A Potential Contraceptive Method Mix for the Ethiopian Family Planning Program

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Abstract

In many sub-Saharan African countries, there is considerable unmet need for contraceptives, resulting in continued high fertility. One reason for unmet need is the lack of proper understanding of couples' contraceptive method choice. Family planning program managers often prefer a contraceptive method mix skewed towards long-acting and permanent methods. This is especially the case in resource-poor countries, to maximize cost-effectiveness. In this paper, I make a worldwide review of contraceptive method mixes, review Ethiopian demographic situation and health service delivery programs, and analyze contraceptive data. It is found that there is high demand for contraceptives but the demand is still fragile; demand is higher for spacing than limiting; and health infrastructure cannot support effective delivery of long-acting methods. A strategy emphasizing delivery of short-acting methods, especially pills, would be most appropriate and cost-effective for substantial increase in contraceptive use and thus in reduction of unmet need for contraceptives in Ethiopia.

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In this paper, a recommendation on the future contraceptive method mix for Ethiopia is made after reviewing women's demand for contraception and the capacity of health and family planning programs. A worldwide review of contraceptive method mixes suggests that there is not an ideal method mix required to effectively reduce fertility, even to below the replacement level.

Contraceptive Method Mix, Worldwide

Couples in modern societies want to have two children, sometimes less than two. They typically employ short-acting birth control methods like condoms and pills to delay their first birth after marriage, and to space between the first and second births, and then adopt permanent methods thereafter. For example, the contraceptive prevalence rate (CPR) in Australia, Canada, UK, and USA is between 75% and 84%; 30-46% of couples use permanent methods, less than 1% to 6% use IUDs, 14-22% use pills, and 4-18% use condoms to meet their birth spacing and limiting needs (Table 1). This typical contraceptive method mix is convenient because, after achieving the desired family size, most couples get sterilized, freeing themselves from the need to take a pill at the same time every day or using a condom in every act of intercourse. Out of any four contraceptive users, two couples have permanent methods, one uses condoms, and the other uses pills. This mix can be termed as a reasonably balanced contraceptive method mix.

Family planning (FP) program managers often prefer a contraceptive method mix skewed towards long-acting and permanent methods (LAPM). This is especially the case in resource-poor countries, to maximize cost-effectiveness. A permanent method, if accepted after attainment of a woman's desired family size, can satisfy her contraceptive needs for the rest of her reproductive life. In most developing countries, women typically achieve their desired family by age 25, age 30 at the latest. A permanent method, therefore, frees a woman from the need to secure short-acting contraceptives and frees the family planning program from serving her for 20 to 25 years. Long-acting methods like IUD and implants protect women from pregnancy for 3 to 12 years, respectively. Use of those methods frees a woman from using injectables every three months, daily pills, or condoms with every act of intercourse during the intended birth intervals. LAPMs are highly effective with minimal side effects, except for rarely observed regret of permanent method adoption. If there were a country where couples relied primarily on these long-acting and permanent methods, the FP program in that country would not only be highly effective in spacing and limiting births but would also be highly efficient in terms of management and financing because, requiring fewer providers and a lesser quantity of contraceptive supplies than a program relying on short-acting methods like condoms,[1] pills, and injectables. In developing countries, condoms, pills, and injectables are known to have high discontinuation rates, mainly due to perceived side effects, and are thus less effective. Supply-related discontinuation of short-acting methods is also observed in

[1] Condoms provide dual protection against pregnancy and STI/HIV and thus deserve the attention of program managers for promotion. In this paper, however, the condom's role only in the prevention of pregnancy is considered.

some countries where FP programs have yet to achieve medium to high levels of program strength.

The reality is very different from the above scenario for FP programs in developing countries. An FP program can be successful if quality LAPM, requiring a strong health infrastructure and trained providers, is available. Yet, a resource poor country cannot usually afford or is not in a position to develop such a program strong enough to provide quality LAPM services. We will see below that many successful FP programs have adopted contraceptive method-mix strategies that are markedly different from the ideal scenario as indicated above.

