DFID
human development
resource centre

UKaid
from the Department for
International Development

Helpdesk Report: Family Planning Services

Date: 8th June 2012

Query:

- What is the evidence of the increase in the use of family planning services having an impact on health outcomes such as reduction in unwanted pregnancies, unsafe abortions and reduced fertility?
- What is the evidence of family planning services delivered through the public sector having an impact on uptake of family planning i.e. increased contraceptive use for women of reproductive age?
- What is the evidence of family planning services delivered through the public sector having an impact on equity i.e. increasing the contraceptive use amongst the poorest?

Content

1. Overview

There appears to be a trend of increasing uptake of family planning programmes and increasing equity of uptake. It is difficult to establish cause and effect with the impact of public sector family planning programmes. However, **sections 2 and 3** look at the evidence on this issue. This includes general overview papers as well as several case studies. A study on Central America shows this trend alongside improvements in national family planning programmes and a study on Ethiopia and Pakistan gives an analysis of the different types of service. There are variations by region and country, and between the types of methods offered (long-term vs. short-term).

Family planning services have a positive impact on health outcomes such as reduction in unwanted pregnancies, unsafe abortions and reduced fertility. The evidence for this is presented in **sections 4-6**. Contraceptive services can reduce abortion rates. The rate of safe abortions has dropped significantly however the unsafe abortion rate has declined hardly at all, so this is an important distinction to make. There is very strong evidence that family planning reduces fertility levels and unwanted pregnancies.

It is important to distinguish between service delivery points and financing. Public sector financing can be directed to a variety of service delivery sources. This is especially the case where donors fund NGOs or social marketing programs that are counted as 'private' sources

on DHS surveys. Also, in many countries, governments provide contraceptive supplies for free to all service providers in the country, including private sector providers. Therefore, analysing performance of public sector programmes can be more challenging than simply looking at source of service, since public financing supports private service provision in many ways.

2. Public Sector and Equity of Uptake?

Comparing private sector family planning services to government and NGO services in Ethiopia and Pakistan: how do social franchises compare across quality, equity and cost?
Nirali M Shah, Wenjuan Wang and David M Bishai, Health Policy and Planning 2011;26:i63–i71
http://heapol.oxfordjournals.org/content/26/suppl_1/i63.full.pdf+html

Policy makers have traditionally invested more heavily in public options, but recently there has been a growing recognition that well-placed investments in private provider networks can have practical advantages. The private sector is already in place and widely used by both rich and poor. If there are strategies that can efficiently improve the performance of the private sector in guarding service quality and improving access for disadvantaged groups, then these approaches may offer a practical alternative to focusing solely on improving public sector facilities.

Franchised private clinics have higher quality than non-franchised private clinics in both countries. In Pakistan, the costs per client and the proportion of poorest clients showed no differences between franchised and non-franchised private clinics, whereas in Ethiopia, franchised clinics had higher costs and fewer clients from the poorest quintile. Our results highlight that there are trade-offs between access, cost and quality of care that must be balanced as competing priorities. The relative programme performance of various service arrangements on each metric will be context specific. They found that government provision of FP services in both countries offers a balance of good quality and accessibility by the poor.

Ethiopia and Pakistan

Franchised private clinics costs per client were statistically significantly higher than for other facility types whereas franchised private clinics' cost was not significantly different than private or government facilities in Pakistan.

For Ethiopian clinics access for the poor was higher for government and private clinics compared with franchised facilities. Comparing total quality of care in Ethiopia and Pakistan showed that private franchised clinics had statistically significantly higher quality of care than private independent clinics.

In Pakistan, the highest quality for family planning provision is obtained by government and franchise facilities. Pakistani NGO facilities are the most efficient and able to serve the most clients per dollar. Government and NGO facilities are the most equitable, with greater percentages of their clients being drawn from the poor compared with private or franchise facilities. Private non-franchised facilities provide poorer service quality than all other facility types.

In Ethiopia, private facilities demonstrate the poorest quality, but are highly efficient, as are the NGO facilities. Private and NGO facilities' efficiency is more than double that of the franchise facilities, and better than the government facilities. The highest quality care is

attained by NGO and government facilities, while the greatest access for poor clients is provided by government facilities.

Government provision of family planning services offers a balance of good quality and accessibility by the poor. If government facilities in Pakistan were able to increase their efficiency by seeing more patients per dollar, government would be the superior service provider in our analyses. Similarly, and perhaps more realistically, if NGO service providers in Ethiopia were able to increase their access by the poorest economic group, they would become the superior service provider.

Franchised facilities in Pakistan are not significantly different from other private providers with regard to efficiency or access by the poor, but they are significantly worse than private non-franchised on these two measures in Ethiopia. Quality of care is significantly higher for franchised facilities in comparison with other private providers in both countries.

Family Planning Use in Central America: Closing the Equity Gap
Calvin Siow, February 2009
http://www.prb.org/Articles/2009/centralamericafamilyplanning.aspx

The overall contraceptive prevalence among women has increased in El Salvador, Guatemala, Honduras, and Nicaragua in the past two decades, according to the latest CDC report, Reproductive, Maternal and Child Health in Central America: Health Equity Trends. With the exception of Guatemala, the gap in contraceptive use between the poorest and wealthiest segments of the population has also decreased. Ensuring equitable access is important in improving maternal and child health, especially among the poor because they are often unaware of the benefits and live in areas where services are unavailable.

