Exploring the Links between Contraception, Abortion and Maternal Health in Pakistan

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According to the United Nations Population Fund (UNFPA), one in three of all pregnancy and childbirth related deaths can be avoided if women who want to use contraception have access to it. By reducing unwanted pregnancies, use of effective contraception also reduces the need to resort to induced abortion (more importantly unsafe induced abortion)[1]. Based on analysis of data from the recent Pakistan *Demographic Health Survey 2006-7*[2], this note briefly presents the current contraceptive behavior/practice in the country and tries to calculate the potential benefits (in terms of maternal deaths and illnesses prevented) of increasing the national contraceptive prevalence rate (CPR). Recommendations given, stress that policies and programmes must be made within a broader framework that enhances women's agency and access to resources throughout the event cycle that leads to positive maternal health outcomes.

Contraceptive use in Pakistan

The contraceptive prevalence rate (CPR), as reported by the PDHS is around 30%. Out of this 7% were using contraception to space and 23% were using it to cap childbirth. CPR is the lowest in Balochistan (14%) and the highest in Punjab (33%). Women in urban areas are almost twice as likely to use contraception as women in rural areas. Other factors positively influencing use included women's level of education, urban location, husband's education, socio-economic status, and number of living children[3].

According to PDHS (2006-07), nearly 43% of married women did not want anymore children and almost 20% wanted to wait at least two years before having another child, i.e. 63% of the married women should have been using contraception. Given the low CPR, in contrast to this, more than a quarter of the pregnant women (at the time of the survey) were reported to have unwanted pregnancies. Prior research has shown that unwanted pregnancies are the leading cause of induced abortions in Pakistan[4].

Establishing demand

Unmet need for contraception- women whose last birth or current pregnancy was mistimed or unwanted and who are not using contraception but do not want another child soon or do not want another child at all- in Pakistan is 25% (PDHS 2006-07); 14% for limiting childbirth and 11% for spacing childbirth.

[1] Bongaarts and Westoff, 2000.

[2] PDHS is part of a worldwide Demographic and Health Surveys programme funded by the United States Agency for International Development (USAID) and supported by United Nations Population Fund (UNFPA) and United Nations Children's Education Fund (UNICEF). PDHS 2006-07 is the second such survey conducted in Pakistan under the Ministry of Population Welfare and the National Institute of Population Studies (NIPS). The survey gathers information on fertility levels, family planning, maternal and child health, infant and child mortality, immunization and nutritional status of mothers and children.

[3] NIPS and Macro International: Table 5.6, p.59.

[4] Casterline and Arif, 2003.

Analyzing reasons for the existence of unmet need shows that increasing the CPR will not come about simply by modifying the supply side or through facilitating access. The more obstinate barriers relate to lack of knowledge, misconceptions and to beliefs and attitudes of not only women but also those around them.

Table 1. Reasons for Non-use among Women with Unmet Need

	Unmet need		
Reasons for non-use	**Unmet need to space**	**Unmet need to limit**	**Total**
Up to God	33.8	31.1	32.2
Respondent opposed	7.0	5.1	5.9
Husband opposed	20.9	14.4	17.0
Others opposed	0.9	0.9	0.9
Religious prohibition	4.3	4.8	4.6
Knows no method	2.9	0.8	1.6
Knows no source	0.9	0.5	0.6
Health concerns	3.4	6.3	5.1
Fear side effects	7.7	10.1	9.1
Lack of access/too far	--	0.3	0.2
Cost too much	0.9	2.0	1.5
Inconvenient to use	0.2	0.5	0.4
Interferes with body's processes	1.1	3.9	2.8

Data source: PDHS 2006-07, authors' analysis.

Agency and Access to Resources

We have already argued[5] that women do not perceive themselves as having enough **agency** to plan their pregnancies or limit their family size, as evidenced by the reasons cited, in Table 1 above, for non-use. This means that for many women family planning is still not a choice, or not considered to be a choice. More dangerously a woman might not even think about family planning until she actually conceives at which point she might decide to terminate the pregnancy. In short, it takes enhanced agency for a woman to exert more decision-making power in the choices made along the event cycle leading to positive outcomes[6].