A number of countries with large population and high population pressure have successfully increased their contraceptive prevalence through aggressive FP programs in which LAPM have been an area of focus. China, for example, provides mainly permanent methods and IUDs; 41% and 36% of couples use permanent methods and IUD, respectively (Table 1). This means that roughly of two contraceptive users, one uses permanent method and the other uses IUD. China, however, is criticized for targeting workers and coercing couples to choose small families and permanent contraceptive methods. India is another country whose FP program generally provides permanent methods; 36% of couples use permanent methods, where CPR is 48%. This implies that six of eight contraceptive users rely on permanent methods. India also is known for its FP program's aggressiveness in delivering permanent methods; the political party in power lost an election in the late 1970s for their coercive male sterilization program.

Comparatively, contraceptive method mix in Brazil and Mexico is predominantly LAPM. In Brazil, 43% of couples use permanent methods and 21% use pills, while CPR is 77%. This means that six and three of ten users are permanent method and pill users, respectively. In Mexico, 32% couples are sterilized, 14% use IUDs, 7% use pills, and only 3% use injectables. This means that five and two of ten users rely on permanent methods[2] and IUDs, respectively.

A skewed method-mix pattern seems to appear for these countries -- only one method, namely sterilization (more specifically, female sterilization), tends to predominate. The next preferred method of preference is either IUDs or pills. Elsewhere, there are more examples of single-method predominance; Japanese couples use overwhelmingly one method, the condom (42% condom use). Egyptian couples rely predominantly on IUDs: 37% women wear an IUD while the country CPR is 60% (Table 1). One common programmatic feature of the countries indicated above is their reasonably to very strong health and FP infrastructure and quality services. These programs expend significant resources over many years to develop such infrastructure and improve quality.

[2] It should be noted that "permanent methods" mostly refers to female sterilization, as the contribution of male sterilization is small, except for countries categorized as "other countries." In Brazil, for example, 40% and 3% of women and men are sterilized, thus male share is only about 7%. In Australia, Canada, and the USA, the share of male sterilization is between 25% and 35%. In the UK, however, more men than women are sterilized (43% women and 57% men).

Another distinct pattern of contraceptive method mix exists in African and Asian countries and European developed countries. Here, couples mostly rely on short-acting methods, namely pills and injectables. In some countries pills or injectables may predominate, and in others both are heavily used. Injectables have been popular in Indonesia, South Africa, and Kenya; pills being the next most popular method in all these countries. In Indonesia, one in three women use injectables and one in seven use pills; this implies that half of the 26 million contraceptive users receive an injectable shot every three months in Indonesia. Similarly, one in four and one in ten women in South Africa use injectables and pills, respectively (56% CPR) (Table 1). In Kenya, two and one in five of contraceptive users rely on injectables and pills, respectively, where CPR is 40%.

Pills are the main method of contraception in Zimbabwe, Morocco, and Bangladesh. About 72% of contraceptive users (CPR approximately 60%) rely on pills in Zimbabwe. In Morocco, two thirds of contraceptive users (CPR 63%) take a contraceptive pill every day (Table 1). Pills are the method of every other user in Bangladesh, where CPR is 58%. Pills also prevail in Philippines and Iran. All these countries have achieved a low level of fertility and are expected to achieve the replacement-level fertility rate in a decade or so.

Pills are the predominant methods of contraception in Austria, Belgium, France, Germany, and the Netherlands (Table 1). Germany has the highest use of pills in the world as 59% of women take a contraceptive pill every day. About 80% of 75% contraceptive users in Germany, 63% of 78% users in the Netherlands, 61% of 51% users in Austria, and 60% of 78% users in Belgium rely on the daily pills as their method of contraception. All these countries have below replacement-level fertility. It may be noted here also that all these countries except for Austria, where CPR is low, have the lowest level of abortion in the world.

Experiences in the above countries suggest that low level of fertility has been achieved in both developed and developing nations through varying types of contraceptive method mix. A balanced method mix with permanent and short-acting methods, predominance of permanent method along with a second long-acting or short-acting method, predominance of two short-acting methods, and even predominance of a single short-acting method, all can effectively bring fertility to a low level. FP programs typically attempt to develop an effective, but simple and affordable, contraceptive method mix for their couples but adapt to a method-mix strategy that most suits their client needs and preference.[3] Given the above experiences, let us explore a reasonably appropriate contraceptive method-mix strategy for Ethiopia or similar countries.