In El Salvador, overall contraceptive use increased from 53 percent in 1993 to 67 percent in 2002 and 2003. During the same period, contraceptive use among the poorest segment of the population increased from 33 percent to 52 percent, while among the wealthiest group, use remained relatively unchanged at 72 percent. As such, the "equity gap" in contraceptive use between the poorest and wealthiest population fell from 40 percent to 20 percent in a decade.

Contraceptive use in Guatemala increased overall in the past two decades, from 23 percent in 1987 to 43 percent in 2002. While the equity gap decreased in El Salvador, Honduras, and Nicaragua in the recent past, Guatemala's gap remained constant at 56 percent. This large gap is due primarily to the concurrent increase of contraceptive use in both the poorest and wealthiest segments of the population.

Surveys conducted in 1991 and 1992 and subsequently in 2001 show an increase of 16 percent in contraceptive use among Honduran women. In the lowest socioeconomic quintile, the contraceptive prevalence increased to 43 percent from 23 percent. Although the inequity in contraceptive use between the poorest and wealthiest Hondurans decreased over time, the gap remained high with a difference of 31 percent in 2001.

Among the four countries, Nicaragua has the highest overall contraceptive prevalence with 66 percent. The inequity is small compared to neighbouring countries, with 19 percent difference, according to the latest survey conducted in 2001. The narrowing of the gap is attributed to the increase use of contraceptives, especially among the poorest Nicaraguans, where the rate has more than doubled from 24 percent in 1992 and 1993 to 52 percent in 2001. During the same period, contraceptive use among the wealthiest population increased moderately from 65 percent to 71 percent. Therefore, much of the decrease in inequity is due greater access for the poor to family planning services.

Public Sector Family Planning Advances Closes the Equity Gap

The remarkable improvements in family planning services in Central America are due to a wide array of factors, such as the recognition that family planning plays an important role in ensuring healthy families, increased political support for women's rights, and the establishment of health facilities in rural areas. In addition, technical and financial support from development agencies such as USAID and UNFPA have helped these countries improve their family planning services and accessibility.

Part of the success in El Salvador is due to the Ministry of Health's efforts in improving family planning logistics and contraceptive availability at its public health facilities over the past decade. The contraceptive logistics system was redesigned and a cost-effective procurement system was set up to ensure that public health facilities have sufficient quantities of the appropriate contraceptives and that contraceptives are provided to the appropriate service providers. These measures strengthened family planning and helped El Salvador's family planning programme become self-sustainable.

In Guatemala, the Ministry of Health launched an initiative to provide information and access to contraceptives to increase contraceptive awareness among Guatemalans and overcome cultural, religious, and political barriers. Given that contraceptive use was especially low among Mayan women, these efforts focused especially on reaching underserved populations in the Guatemalan highlands. Recent policy efforts in Guatemala have also led to additional funding for reproductive health programmes, as well as the approval of a law to provide universal access to family planning.

Efforts in Honduras have also contributed to increasing contraceptive use and closing the equity gap. In the late 1990s, the Honduran government allowed auxiliary nurses from the Secretariat of Health (SOH) to insert Intrauterine Devices, which expanded access to an underused family planning method. In addition, an increase in public coverage by the SOH from 35 percent in 1996 to 41 percent in 2001 improved contraceptive access, particularly among women in the lowest wealth quintile since they rely heavily on public health services.

Legal and political support for reproductive health is strong in Nicaragua, where the constitutional guarantee to reproductive rights ensures contraceptive security. As a result, family planning services are offered by multiple government agencies and private sector organizations, thereby increasing contraceptive access and availability. In addition, the Nicaraguan Ministry of Health uses the community-based contraceptive distribution strategy to target the underserved population.

Family planning improvements made over the past two decades by Central American countries have enabled the poorest segments of the population greater access to contraceptives and family planning services. Further efforts in strengthening existing programmes would help ensure contraceptive security and further close the equity gap.

Regarding equity, Low use of contraception among poor women in Africa: an equity issue.
Andreea A Creanga, Duff Gillespie, Sabrina Karklins & Amy O Tsui. *Bulletin of the World Health Organization* 2011;89:258-266
http://www.who.int/bulletin/volumes/89/4/10-083329/en/index.html

Commonly accepted components of successful family planning programmes include improvements in geographic and public–private sector access to a broad mix of contraceptive methods, availability of competent health-care providers, promotion of active behavioural change through communications interventions, and political will.

Trends in National Family Planning Programs, 1999, 2004, and 2009

John Ross and E Smith, International Perspectives on Sexual and Reproductive Health, 2011, 37(3):125-133.
http://www.ncbi.nlm.nih.gov/pubmed/21988788

Regarding equity, the authors studied emphasis on special populations including the poor, and again noted regional differences, with Asia being the highest and Sub-Saharan Africa the lowest.

Private Sector Engagement in Sexual and Reproductive Health and Maternal and Neonatal Health: A Review of the Evidence
Supriya Madhavan, David Bishai, Department of Population, Family, and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, HDRC, December 20th 2010
http://hdrc.dfid.gov.uk/wp-content/uploads/2012/05/Private-Sector-Engagement-in-SRH-MNH.pdf

The strongest evidence in support of private sector interventions expanding access for the poor relate to conditional cash transfers for ANC and delivery care; and contracting for delivery care.