Agency is also linked with **access to resources**. Access to resources is another dimension of increasing women's agency, for without adequate information and quality services a woman cannot take the steps required to achieve more positive outcomes in her reproductive life. For example, the PDHS finds that one in five women with unmet need did not use contraception due to knowledge and misconception related factors. These include health concerns, fear of side-effects, inconvenience, and lack of knowledge regarding method or source of obtaining contraceptives.

This is also borne out by the scant information we have on contraceptive failure rates in Pakistan, which is not covered by the PDHS. The literature review of medical and community studies conducted by the Collective provides evidence to further the argument that unsafe abortions and related complications can be linked with contraceptive failure and/or misuse. Medical researchers conclude that basic family planning counseling must be an integral part of reducing unsafe abortions[7].

Maternal Mortality and Morbidity

For every 100,000 live births in the country 297 mothers die due to childbirth

[5] Gazdar, 2009

[6] Khan, 2009

[7] Khan, 2009a

or pregnancy related complications[8]. Childbirth is the leading cause of death among women of reproductive age; i.e. one in five women aged 12-49 die due to childbirth related complications (Table 2). Spontaneous and induced abortion related complications account for 6% of all maternal deaths (Table 3).

Table 2. Causes of Female Deaths (aged 12-49)

Cause of death	Total %	Most susceptible age-groups
1. Pregnancy, childbirth, puerperium	20%	25-39
2. All Cancers	11%	40-49
3. Tuberculosis	10%	<20-24, 30-39, 45-49
4. All other Infectious diseases	10%	<20, 25-34
5. Diseases of gastrointestinal tract	9%	20-24, 44-49

Data Source: *PDHS 2006-7*, p.175

Table 3. Causes of Maternal Deaths

Causes of Maternal Deaths	%
Postpartum hemorrhage	27%
Puerperal sepsis	14%
Eclampsia	10%
Iatrogenic causes	8%
Obstetric embolism	6%
Abortion related (spontaneous & induced)	6%
Ante partum hemorrhage	6%
Obstructed labor	2.5%
Other direct causes	5.5%

Data Source: *PDHS 2006-7*, p.180

Death however is not the only risk that women face when pregnant or giving birth; there is also the possibility of serious illness/injury. These illnesses cover headaches to hemorrhages or fistulas (perforation in the vagina or rectum generally caused by prolonged labor). According to a report of the Society of Obstetricians and Gynecologists of Pakistan, for every childbirth/pregnancy related death approximately 12.5 women are likely to suffer morbidity[9].

We know from the PDHS that less than half of these women will seek treatment for these problems[10]. If not treated properly, these complications, especially severe ones such as fistulas and heavy vaginal bleeding, can develop into chronic problems and result in women withdrawing or being isolated from social activities.

Access to safe services remains a critical factor in maternal health, but a more nuanced understanding of access is needed. The majority of women in Pakistan (more than 60%) still prefer to use of *dais* (untrained traditional birth attendants) and other unsafe service providers for deliveries[11]. Qualitative research by the Collective suggests that this may still be the case even when women may have access to safer services. Further research is needed to explore women's experience of medical services as well as their relationships with unsafe providers; it may be that they have more access and higher comfort levels with the latter.

Could contraception save lives?

PDHS data can be used to calculate the impact of contraception on maternal outcomes. Applying the current rate of pregnancy related maternal mortality to

[8] National Institute of Population Studies and Macro International Inc. 2008, p.179. This is the pregnancy-related maternal mortality ratio, i.e. deaths that occurred while the woman was pregnant, during childbirth, or within 6 weeks after delivery. The maternal mortality ratio (i.e. direct or indirect maternal death) is 276 deaths per 100,000 live births.

[9] SOGP, 2009, p

[10] National Institute of Population Studies and Macro International Inc. 2008, p. 110.

