

The Future of Long-acting and Permanent Methods of Contraception in Bangladesh

A Policy Brief



Photograph: Courtesy of EngenderHealth

Background

In this policy brief we make a systematic review of the trend of demand for and use of long-acting and permanent methods (LAPM; IUD, implants, and female or male sterilizations) and programmatic and socio-cultural factors associated with the low use of LAPM and combine the findings from the evaluation of the Mayer Hashi (MH) project that provided interventions to increase the use of LAPM in 21 districts during 2010-2013. We then develop a set of recommendations that will help the family planning programs strategize and prioritize the future LAPM program actions in Bangladesh.

Although Bangladesh achieved low level of fertility [total fertility rate of 2.3 births per

woman], a high proportion of mothers (30%) report to have unintended births, and 12% of women report to have unmet need for contraception (NIPORT 2013). Although two-thirds of married women of reproductive age do not want to have any more children, i.e., want to limit childbearing, only 8% of currently married women of reproductive age (CMWRA) use LAPM, representing only 13% of all contraceptive users. LAPM are more appropriate for couples who want to limit childbearing, and the methods are theoretically most cost-effective. In Bangladesh, women typically complete their family before reaching the age of 30. The unique advantage of adoption of LAPM is that couples do not have to sustain use of short-acting methods (pills, injectables, and condoms), which have either risks of failure or early discontinuation or both resulting in unintended pregnancies and subsequently high incidence of menstrual regulation (MR) or abortion, during their remaining 15-20 years of reproductive life. Programmatically it is better to

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have high use of LAPM. The Directorate General of Family Planning (DGFP) places high priority on LAPM service delivery; its unit “Clinical Contraceptive Service Delivery (CCSD)” that delivers LAPM had an annual budget of Taka 222 crore (US \$ 29 million) in 2011-12, which is about one tenth of the entire Health, Population, and Nutrition Sector Development Program (HPNSDP) annual budget (MOHFW 2012a). For LAPM delivery, about 40% of the CCSD budget is spent on the payment of client compensation and provider fees.¹ But it has been difficult to improve LAPM use in the recent decades (NIPORT 2013).



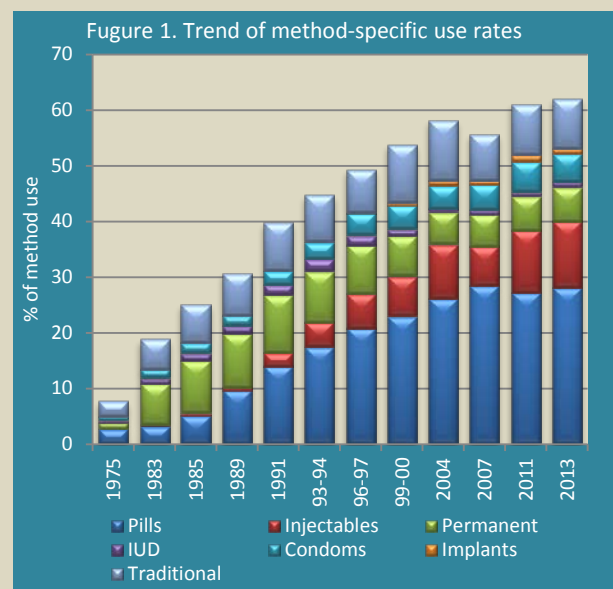
Photograph: Courtesy of EngenderHealth

Trend of LAPM use

The recruitment of permanent method (PM) clients slowed down dramatically in the early 1990s, when the annual number of PM users exiting from the reproductive ages was much larger than the new PM acceptors leading to a large deficit in the number that is required to maintain or increase the prevalence of PM.

Figure 1 shows that the contraceptive prevalence rate (CPR) has increased from nearly

20% in the early 1980s to 62% in 2013. Permanent method [PM—female sterilization or tubectomy and male sterilization or vasectomy or non-scalpel vasectomy (NSV)] use also increased from 7% in the early 1980s to around 10% in the 1990s but declined to 6% in the 2000s. Among LAPM, female sterilization was the dominant method and IUD use was low, currently at 0.6%. The currently prevalence of Implant is 1%. The recruitment of PM clients slowed down dramatically beginning in the early 1990s, when the annual number of PM users exiting from the reproductive ages was much larger than the new PM acceptors leading to a large deficit in the number that is required to maintain or increase the prevalence of PM. In contrast, pill use has increased dramatically from 3% in the 1980s to 28% in 2013. Injectables use also increased from below 5% in the early 1990s to 10% in the 2000s and continues to increase. Increase in pills and injectables helped the growth of CPR while PM lost its popularity.



