2011. http://www.who.int/bulletin/11-091660.pdf.

Bhat, P.N. Mari (1996). Contours of fertility decline in India: A district level study based on the 1991Census, in K. Srinivasan (ed) *Population Policy and Reproductive Health*, New Delhi: Hindustan Publishing Corporation.

Biddlecom, Ann E., John B. Casterline and Aurora E. Perez (1997). Spouses' views of contraception in the Philippines. *International Family Planning Perspectives* vol. 23, pp. 108-115

Biddlecom, Ann E. and Bolaji M. Fapohunda (1998). Covert contraceptive use: Prevalence, motivations, and consequences. *Studies in Family Planning*, vol. 29, No. 4, pp. 360-72.

Bloom, S., D. Wypij, and M. Das Gupta (2001). Dimensions of women'n'n' W199u-2.9(-.9)4

Das Gupta, Monica (2013). Population, Poverty, and Climate Change, Washington DC: The World Bank Policy Research Working Paper.

Menken, J., L. Duffy, and R. Kuhn (2003). Childbearing and women's survival: new evidence from rural Bangladesh. *Population and Development Review*, vol. 29, pp. 405-426.

Miller, Grant (2010). Contraception as development? New evidence from family planning in Colombia.

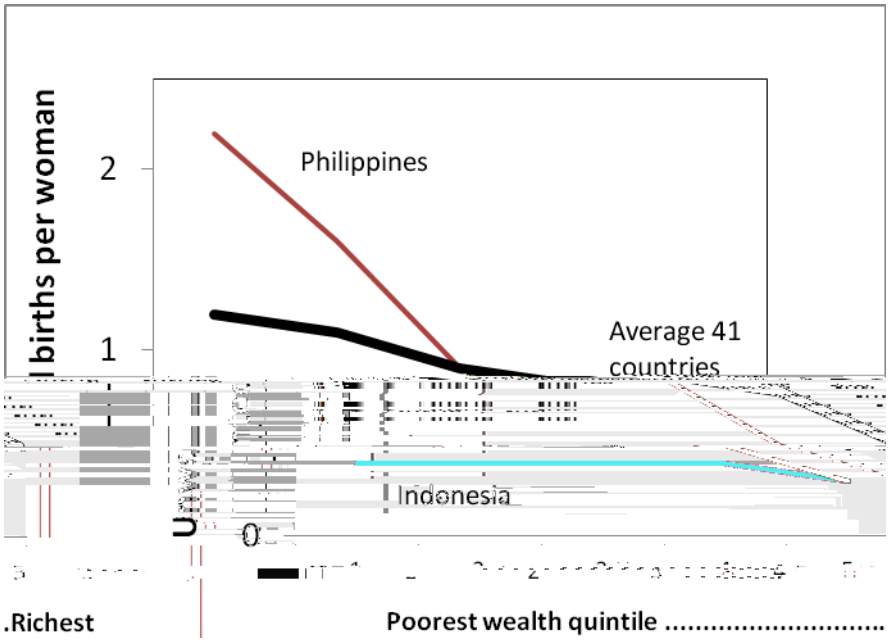
United Nations Population Fund (2012). *Marrying Too Young: End Child Marriage*, New York: United Nations Population Fund.

World Bank (2005). *Pakistan Country Gender Assessment: Bridging the Gender Gap: Opportunities and Challenges*. Washington, D.C.

World Bank (2009). *Conditional Cash Transfers: Reducing Present and Future Poverty*. Washington DC: The World Bank.