[3] There are examples of countries that offer only a limited choice of contraceptive methods, and couples cannot easily access the methods of their choice.

The Case of Ethiopia

Fertility is high in Ethiopia by any standard, with a high population growth rate (2.5%). An Ethiopian woman, on an average, gives births to five and a half children, according to the 2005 EDHS. This rate has declined from about seven children in the 1990s. The innovative interventions of the RH/FP Project, mainly through the community-based reproductive health (CBRH) approach, have been extremely successful in bringing the total wanted fertility rate (TWFR) to only four children per woman. This demand for a relatively small family size is unique in Ethiopia, compared to that in many Sub-Saharan African countries with similar or even greater level of socioeconomic development. Every other woman in Ethiopia either does not want anymore children or wants to wait for at least two years to have another child. This implies that just 50% women do have demand for spacing or limiting fertility. Remarkable contraceptive demand has been generated by the RH/FP project. CPR is only 15%, though it tripled in the last 10 years, leading to a 35% unmet contraceptive need (UCN). This means that more than one in three women of reproductive ages in Ethiopia does not have access to desired contraception. The primary goal for the national FP program should be to design affordable and easily replicable interventions that can immediately meet the high unmet need, leading to a rapid increase in contraceptive prevalence.

Accessibility to health and family planning services has remained extremely poor. A Health Center (HC) staffed with 4-5 nurses and health officers provides preventive and curative health care and family planning services for a population of 100,000, including 20,000 couples. Quality of services is also poor, associated with the lack of resources including adequate facilities, trained providers, equipment, and contraceptive supplies. Injectables are available at the HC level; women using injectables have to travel for hours every three months to obtain the method.[4] In the last few years, nurses have been trained on Implants (Norplant, Jadell, and Implanon) and IUD through the Pathfinder International/Ethiopia RH/FP Project. Implant use has increased sharply in recent years. IUD has never been popular and use of it remained very low. Cultural norms lead women to avoid exposing their private part of the body to a provider for IUD insertion or for the examination required prior to insertion of the method. Such client attitude toward required examination for insertion of IUD is not uncommon across cultures. A recent qualitative study in Scotland suggests that women disliked any method which involves an invasive procedure and/or vaginal examination (Glasier et al. 2008). Providers in Ethiopia also tend to avoid pelvic examination and insertion. Implants, conversely, are not subject to these barriers and several clients can be served in a room, or even at a camp, simultaneously without jeopardizing client privacy.

With regards to infrastructure, health facilities are not yet ready to provide male or female sterilization on a large scale in Ethiopia. Health facilities, including operation theaters and associated infection prevention procedures, equipment, supplies, and, most importantly, trained medical professionals – are not sufficient to effectively support a

[4] As we will see below, the Health Extension Program (HEP) has just began to provide injectables through the Health Extension Workers (HEWs) at the Health Posts (HPs) or at the community, which will reduce women's travel time required to obtain for injectables.

viable sterilization program. Turnover of trained medical personnel in low-resource countries is a common problem, present in Ethiopia.

There is a high demand for fertility limitation. According to DHS 2005, 22% of women have demand for limiting fertility and 27% have demand for spacing their births (Table 2). Unmet need for both spacing and limiting of births is 20% and 14%, respectively. However, less than 1% of women said that they would like to have sterilization. The most popular method of preference for future use was injectables (72%), followed by pills (19%). Only 2% and 0.3% of women said that they would like to use implants and IUD, respectively, in the future. Thus, demand for LAPM has to be generated.