Not surprisingly, CCTs tend to be successful demand-side initiatives in increasing utilisation of ANC (Barber, 2008a, 2008b; Morris, 2004; Lim, 2010) and delivery services (Lim, 2010) by the poor – i.e., if you pay people to do something like use a health service, they will use it. The key ingredient to the success of a CCT in expanding access is effective targeting of subsidies. Contracting appears to be a successful supply-side intervention in terms of achieving improved access - as in the case of Chiranjeevi, Rwanda, Cambodia and Afghanistan - with a strong motivational push given by the reimbursements themselves in exchange for compliance with tightly monitored contracts. Several other studies present strong evidence that the following interventions expand access overall.

Social marketing of FP products and messages, adolescent reproductive health products and messages, iron folic acid supplements for pregnant and reproductive age women, Community based administration of misoprostol for the prevention and treatment of PPH.

Neither of these has been evaluated specifically for its impact on access by the poor. Social marketing campaigns in MNH and SRH have been successful in expanding overall access to actionable health information, accredited services and quality products. However, most of the standard market surveys used to measure social marketing campaigns' impact are interested in coverage in general and do not assess the SES profile of the population reached by the campaign. The evidence on training of community-based agents on the administration of misoprostol for the prevention and treatment of PPH uniformly supports the notion that this is an important intervention to expand access to a life-saving drug at the household level, though none of these studies assess the impact on the poor specifically.

Several different market mechanisms in service delivery and financing give mixed results or results of only moderate strength under different health areas, indicating the need for further research in these areas. No studies were found to provide any evidence as to the impact of private sector interventions to expand access to safe abortion services for the poor.

Designing Health and Population Programs to Reach the Poor
http://www.prb.org/pdf06/designingprograms.pdf

Before the experiment, the better-off were more likely to use public health care than the poor in all 12 districts. Analysis showed that, by the end of the five-year experiment, the provision of health care became more equitable or "pro-poor" in the contracted out districts compared to the government districts. Equity improved because coverage increased faster among the poor in the contracted-out districts. Before the experiment, the coverage rate for the basic

care package in the poorest quintile was roughly the same (about 15 percent) in all districts. Afterward, the average coverage rate in the poorest quintile had risen to over 40 percent in the contracted-out districts, compared with only about 25 percent in the government ones.

The use of modern contraceptives and professional health care during delivery also varies considerably according to wealth. On average, married women in the wealthiest quintile are more than four times more likely than those in the poorest quintile to use contraception.

In Kenya, the Kisumu Medical and Educational Trust increased the availability of reproductive health services in poor communities through training and creating a network of existing private medical providers.

Nepal DHS, 2011
http://aidsdatahub.org/dmdocuments/DHS_2011_Preliminary_report.pdf

There are many factors to consider regarding equity of uptake, not only public/private sector issues. For example, level of education or urban/rural populations:

Use of modern methods of contraception is highest among women with no education with female sterilisation being the most popular method (23 percent). On the other hand, temporary modern methods like condoms, pills, and IUD are more popular among educated women. Women with no education are less likely to use any traditional methods compared with those with SLC and higher level of education, with use ranging from 4 percent among women with no education to 13 percent among women with SLC and higher education. A similar pattern was also observed in the 2006 NDHS. Contraceptive use varies markedly by residence. For example, use of modern methods among urban women is 18 percent higher than among rural women.

Other Useful Resources

Use of clinic versus private family planning care by low-income women: access, cost, and patient satisfaction.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1349623/

Ashford LS, Gwatkin DR and Yazbeck AS. **Designing health and population programs to reach the poor.** Population Reference Bureau, 2006
http://www.prb.org/pdf06/designingprograms.pdf

UNICEF. **Adolescence: The big picture**. UNICEF, 2009 (updated)
http://www.unicef.org/adolescence/index_bigpicture.html

WHO. **WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Outcomes Among Adolescents in Developing Countries**. Geneva: World Health Organization, 2011.

Boerma JT, Bryce J, Kinfu Y, Axelson H, Victora CG, Countdown 2008 **Equity Analysis Group. Mind the gap: equity and trends in coverage of maternal, newborn, and child health services in 54 countdown countries**. *Lancet* 2008; 371: 1259-67 doi: 10.1016/S0140-6736(08)60560-7 pmid: 18406860**.**

Townsend JW. **Program strategies for reducing inequities in reproductive health services**. *Stud Fam Plann* 2010; 41: 139-42 doi: 10.1111/j.1728-4465.2010.00236.x.

Gakidou E, Vayena E. 2007. **Use of modern contraception by the poor is falling behind**. PLoS Medicine 4: 381–8.

Gillespie D, Ahmed S, Tsui A, Radloff S. 2007. **Unwanted fertility among the poor: an inequity?** Bulletin of the World Health Organization 85: 100–7.

Kaplan RS, Norton DP. 1996. **Using the balanced scorecard as a strategic management system**. Harvard Business Review. (January/February): 75–85.

3. Public Sector and Increased Uptake?

Nepal and Family Planning: An Overview
http://www.searo.who.int/LinkFiles/Family_Planning_Fact_Sheets_nepal.pdf

The government provides methods to over 80% of current users. In addition, 8% of users acquire their methods from NGOs, primarily from the Family Planning Association of Nepal, and 7% get their methods from the private medical sector, largely from pharmacies.