Sources: NIPORT 2013; NIPORT 2014.

Trend of demand for LAPM

Table 1 shows that intention of women for using LAPM has been historically low and it has not increased in recent years. A maximum of 5% of CMWRA report that they (or their husbands for

¹ ‘Client compensation’ includes reimbursement to cover client’s wage loss, transport and food costs; and ‘provider fee’ includes payments for additional skill and time required by the service providers for LAPM procedures.

NSV) want to use one of the LAPMs in future. Strikingly, there is not much difference in the intention of LAPM use between younger and older women. The demand for LAPM remained almost unchanged over three decades.

Method	1994		2007		2011	
	15-49	25-29	30-49	15-29	30-49	
Oral pills	47.0	44.1	41.3	50.4	50.9	
Injectables	20.4	14.6	16.1	19.7	18.2	
Condoms	2.5	2.2	2.6	3.7	4.8	
IUD/Implants	2.0	0.7	0.7	1.3	1.0	
Sterilization	3.1	2.2	3.2	2.4	4.0	
Traditional	4.0	1.2	4.1	1.3	4.6	
Unsure	21.0	35.1	32.0	21.2	16.7	
Total	100.0	100.0	100.0	100.0	100.0	

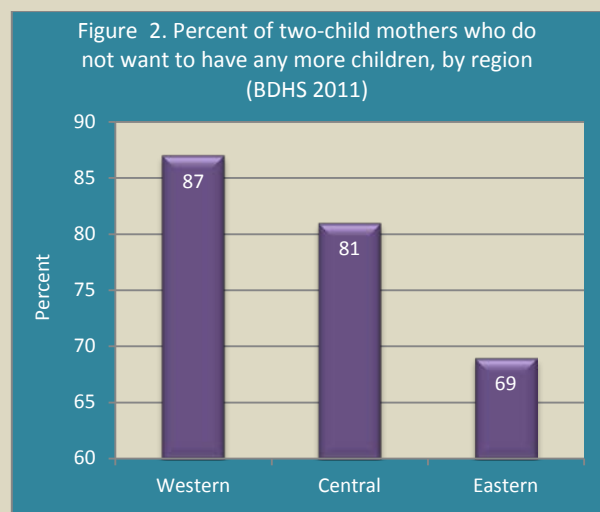
Note: Sterilization includes NSV and tubectomy.
Sources: Mitra et al. 1994, NIPORT 2009, NIPORT 2013

Regional pattern of health and family planning (FP) indicators in Bangladesh

Bangladesh has shown a distinct regional variation of demand for and utilization of health and FP services. The health and FP indicators, by and large, are worst in the eastern region (Chittagong and Sylhet Divisions) that has systematically remained disadvantaged in gaining programmatic strength as well as overcoming the socio-cultural barriers to health and FP in general and LAPM in particular. The people in this region have conservative outlook and traditional beliefs in the context of health and FP behavior. The western region (Khulna, Rajshahi, and Rangpur Divisions) has been the champion in terms of health and FP behavior.

The western region has the strongest intensity for fertility limitation, followed by the central and eastern. Figure 2 shows that 87%, 81%, and 69% of women who have two living children do not want to have any more children in future in the western, central, and eastern region, respectively. Accordingly, the likelihood of LAPM use was markedly higher in the western than other

regions [1.42 (9.7%/6.9%) and 1.37 (9.7%/6.9%) times higher than the eastern and central region, respectively] (Table 2).