In terms of method choice, injectables have been the most popular method in Ethiopia, where two thirds of 15% contraceptive method users rely on them. Clients find the method easy to practice because a provider administers it. Only one in five users employs pills. Some clients may find it initially a little cumbersome to take the pill every morning or at bed time every night. There may be provider bias against pills, as many providers think that rural women with no or little literacy may be unable to use a pill effectively every day. Mainly because of this, providers may recommend injectables. Side effects and users' health concerns associated with all these three methods – pills, injectables, and implants – are common. According to DHS, about 30% of injectable and 37% of pill discontinuers cited side effects and health concerns as reasons for discontinuation. Accessibility is more of an issue for injectables than pills, as the former has to be delivered by a provider while the latter can be obtained from community workers or volunteers, drug stores, or even shops if pills where available. Fortunately, Ethiopia now has over 30,000 Health Extension Workers (HEW)[5] who are posted at the Health Post (HP) to serve about 5,000 people, including 1,000 couples in roughly one village or *kebele*. They are trained for providing injectables in addition to their (a) community mobilization work on hygiene, sanitation, and environment, (b) preventive services on maternal health, child health, nutrition, immunization, and others, and (c) family planning edducation and services. Both pills and injectables have high rates of discontinuation. This is common in most developing countries, especially at the growing stage of FP programs.

Probable Short-term Strategy: A Community Approach

Ethiopia's FP program should aim for a method mix that will emphasize short-acting methods, for several reasons. First, the country has poor health infrastructure, including quality of services and inadequate trained health personnel, and therefore cannot fulfill the need for FP services that are provider-dependent. As indicated above, the program is not yet ready to provide permanent methods, although desirable. Among the LAPMs, IUD is less likely to be a popular method in the near future, or even ever. Implants have a bright future but there are factors that may limit Implant expansion. More training of providers, both on insertion and removal including effective counseling, is required. Routine refresher training, monitoring, and technical feedback are crucial for a sustainable program. This is a resource challenge. It has already been noticed that

[5] About 7,000 additional HEWs will be in place by early 2008.

Implant removal is an emerging concern. A recent survey indicates a demand for Implant removal; some users reported that they would consider removal of their method before their prescribed date of removal. Interventions and plans are underway to further train providers for pre- and post-method counseling and removal of the method. The Indonesian FP programs delivered implants through mass mobilization and demonstration campaigns during the late 1980s and early 1990s. Implants became quite popular and its use increased to as high as 6% in 1997. However it declined to 4% in 2003. Studies in Indonesia and other countries concluded that quality of care was essential to increase the use of implants and its sustenance, especially good counseling and information about implants, training on insertion and removal, strong supervision, and enforced guidelines on women's right to method removed on demand. More investments are necessary for Ethiopian programs to reach a level of quality required for a sustainable implants delivery system.

Second, although Ethiopian women have a high level of demand for spacing and limiting births, the demand is still fragile. In a society where the FP concept has just taken root, superstition and rumor make a woman who has recently accepted a method vulnerable to discontinuation. A husband's or senior family member's objection to contraceptive use also presents psychological pressure. What typically happens in this situation is that the user discontinues the method, met by relief. Pills and injectables are compatible to this situation.

Over several years of a good FP program, contraceptive use gradually becomes widespread, prevalence of birth spacing and limitation become stronger, and women (or couples) continue to use a method in spite of social and other barriers. LAPMs then become methods of choice. And short-acting methods are more effectively used even with side effects like headache or dizziness (associated with the use of pills or injectables). Taking a pill every day becomes a very routine activity even for a woman with low or no literacy.

Third, Ethiopia's relatively high childhood mortality is related to fragile demand for fertility limitation. In a high mortality environment, parents who want to limit their fertility are more likely to adopt short-term and birth spacing strategies. This is because parents are likely to think, if a child dies, they will replace the dead child by suspending contraceptive use and having another child. Short-acting methods are compatible with this replacement strategy. Although childhood mortality is declining, one in 8 children dies before the fifth birthday in Ethiopia, compared to one in 11 in Bangladesh and one in 24 in Egypt. In this sense, short-acting contraceptive methods probably better suit their family-building strategies. In fact, Table 2 shows that 20% women expressed their unmet need for spacing of births, compared to 14% unmet need for limiting births.