Nepal DHS, 2011
http://aidsdatahub.org/dmdocuments/DHS_2011_Preliminary_report.pdf

Data from the four Demographic and Health surveys conducted in Nepal over the past 15 years show that current use of modern contraception has increased from 26 percent in 1996 to 44 percent in 2006 and then declined slightly in 2011. There is a shift in the use of modern methods. For example, use of implants and IUDs has increased in the last five years. This may be a reflection of the recent shift in emphasis in the family planning program in Nepal encouraging the use of long-term temporary methods. The use of male sterilisation has gradually increased with greater involvement of men in family planning. At the same time there has been a decrease in the use of female sterilisation.

There are many factors to consider when looking at increased uptake, for example education and rural/urban differences. Use of modern methods of contraception is highest among women with no education with female sterilisation being the most popular method (23 percent). On the other hand, temporary modern methods like condoms, pills, and IUD are more popular among educated women. Women with no education are less likely to use any traditional methods compared with those with SLC and higher level of education, with use ranging from 4 percent among women with no education to 13 percent among women with SLC and higher education. A similar pattern was also observed in the 2006 NDHS. Contraceptive use varies markedly by residence. For example, use of modern methods among urban women is 18 percent higher than among rural women.

DHS Comparative Reports No. 16, Contraceptive Trends in Developing Countries. Shane Kahn et al, Macro International 12/2007
http://www.measuredhs.com/pubs/pdf/CR16/CR16.pdf

A comparison of DHS data from 35 countries between 2000 and 2005 noted that most women received contraceptives from a public source and that over time, contraceptive use had increased substantially.

Family planning: the unfinished agenda.
John Cleland, Stan Bernstein, Alex Ezeh, Anibal Faundes, Anna Glasier, Jolene Innis. The Lancet Sexual and Reproductive Health Series, The Lancet: October 2006.
http://www.sciencedirect.com/science/article/pii/S0140673606694804

The involvement of private medical practitioners in family-planning services varies widely. It tends to be low in Asia, with the exception of Indonesia, where a deliberate shift to private sector provision has taken place as a cost-containment measure. In Latin America, private-

sector involvement is higher; typically, about 30% of people using a medical facility for their current contraceptive method cite a private-sector facility. The corresponding figures in sub-Saharan Africa are variable, being more than 50% in Uganda (an indication of poor government services), high also in Kenya (40%) because of deteriorating government services, but low (<20%) in countries with stronger government programmes, such as Namibia and South Africa. Although the private sector caters mainly for the needs of urban affluent couples, to encourage their role makes good sense because choice is expanded and costs to the government are reduced.

Designing Health and Population Programs to Reach the Poor
Lori S. Ashford, Davidson R. Gwatkin, and Abdo S. Yazbeck, Population Reference Bureau, 2006
http://www.prb.org/pdf06/designingprograms.pdf

Contracting with NGOs to manage the primary health care system was found to be an effective approach for increasing service coverage and directing more services to the poor in rural areas of Cambodia With funding from the Asian Development Bank, the MOH conducted a large-scale, five-year experiment (1999–2003) in 12 rural health districts, with a total population of around 1.5 million people. The experiment consisted of randomly assigning districts to one of three health care delivery models:

- **Contract-out.** Contractors had complete management responsibility for services, including hiring and firing of personnel and setting wages, procuring drugs and supplies, and organising the facilities.
- **Contract-in.** Contractors worked within the MOH system to strengthen the existing administrative structure and health care personnel.
- **Government.** All aspects of service management remained with the government's district health teams.

The MOH used a competitive bidding process to select NGOs, and tracked precisely defined service indicators for all 12 districts, including indicators that tracked coverage among poor population groups. Results were measured through surveys taken before and after the intervention.

Study results showed large increases in the overall coverage rates of health services in all 12 districts, both contracted and government managed; however, the districts that used contracted services achieved much larger increases than the districts that relied on government-managed services only. For example, between 1997 and 2003, immunisation coverage increased from 25 percent to 82 percent in districts that used contractors.
In contrast, government districts increased coverage for all health services, but at a lower rate than districts that contracted out, and they failed to reach the coverage targets for many of the services. Independent assessments of the quality of care also indicated that the contractors improved the quality of services provided at health facilities more than the government over the same period.

Influence of User Fees on Contraceptive Use in Malawi
Monique Hennink Nyovani Madise, African Population Studies Vol.20 n°2
http://www.bioline.org.br/pdf?ep05014

Increased cost can change chosen method
This study found that poor communities assessed the affordability of contraception not only in simple monetary terms of the cost of a method, but in relation to the health benefits of avoiding a further pregnancy and the cost of raising another child. Therefore, many residents of poor communities felt that contraceptive methods were affordable. Many felt that the actual cost of temporary methods (pills, injections) was acceptable and would still be affordable even with price increases of 30-50%, but financing permanent methods of contraception was

much more difficult. This may imply that with user-fees for family planning services, poor women may opt for more affordable temporary methods of contraception even though they would prefer sterilisation.