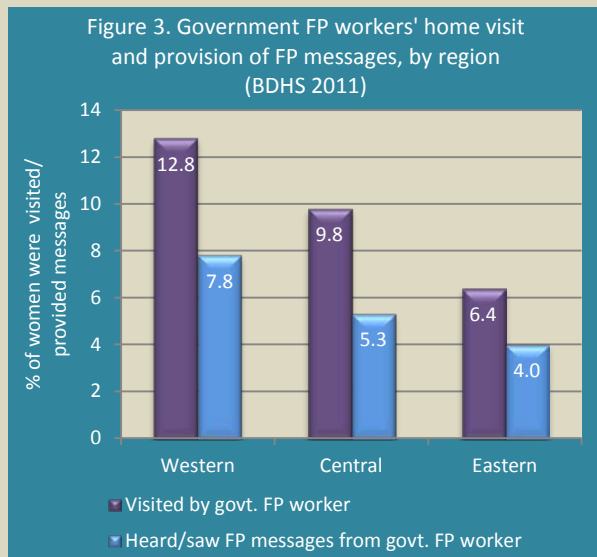
Source: NIPORT 2013

The FP programs are also relatively stronger in the western region compared to those in other regions of the country. For example, Figure 3 shows that FP field workers' contact with women at homes (in the past six months) was about 13% in the western region compared to only 6% in the eastern region, meaning that women in the former region have two times higher chance of being contacted by government FP worker than those in the latter. Similarly women's chance of receiving messages from FP field worker (in the last month) is about two times higher in the western region than the eastern region (7.8% vs. 4.0%). The Central region (Barisal and Dhaka Divisions) is in between.

Table 2. Use of LAPM and other contraceptive methods, by region, 2011

Region	% of CMWRA using contraceptives		MR or abortions per 100 live births (2010)
	LAPM	Other methods	
Western	9.7	58.0	51
Central	7.1	54.5	36
Eastern	6.9	43.0	20

Note: Western: Khulna, Rajshahi, and Rangpur; Central: Barisal and Dhaka; Eastern: Chittagong and Sylhet
Sources: NIPORT 2013



Source: NIPORT 2013

LAPM demand and use: associated factors

There are some fundamental reasons behind the low demand for and use of LAPM in Bangladesh. The supply-side reasons are associated with the public-sector program weakness and demand-side ones are associated with socio-cultural barriers. It should be noted that 80% of LAPM are provided through the public sector (NIPORT 2013), although there has been a recent policy change of expanding such services through the private sector, which is yet to be put in practice. The program weakness results in poor infrastructure, poor physical-quality of services and quality of care, inadequacy of key service providers, and others. There are reports of poor conditions of physical quality of infrastructure and equipment and service-provider presence, and thus services at the Upazilla and Union levels where LAPM are provided are of poor quality (Chowdhury and Hammer 2004; Schuler et al 1998). In the year 2011-12, over 40% of MO-MCH positions were vacant (MOHFW 2012a) while MO-MCHs are the lone provider of implants and tubectomy and NSV for an Upazilla. Moreover, over one-fifth (22%) of MO-MCHs were found absent from their regular duties in 2011 (MOHFW 2012b). The client-provider interactions are poor in

the public-sector facilities (Schuler et al. 1998; 2002). The side effects and complications of LAPM acceptors are hardly addressed (Mahbub-E-Alam 2009).

Women's intention for using LAPM has been historically low ($\leq 5\%$) and it has remained almost unchanged over three decades.

The major demand-side issues are (a) stigma among affluent and educated couples against tubectomy and NSV as they are perceived as "poor men's methods," (b) NSV is perceived as an unsuitable method primarily because of lack of knowledge of physiological processes of the procedure, (c) religiously inclined couples' reluctance of considering the permanent methods as a method of fertility limitation, and (d) perceived and observed side effects or complications of IUD and implants (Mahbub-E-Alam 2009).

There is a multiplicity effect of low demand and program weakness in the eastern region. In supply side, the eastern region is characterized by general program weakness, e.g., high vacancy and absenteeism rate of MO-MCHs and UFPOs and less-developed and poorly-maintained infrastructure at the Upazilla and below (MOHFW 2012b). These are keys to accessibility to and quality of care of LAPM. In demand side, the eastern region is characterized by higher desired family size (NIPORT 2013) and thus low demand for fertility limitation (Figure 3) associated with peoples' conservative outlook and greater reliance on traditional beliefs. Under this situation overall contraceptive demand is likely to be fragile, i.e., the intensity of demand for LAPM is likely to be low; couples may not be that determined to adopt a permanent method. In contrast, a woman may accept pill or injectables with an understanding that she can drop it anytime she wants if situation does not permit. Thus, under this circumstance, demand for LAPM is likely to be low.

Initiatives on LAPM service improvement

DGFP, NGOs, and development partners remain concerned about the lack of growth of LAPM and have continually encouraged efforts to develop innovative interventions to increase LAPM. USAID awarded a sizeable program, Mayer Hashi (MH), to EngenderHealth to improve access to and quality of LAPM services and selective services on maternal health. MH covered 21 of 64 districts during 2009-2013 to address this concern. MH is primarily a supply-side intervention project but has facilitated the government initiative of policy changes including institutional expansion of LAPM service provision through the providers of the Directorate General of Health Services (DGHS) and private sector. MH has trained providers from DGHS and continues training to private-sector providers. There is an MOU between DGFP and Marie Stopes International (MSI) to use MSI's highly skilled and experienced service providers in providing tubectomy and NSV mainly through camps.