[11] ibid., p. 177.

the estimate of current eligible female population (i.e. married and of childbearing age) that is likely to give live birth we can expect 31,482 mothers to die in Pakistan in a year. Given the estimate of childbirth related morbidity, an estimated 393,525 women can be expected to experience morbidity.

One way to reduce pregnancy/childbirth related deaths and illnesses is to reduce the number of unwanted pregnancies through the use of effective contraception. We know (from the PDHS) that that more than a quarter of all pregnancies were unwanted. Preventing those pregnancies through contraceptive use (assuming 100% effectiveness) could have averted 8,500 maternal deaths and 106,250 maternal morbidities.

If unmet need was to be completely eliminated and the CPR went up to 55% (current use plus unmet need) then we could expect around a 36% decline in maternal mortality.

While these numbers show that contraceptive use could directly save women's lives, the linkages are not as clear cut as we would like. For example, in the case of India, Bangladesh and Nepal despite high contraceptive prevalence rates the maternal mortality figures appear more dire than in Pakistan (Table 4). Table 4 shows that Sri Lanka has the highest CPR as well as the lowest MMR; one should also bear in mind that the country has the highest literacy rate, among countries listed here. Thus, without reference to concepts of women's agency and access to resources, we must refrain from attributing changes in maternal mortality to shifts in contraceptive prevalence.

Table 4[12]. Comparison CPR and MMR amongst South-Asian Countries

Country	**CPR** (Percentage of married women currently practicing family planning)	**Unmet Need**	**MMR** (female deaths related to childbirth per 100,000 live births)
Pakistan (2006-07)	30%	25%	297
Bangladesh (2007)	56%	17%	351
India (2005-2006)	56%	13%	450[13]
Sri Lanka [14]	68%	n/a	58
Nepal (2006)	48%	25%	281

In our use of the event cycle[15] as a way to understand how maternal outcomes are linked with unsafe abortion, we have established that there are many decisions and preventive practices (including contraceptive use) along the road to maternal morbidities and mortality. At every stage a woman need to exercise agency, as well as have access to all the necessary resources (including knowledge, transport, and the existence of quality health services), in order to ensure her well-being. The critical question not only for Pakistan but for other similar countries is whether these factors have been built into practices along all stages of the event cycle, not just at certain junctures.

Need for further research

There is dearth of qualitative and quantitative studies, in Pakistan, that explore the links between determinants of women's agency/autonomy and their

[12] MEASURE, Demographic and Health Surveys
[13] United Nations. [accessed January 11, 2010]
[14] ibid.
[15] Khan, 2009.

health outcomes, including reproductive health. Studies on maternal/reproductive health in Pakistan, including the PDHS, have tended to focus on socio-demographic factors such as age, education, parity and economic class. Research from other parts of the world, such as India, have shown that while important, socio-demographic factors are not reliable indicators of women's status rather more direct measures need to be used[16]. Such measures include women's ability to control household finances, ability to act on health care related decisions and their freedom of movement. If policies to increase CPR are made without regard to issues of women's agency, the results will be inadquate.

Implications and Recommendations

- Policies and programmes run by the government would be more successful if they were all premised upon enhancing women's agency as a goal for all dimensions of her life. This includes the ability to take decisions regarding marriage, sexual relations, education, employment and more.
- Government needs to run safe, accessible, quality reproductive health services; in short provide the resources for women to exercise their agency vis-à-vis reproductive health.
- While we seem to have overcome cost in this area, a lot more work needs to be done with regard to effective knowledge dissemination and nuances involved in access to services. This should also include medical facts and findings on side-effects, treatment of side-effects and information about alternative methods of contraception.
- Further data on determinants of women's agency in Pakistan is required to hone in on issues that impede and those that enhance a woman's ability to not only make the right choices regarding her health but to also act upon them.

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This Resource Brief is an output of a larger research study to measure the economic cost of unsafe-abortion relation morbidity and mortality in Pakistan. Other outputs are available on our website.

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