Even though family planning services are currently free of charge at government health facilities, a range of situations (i.e. method stock-outs) and hidden costs for referrals (i.e. transport, registration fees or pregnancy testing fees) meant that users still incurred costs to use the free services. These costs placed a greater burden on rural residents wishing to access family planning services, either due to high transport costs to access services, or the lack of provider choice in rural areas which compelled them to use private facilities. The implications of these findings are that the introduction of user-fees is likely to have a greater burden on rural residents wishing to use contraception. To overcome a possible decline in contraceptive users there needs to be greater co-operation between public and non-public service providers, perhaps to identify cost-waivers for the additional fees incurred by those referred from Government facilities.

The introduction of user fees may lead to a change in consumer behaviour, with clients forgoing fee paying government services for higher quality of care provided at other outlets.

Public stewardship of mixed health systems
Lagomarsino G, de Ferranti D, Pablos-Mendez A, Nachuk S, Nishtar S, Wibulpolprasert S.**.** *Lancet*. 2009;374(9701):1577–8.
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)61241-1/fulltext

Meeting family planning needs by ensuring access to contraceptives now and in the future requires recognition and integration of various market sectors—including NGOs, as well as subsidised and commercial options—a total market approach. However, it is rare that managers of family planning programmes make plans and decisions in the context of the "total market," in which different provider segments reach different consumer markets. Others have described this role as stewardship, or "setting and enforcing the rules and incentives that define the environment and guide the behaviours of health-system players."

Trends in National Family Planning Programs, 1999, 2004, and 2009
John Ross and E Smith, International Perspectives on Sexual and Reproductive Health, 2011, 37(3):125-133.
http://www.ncbi.nlm.nih.gov/pubmed/21988788

The authors examined data from a questionnaire given in 81 countries assessing 31 features of family planning that were organised into 4 components, including uptake elements of services and access to methods. Their questionnaire was oriented to government programmes. The authors found large difference by region, reporting that access to methods was highest in the Middle East/N Africa, followed by Asia, followed by Latin America (where the authors hypothesise that this was because of the important role of the private sector in that region). Sub-Saharan Africa had the lowest access scores. They note that a poor access precludes contraceptive adoption and that efforts of national programs are clearly lagging behind demand for services.

Fertility Differences Among Developing Countries: Are they still related to family planning program efforts and social settings?
Anrudh Jain and J Ross, International Perspectives on Sexual and Reproductive Health, 2012, 38(1):15-22.
http://www.ncbi.nlm.nih.gov/pubmed/22481145

The authors examined data from 40 countries using DHS data acquired between 2003 and 2010. They found that average total fertility rate decreases with both improved social setting (using the Human Development Index and a second index of female education and the infant

mortality rate) and improved family planning programs, but with a stronger effect of social setting. When the authors removed the economic component of the Human Development Index, they found that the results did not change, suggesting that economic factors may not contribute much to fertility differences among countries. Therefore they conclude that efforts to improve female education and reduce infant mortality are as important as improving national family planning services.

The influence of quality of care upon contraceptive use in rural Bangladesh
Koenig MA, Hossain MB, Whittaker M. 1997. Studies in Family Planning 28: 278–89.
http://www.jstor.org/stable/pdfplus/2137859.pdf?acceptTC=true

Quality of care is important in increasing uptake

Efforts to develop quantitative indicators of quality of care for family planning services, and to evaluate its role in contraceptive behaviour, remain at an early stage. The present study, based upon an analysis of prospective data from a sample of 7,800 reproductive-aged rural Bangladeshi women, provides empirical evidence on the importance of quality of care for contraceptive practice. The results demonstrate that the perceptions of women regarding the quality of field-worker care were significantly related to the probability of subsequent adoption of a family planning method. Women who were not using a method and who scored high on an index of perceived quality of care were 27 percent more likely to adopt a method subsequently, compared with women with a low score. Effects were even more pronounced for contraceptive continuation; high quality of care was associated with a 72 per cent greater likelihood of continued use of any method of contraception.

Other Useful Resources

Women with an Unmet Need for Contraception in Developing Countries and Their Reasons for Not Using a Method
Sedgh G, Hussain R, Bankole A, Singh S. 2007.. New York: Guttmacher Institute.

Assessment of quality of post abortion care in government hospitals in Addis Ababa, Ethiopia
Melkamu Y, Enquselassie F, Ali A, Gebresilassie H, Yusuf L., *Ethiopian Medical Journal*. 2005 Jul;43(3):137-49.
http://www.ncbi.nlm.nih.gov/pubmed/16370545

Achievements in Public Health, 1900-1999: Family Planning
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4847a1.htm

4. Reduction in unwanted pregnancies

Contraception and Health
Cleland, J, 2012, The Lancet, to be published 9th July

Increasing levels of contraceptive use in developing countries over the past 20 years have cut the number of maternal deaths by 40%, simply by reducing unintended pregnancies. By preventing higher risk pregnancies, particularly those at high parities and those that would have ended in unsafe abortion, increased use over little more than a decade has also reduced by about 26% the maternal mortality ratio, the risk of dying per 100,000 births. A further 30% reduction in maternal deaths could be achieved by fulfilment of unmet need for contraception. In addition, the non-contraceptive benefits to women's health of specific methods outweigh the risks. Contraception also has the potential to improve perinatal outcomes and child survival primarily by lengthening inter-pregnancy intervals. In developing countries, the risk of prematurity and low birth weight is doubled when conception occurs

within six months of a previous birth and children born within two years of an elder sibling face a 60% increase of infant death.