Source: https://www.healthtap.com/user_questions/620983-does-atarax-25-mg-decrease-the-effectiveness-of-nexplanon; downloaded at 11:30 am 15 July 2014

MH project evaluation findings

In evaluating the impact of MH project we have uncovered certain programmatic characteristics that could be intervened to improve the use of LAPM (Rahman et al. 2014). Table 3 puts together some indicators that help to recognize a pattern of association between the change of LAPM over time and programmatic characteristics.

Two distinct characteristics emerge: program strength and regional variation. The program strength includes (a) low vacancies of MO-MCH and UFPO, (b) high level of client-provider contact, and (c) high level of LAPM information dissemination. The indicators, by and large, are worst in the eastern region; south-central is in between, but they are programmatically weaker than those in the north-central region, measured by most indicators. South-central and eastern regions are similar in terms of some program indicators.

The program strength includes (a) low vacancies of MO-MCH and UFPO, (b) high level of client-provider contact, and (c) high level of LAPM information dissemination.

Discussion

The western region is the ripe place to focus services on LAPM because of the couple's demand for low fertility, strong intensity of fertility limitation, high use of contraception, and greater utilization of health services (NIPORT 2013). As shown above, women in the western region have 1.26 times (87%/69%) higher likelihood of desire for family limitation than the eastern region. Also, the likelihood of LAPM use was markedly higher in the western than other regions (Table 2). It could be argued that the high-performing region does not need an emphasis on FP programs anymore because contraceptive is already high and fertility low, at replacement level or below.

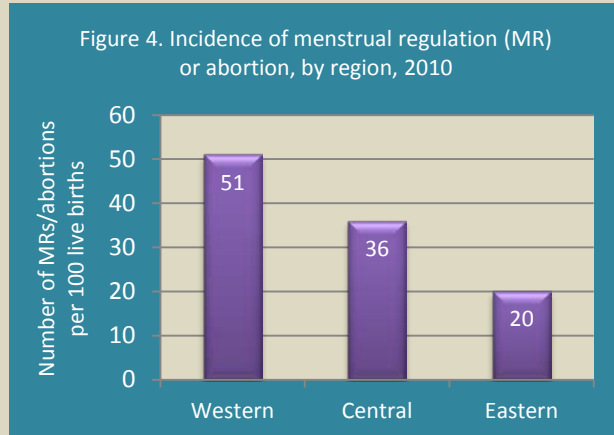
In 2010, about half of all MRs/abortions as well as half of abortion complications were from the western region of the country while the western region's share of live births was only 31%. The immediate priority for LAPM service improvement should be in the western region.

Table 3. Indicators capturing programmatic and accessibility aspects, measured in 2013, and change in method use between 2010 and 2013

Region	% vacancy of UFPO	% vacancy of MO-MCH	% women visited by FP worker	% women sought health/FP care from facilities	% women heard, saw, or read about LAPM from any source	Percentage points increase in LAPM use [2013 vs. 2010]	% points increase in other method use [2013 vs. 2010]
Eastern	36	56	13	41	38	1.5	-0.1
South-central	47	38	12	49	37	3.5	-4.3
North-central	10	19	23	55	50	3.9	0.9

Eastern: Comilla, Cox's Bazar, Moulvibazar, and Sunamganj; *South-central:* Barisal and Patuakhali; and *North-central:* Sylhet, Kishoreganj, and Mymensingh. Source: Rahman et al. 2014.