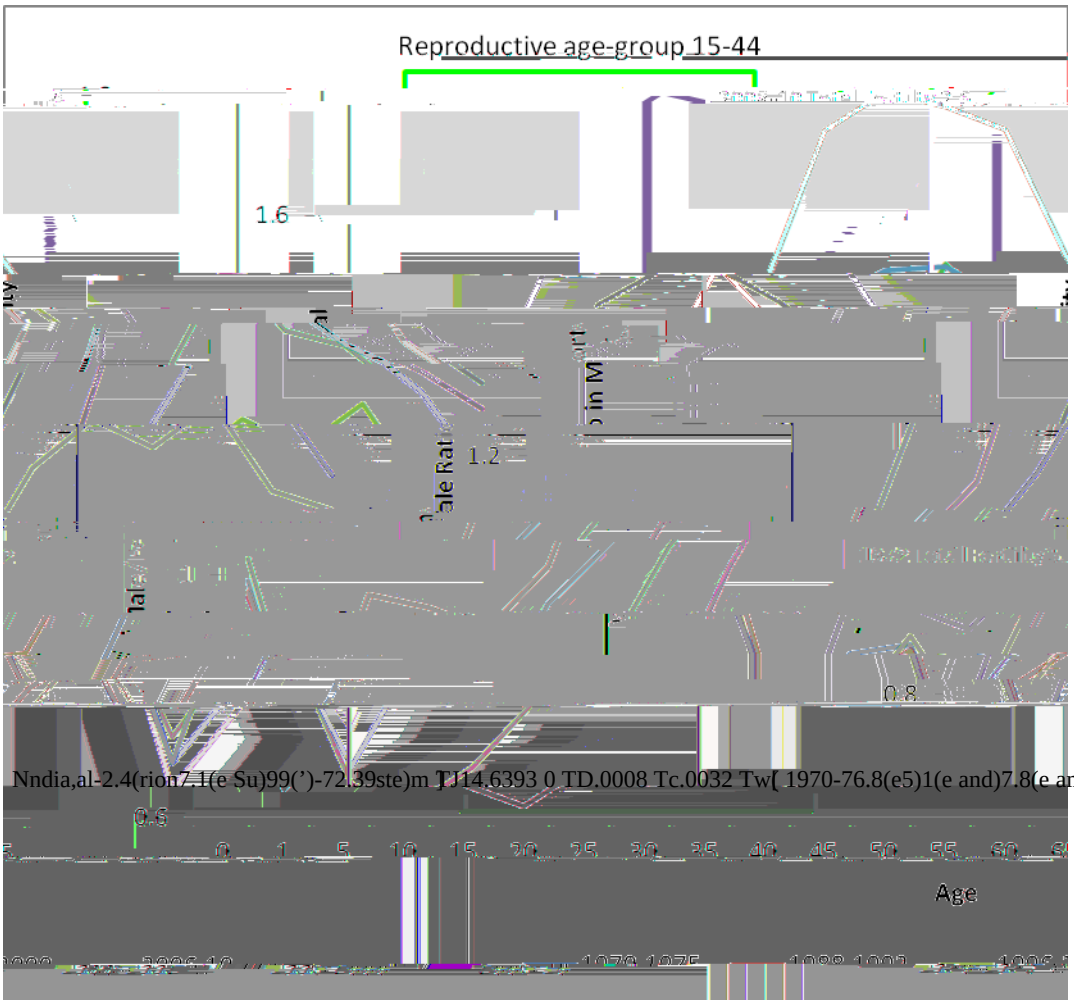
World Health Organization. 2011. *Causes of Death 2008 Summary Tables*. Geneva: The World Health Organization. Available at http://www.who.int/evidence/bod.

**Figure I. Unwanted fertility is higher among the poor, and effective family planning programmes can reduce this gap**




*Source*: Gillespie et al. (2007): Table 1

**Figure II. Fertility decline helps improve women's health**
**Women's mortality fell faster than men's especially during the reproductive years, India, 1972-2008**




Nndia,al-2.4(rion7.1(e Su)99(')-72.39ste)m T114.6393 0 TD.0008 Tc.0032 Tw[ 1970-76.8(e5)1(e and)7.8(e ample Registr)aion Su)996()-6

*Sources:* Mortality estimates from Government of India, Sample Registration Bulletin 16(1), June 1982, and Sample Registration Survey-Based Abridged Life Tables 1988-92, and 1996-2000, New Delhi: Registrar-General of India.

Fertility .0032rb ima