Abortion Worldwide: A Decade of Uneven Progress
Susheela Singh, Deirdre Wulf, Rubina Hussain, Akinrinola Bankole, Gilda Sedgh, Guttmacher Institute, 2009
http://www.guttmacher.org/pubs/Abortion-Worldwide.pdf

Contraceptive use, which reduces levels of unintended pregnancy, has increased in many parts of the world, particularly Latin America and Asia. The major direct factor contributing to unintended pregnancy is the level of effective contraceptive use.

- The global rate of unintended pregnancy declined from 69 per 1,000 women aged 15–44 in 1995 to 55 per 1,000 in 2008. The decline was greatest in the more developed world.
- Globally, the proportion of married women practicing contraception increased from 54% in 1990 to 63% in 2003.
- Contraceptive use also increased among unmarried, sexually active young women in many developing countries.

By 2008, the unintended pregnancy rate in the less developed world was one-third higher than that in the more developed world (57 vs. 42 per 1,000 women aged 15–44).163 When China is excluded, this contrast is even greater—the unintended pregnancy rate in the developing world (without China) was 60% higher than that in the developed world. Roughly half of all unintended pregnancies ended in abortion—53% of those in more developed regions and 48% of those in less developed regions

Condom use within marriage: a neglected HIV intervention
Mohamed M. Ali, John Cleland, & Iqbal H. Shah, Bulletin of the World Health Organization, 82 (2004), pp. 180–186
http://www.who.int/bulletin/volumes/82/3/180-186.pdf

The majority of abortions and unwanted births arise from non-use of any contraceptive method. Contraceptive avoidance, or non-use, remains the dominant cause of unintended births, accounting for 71% of such births in 14 developing countries.

Family planning: the unfinished agenda
John Cleland, Stan Bernstein, Alex Ezeh, Anibal Faundes, Anna Glasier, Jolene Innis. The Lancet Sexual and Reproductive Health Series, October 2006.
http://www.sciencedirect.com/science/article/pii/S0140673606694804

Clearly, all contraceptive methods can reduce unintended pregnancy, but much potential is unrealised. Realisation of such possibilities can be achieved by: increasing the prevalence of use of any contraceptive method (even the least effective ones); encouraging switching from less effective to most effective ones; enhancing continuation of all reversible methods; boosting adherence to methods that depend on adherence for their effectiveness; or a combination of these. With the aim of raising the prevalence of use of any contraceptive method and the uptake of an alternative method after contraceptive discontinuation, a range of methods should be made available; the addition of a new family planning method into a programme usually attracts new users and raises overall frequency of use. However, the ideal of availability of a full range of methods is inevitably tempered by costs, staff training, and logistical considerations. To attempt to promote all methods equally is unnecessary and possibly counterproductive.

The Role of Family Planning in the Reduction of Poverty

Arthur A. Campbell, Journal of Marriage and Family, Vol. 30, No. 2, Family Planning and Fertility Control (May, **1968**- older paper), pp. 236-245: National Council on Family Relations http://www.jstor.org/stable/349249

The prevention of unwanted births would have a substantial economic impact on families living in poverty. Using conservative assumptions, the costs of family-planning programs are estimated to average $300 to prevent every unwanted birth that would otherwise have occurred. Over the years, however, the avoidance of ar unwanted child would save the family an average of $8,000 in the costs of child care. It would also enable couples to add an average of $600 to their annual incomes over a four-year period by making it possible for some of the wives to work. When all of these savings and added earnings are discounted to the year in which the unwanted births were prevented, the total economic benefits average $7,800 for every $300 spent on family-planning services. The ratio of benefits to costs is 26 to 1.

5. Reduction of unsafe abortions

Abortion Worldwide: A Decade of Uneven Progress
Susheela Singh, Deirdre Wulf, Rubina Hussain, Akinrinola Bankole, Gilda Sedgh, Guttmacher Institute, 2009
http://www.guttmacher.org/pubs/Abortion-Worldwide.pdf

The overall abortion rate worldwide declined between 1995 and 2003. This is largely due to reductions in levels of safe abortions, particularly in Eastern Europe. The number of abortions worldwide fell from an estimated 45.5 million in 1995 to 41.6 million in 2003. The estimated number of unsafe abortions changed little during this period—from 19.9 million to 19.7 million—and almost all occurred in developing countries. The rate of safe abortions dropped between 1995 and 2003 from 20 to 15 per 1,000 women aged 15–44, while the unsafe abortion rate declined hardly at all—from 15 to 14 per 1,000. The overall abortion rate declined from 35 to 29 per 1,000.

Rural women and poor women are more likely than better-off and urban women to turn to traditional practitioners and unsafe methods, and therefore to experience health complications. However, they are less likely to receive the post-abortion treatment they need.

About 70,000 women die each year from the effects of unsafe abortion—an estimate that has hardly changed in 10 years. An estimated eight million women annually experience complications that need medical treatment, but only five million receive care. Most postabortion care is provided in government health facilities, exacting a heavy toll on under-resourced public health systems in poor developing countries.

There are three known ways to reduce the prevalence of unsafe abortion and its harmful consequences.