However, focusing services on LAPM in the low-fertility region would lead to a more effective contraceptive method mix leading to reduced incidence of unintended pregnancy and MR/abortion. Figure 4 shows that there were 51 MRs or abortions per 100 live births in the western region compared to only 20 in the eastern and 36 in the central region in 2010. In the same year, about half of all MRs/abortions as well as half of abortion complications were from the western region of the country (Singh et al. 2012). (The western region's share of live births was only 31%



in that year). One important reason for high incidence of MR or abortion is the use-failure of pills, condoms, or traditional methods, which constitute 69% of methods used by couples (NIPORT 2013), and which have high use-failure (Bairagi and Rahman 1996; NIPORT 2013). Another reason is the high discontinuation of pills, injectables, and condoms (NIPORT 2013). Many women, after method discontinuation, experience unintended pregnancy while they wait to start a

different method or return to the same method (Razzaque et al. 2014). About one in five births in the 5 years before the survey were preceded by contraceptive failure or discontinuation for reasons other than wanting to get pregnant and about two in three births following these discontinuations were reported as unintended (Curtis et al. 2011). Increased use of LAPM in Bangladesh in general and in low-fertility region in particular can reduce the burden of MR and abortion. The immediate priority for LAPM service improvement should be in the western region.



Photograph: Courtesy of EngenderHealth

Recommendations

Based on our systematic review and the findings of the MH evaluation, we make the following program recommendations:

- The lack of increase in LAPM in program districts seems to be associated with the vacancy of MO-MCHs; this situation is unlikely to improve in

near future. The following may be the alternative approaches of delivery of LAPM in this context:

- The Upazilla-level RMOs and obstetrician-gynecology consultants who have been trained on LAPM by MH project should be encouraged to run monthly 'special one-day session' on implants, tubectomy, and NSV at the Upazilla Health Complexes. The UHFPO should facilitate this and the UFPO should instruct her/his community-level providers namely FPIs, FWVs, and FWAs to refer clients to the monthly session organized by RMOs or obstetrician-gynecology consultants.

The Upazilla-level Residential Medical Officers (RMO) and obstetrician-gynecology consultants should run monthly 'one-day session' on implants, tubectomy, and NSV. Invite service providers from Marie Stopes International (MSI) to provide LAPM through 'day-long' sessions.

- The MO-MCHs and UFPOs should proactively take advantage of the existing MOU between DGFP and Marie Stopes International (MSI) and invite the highly skilled and experienced LAPM service providers from MSI to run LAPM 'day-long session' at public or private health facilities regularly. Other similar organizations should be encouraged to organize such sessions with their highly skilled LAPM providers. The UFPO should ensure client referral to such sessions through the community-level providers.

Private-sector provision of LAPM should be seriously pursued and accelerated. It is necessary to revise the 'client compensation and provider fee' system to make privatization to work.

- Private-sector provision of LAPM should be seriously pursued and accelerated. MH project has already trained private providers. RMOs, obstetrician-gynecology consultants, or other

specialists who do private practice should be encouraged to provide LAPM through private-sector facilities. The managers should instruct community-level providers to refer clients to private-sector facilities. The private sector-LAPM provision can attract clients from higher socioeconomic groups and thus minimize social stigma associated with LAPM.

- The existing 'client compensation and provider fee' system, with no clear guidance for the private sector, may be a barrier to privatization of LAPM delivery; it is necessary to revise the system to make privatization to work. A demonstration project, by the Mayer Hashi follow-on program or other agency, can explore ways to develop an efficient privatization mechanism.

- There is strong potential for an innovative mass media campaign to help generate demand for LAPM. Investment should be made to develop appropriate BCC approaches and modalities.

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- The eastern region of the country (Chittagong and Sylhet Divisions) should receive immediate programmatic emphasis on the improvement of short-acting methods namely pills, injectables, and condoms; delivery of these methods require minimal infrastructure and the methods can be relatively easily popularized among people with traditional beliefs common in that region. This is expected to lead to rapid increase in CPR in that region, a goal of HPNSDP.

Chittagong and Sylhet Divisions should receive immediate programmatic emphasis on the improvement of pills, injectables, and condoms.

Khulna, Rajshahi, and Rangpur Divisions with high incidence of MR/abortion should receive priority on LAPM service delivery.

- The western region (Khulna, Rajshahi, and Rangpur Divisions) with low demand for fertility, strong intensity for fertility limitation, and high incidence of MR/abortion should receive priority on LAPM service delivery. This is expected to lead to improved contraceptive method mix leading to reduced rate of unintended pregnancy associated with method failure and early discontinuation of short-acting methods which are common in the western region. The high rate of abortion and associated high hospital caseload of abortion complications are a burden to the health systems of Bangladesh. Increased LAPM use can help couples achieve their desired family size and reduce the burden of MR/abortion.

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Suggested citation for this brief:

MEASURE Evaluation. *The Future of Long-acting and Permanent Methods of Contraception in Bangladesh*. Chapel Hill, NC: MEASURE Evaluation; 2014.

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