- Expanding access to effective modern methods of contraception and improving the quality of contraceptive information and services may be the strategy that is the most achievable in the near term, and that is most responsive to women's long-term health needs.

- Making abortion legal and ensuring that safe abortion services are accessible to all women in need are urgent health, economic and moral imperatives.

- Improving the quality and coverage of postabortion care through the increased use of the safest and most cost effective methods for such care—MVA and medication

abortion—at primary-level facilities would allow a higher proportion of cases to be safely treated, and would reduce both maternal mortality and morbidity and the cost of postabortion services.

Reducing levels of unintended pregnancy would lessen women's recourse to unsafe abortion. It would also make significant contributions to the survival and health of women and children, the status of women, and the financial stability of households. Eliminating unsafe abortion and providing access to safe abortion would reduce ill health, death and lost years of productivity among women, and avert the financial burden of treating related health complications. Achieving these goals would lead to enormous individual and societal benefits—for women, their families and countries as a whole.

Do better family planning services reduce abortion in Bangladesh?
Mizanur Rahman, Julie DaVanzo, Abdur Razzaque, Lancet 2001; 358: 1051–56
http://ac.els-cdn.com/S0140673601061827/1-s2.0-S0140673601061827-main.pdf?_tid=f85fb13428b9db1ccb7dac2b8b7452de&acdnat=1339769031_1347123fdce3272f6b193a095411fd07

Fertility decline is often associated with an increase in contraception and abortion, but the causal relations are difficult to examine with non-experimental data. This study aimed to assess the effects of family planning services on abortion rates in two similar areas. Abortion rates were significantly lower in the area with better family planning services compared with the comparison area. Abortion of unintended pregnancies is similar in both areas, but the higher levels of contraceptive use in the treatment area have led to lower levels of unintended pregnancy and abortion. The likelihood that an unintended pregnancy will be aborted has increased in both areas but the decrease in unintended pregnancies was sufficiently large in the treatment area to offset this increase. Abortion may increase during the fertility transition in less-developed countries as the desire to limit family size increases unless there is widespread availability of quality family planning services.

Unsafe abortion: the preventable pandemic
David A Grimes, Janie Benson, Susheela Singh, Mariana Romero, Bela Ganatra, Friday E Okonofua, Iqbal H Shah, *The Lancet,* 2006; 368: 1908–19
http://www.sciencedirect.com/science/article/pii/S0140673606694816
and
Relationships between Contraception and Abortion: A Review of the Evidence
Cicely Marston and John Cleland, *International Family Planning Perspectives*, 2003, 29(1):6-13
http://www.jstor.org/stable/3180995?origin=crossref

Availability of modern contraception can reduce but never eliminate the need for abortion. Making abortion legal, safe, and accessible does not appreciably increase demand. Instead, the principal effect is shifting previously clandestine, unsafe procedures to legal and safe ones. Hence, governments need not worry that the costs of making abortion safe will overburden the health-care infrastructure. Countries that liberalised their abortion laws such as Barbados, Canada, South Africa, Tunisia, and Turkey did not have an increase in abortion. And the Netherlands, which has unrestricted access to free abortion and contraception, has one of the lowest abortion rates in the world.

Primary prevention includes reduction in the need for unsafe abortion through contraception, legalisation of abortion on request, the use of safer techniques, and improvement of provider skills. Access to safe, effective contraception can substantially reduce−but never eliminate− the need for abortion to regulate fertility. The effect of national contraceptive programmes on reducing the rate of abortion is well documented. In seven countries (Bulgaria, Kazakhstan, Kyrgyzstan, Switzerland, Tunisia, Turkey, and Uzbekistan), abortion rates fell as use of modern contraception rose. In another six countries (Cuba, Denmark, Netherlands, Republic

of Korea, Singapore, and USA), abortion and contraception increased simultaneously; the uptake of effective contraception did not keep pace with couples' increasing desires for smaller family sizes.

In several of the six countries, abortion rates ultimately declined with continued contraceptive use and stabilisation of fertility rates at lower levels. Even with high rates of contraceptive use, however, unintended pregnancies will continue. No contraceptive method is 100% effective, and many couples in the developing world still encounter obstacles to contraception. Every year, 80 million women worldwide have an unintended pregnancy, and 60% of these are aborted. Thus, the need for safe abortion will continue.

The developing world has seen a revolution in contraceptive use−from a mere 9% of couples using any method in 1960−65 to 59% in 2003. Nevertheless, an estimated 27 million unintended pregnancies happen worldwide every year with the typical use of contraceptives. 6 million would happen even with perfect (ie, correct and consistent) use. An estimated 123 million women have an unmet need for family planning.

6. Contraception and Reduced Fertility

Family Planning Programs for the 21st Century: Rationale and Design- Chapter 2: The Impact of Voluntary Family Planning Programs on Fertility
John Bongaarts, John Cleland, John Townsend, Jane Bertrand, Monica Das Gupta, Intnerational family Perspectives, 30 (1): 34-38, Population Council, 2012, **Not yet published**

Evidence of family planning program effectiveness can be seen around the world in both controlled and "natural" experiments. One of the most compelling controlled experiments demonstrating the benefits of family planning is the landmark project undertaken in the Matlab district of Bangladesh. The Matlab population of 173,000 people was divided into two areas: a control area, which received the standard set of health care services that were available countrywide; and an experimental area, where access to services was greatly expanded to include home visits, a wide array of contraceptive choices, and follow-up care. The impact in the experimental area was large and immediate: contraceptive use increased markedly, fertility declined rapidly, and women's health, household earnings, and use of preventive health care improved. The program was so successful that it was expanded nationwide, contributing to a rapid fertility decline in Bangladesh.

Natural experiments, which compare two countries with similar social, economic, cultural, and religious characteristics—but with differing approaches to family planning programmes—also demonstrate the powerful impact of voluntary family planning. Jordan and Iran share many cultural and social characteristics, and their development indicators are nearly identical. Both countries have made major investments in health, and rates of infant and child mortality have dropped steeply over recent decades. But family planning has not been a government priority in Jordan, and the same was true in Iran until the late 1980s. In 1989 the Iranian government abruptly reversed course and became a strong supporter of family planning. Free contraceptive services were provided throughout the country by an extensive network of village health workers, and a vigorous communications campaign publicized the benefits of small families. The response was immediate and large. Fertility declined from more than 5 births per woman in the late 1980s to around 2 in 2000. No other country with a population over one million experienced a decline of such magnitude during the 1990s.

Family planning: the unfinished agenda.
John Cleland, Stan Bernstein,Alex Ezeh, Anibal Faundes, Anna Glasier, Jolene Innis. The Lancet Sexual and Reproductive Health Series, The Lancet : October 2006.
http://www.sciencedirect.com/science/article/pii/S0140673606694804

Promotion of family planning in countries with high birth rates has the potential to reduce poverty and hunger and avert 32% of all maternal deaths and nearly 10% of childhood deaths. It would also contribute substantially to women's empowerment, achievement of universal primary schooling, and long-term environmental sustainability. In the past 40 years, family-planning programmes have played a major part in raising the prevalence of contraceptive practice from less than 10% to 60% and reducing fertility in developing countries from six to about three births per woman. However, in half the 75 larger low-income and lower-middle income countries (mainly in Africa), contraceptive practice remains low and fertility, population growth, and unmet need for family planning are high. Most governments of poor countries already have appropriate population and family-planning policies but are receiving too little international encouragement and funding to implement them with vigour. What is currently missing is political willingness to incorporate family planning into the development arena.

Measuring the Demographic Impact of Family Planning Programmes

Fertility in Kenya and Uganda: A comparative Study of Trends and Determinants
Blacker, J, Opiyo C, Jasseh, M, Sloggett, S and J Ssekamatte-Ssebuliba (2005) *Populations Studies* 59(3): 355-373
http://www.jstor.org/stable/30040477

Between 1980 and 2000 total fertility in Kenya fell by about 40 per cent, from some eight births per woman to around five. During the same period, fertility in Uganda declined by less than 10 per cent. An analysis of the proximate determinants shows that the difference was due primarily to greater contraceptive use in Kenya, though in Uganda there was also a reduction in pathological sterility. The Demographic and Health Surveys show that women in Kenya wanted fewer children than those in Uganda, but that in Uganda there was also a greater unmet need for contraception. The researchers suggest that these differences may be attributed, in part at least, first, to the divergent paths of economic development followed by the two countries after Independence; and, second, to the Kenya Government's active promotion of family planning through the health services, which the Uganda Government did not promote until 1995.

The Demographic Impact of Family Planning Programs
John Bongaarts, W. Parker Mauldin and James F. Phillips (1990) *Studies in Family Planning.* Volume 21, No. 6
http://www.jstor.org/stable/10.2307/1966918

In response to concerns about the adverse consequences of rapid population growth, family planning programs have been implemented in many developing countries. The aim of the present study is to assess the impact of this programmatic approach on long-range population growth. The result of a new and hypothetical population projection indicates that in the absence of family planning programs the population of the developing world could be expected to reach 14.6 billion in the year 2100 instead of the 10 billion that is currently projected by the World Bank. Despite the apparent success of existing interventions, fertility control is far from complete, as many women continue to bear unwanted births. To assess the impact of this unintended childbearing a second hypothetical projection is made. With perfect implementation of reproductive preferences, the population size of the developing world in 2100 would be reduced by an estimated 2.2 billion below the current projection. Further strengthening of family planning programs and improvements in birth control technology are therefore likely to provide important demographic benefit

Other Useful Resources

Bongaarts, J (1982) **The Fertility-Inhibiting Effects of the Intermediate Fertility Variables.** *Studies in Family Planning.* 13(6/7): 179-189

Lloyd C and Ross, J (1989) **Methods for Measuring the Fertility Impact of Family Planning Programs: Experiences of the Past Decade,** Working Paper. The Population Council: New York.

Mauldin W.P and Ross, J (1991) **Family Planning Programs: Efforts and Results 1982-1989.** *Studies in Family Planning* 22(6): 350-367

Populations Reports, Series J, Number 29 (1985) **The Impact of Family Planning Programs on Fertility.** Population Information Program, Johns Hopkins University: Baltimore, MD.

Pritchett, L. (1994) **Desired Fertility and the Impact of Population Policies.** *Population and Development Review* 20(1): 1-55

8. Additional Information

Author
This query response was prepared by **Catherine Holley, C.Holley@ids.ac.uk**

Contributors
Janet Vail, PATH
John Cleland, London School of Hygiene and Tropical Medicine