Fourth, pills and injectables can be delivered by the CBRH agents (CBRHAs) and HEWs at the community level with minimal support from higher echelons, contraceptive supply permitting. The two HEWs per *kebele,* with an average of 1,000 women of reproductive age, will deliver pills and injectables along with other responsibilities mentioned below.

There are also, on an average, two CBRHAs per *kebele* who provide pill and condom supplies and information.

Pills, more so than injectables, are advantageous for increasing the accessibility of contraceptive methods. Pills can be delivered to homes by community volunteers like CBRHAs or HEWs. Users can procure pills from drug stores or kiosks or even from churches or community centers arrangements permit. Pill distribution can be independent of the public health service delivery system. This could be shifted to the private sectors with public subsidization. A system of training and follow up of CBRHAs, HEWs, and drug retailers (pharmacists or pharmacy technicians or health assistants) will have to be developed for pill distribution, which should be feasible. Injectables distribution is provider-dependent and more expensive than pill distribution. For obvious reasons, use-effectiveness of pills is less than that of injectables.

Although the current plan is to provide injectables through HEWs at HPs, it may not be possible for two HEWs to provide FP services to 1,000 women, given that they have a large number of tasks to accomplish. As indicated above, HEWs will mobilize and educate their community to improve sanitation, water supply, household environment, personal hygiene, food hygiene and security, insect and rodent control, and waste disposal. They will provide information and services on family planning, antenatal and postnatal care, neonatal care, child immunization, nutrition, and basic treatments for malaria, diarrhea, and respiratory illnesses. They are also expected to attend deliveries at clients' home and/or HP. In addition, they will also provide services on adolescent reproductive health, HIV/AIDS, TB, and first aid and provide information on traditional harmful practices. Moreover, there is a high demand from the community for curative health care services to be obtained from the HEWs. With these workloads, HEWs may not be able to provide sufficient injectables services.

Community health volunteers like CBRHAs are promoting birth spacing and limitation in the community. They refer clients for injectables and LAPM to HPs and HCs. They also supply pills and condoms, but emphasize injectables and LAPM. Only community-based distribution of pills can effectively and markedly reduce the existing unmet contraceptive need. To promote contraceptive use, CBRHAs may begin to supply 3-month allocations of pills to women who want to wait to have a child later or to those who do not want anymore children but are not using any other contraceptive methods. This should be done during home visits or other outreach activities. CBRHAs should also promote injectables and LAPM, but new contraceptive users may be given pills as an "introductory" method. Such new adopters should be assured of continuum of care by way of referral for other FP methods of their choice. Many new acceptors of pills will find it usable and an effective way of controlling their reproductive lives. Women will soon realize that spacing and limitation of births is within their means.

There is an opportunity for Ethiopia to strengthen condom distribution through a community approach using resources available through PEPFAR. Condom use can provide dual protection from pregnancy and STI and HIV/AIDS. As a family planning method condom can fulfill the need for spacing of births although effectiveness of

condom is low (15% failure rate of male condom in typical use). In contrast, it can significantly reduce the transmission of STI and HIV/AIDS. An innovative approach can promote condom use by capitalizing all the opportunities like PEPFAR resources, men's involvement, spacing of births, and prevention of STI and HIV.

International experience suggests that appropriately designed community-based contraceptive delivery can dramatically increase contraceptive prevalence in a resource-poor setting. Some thirty years ago, Bangladesh and Ethiopia had comparable socioeconomic and health indicators – GNP, literacy, childhood mortality, and fertility. In Bangladesh, the national FP program, backed by a strong political will and generous development partner assistance, made some limited and unsustainable success of its long-acting methods, namely IUD and sterilizations. In a few years, a USAID-funded project showed that providing FP information and supplying pills and condoms at the doorstep significantly increases CPR. The subsequent USAID-funded extension project helped the government to replicate and scale up the doorstep service delivery in the national program during the mid-to-late 1980s. A subsequent increase in contraceptive use in the country was unprecedented. As shown in Table 1, current CPR is 58% with 26% pill use, 11% injectable use, only 6% permanent methods use, and less than 1% IUD use.[6] The Bangladesh FP program is known as a success story in the history of population development for the country's rapid fertility transition from over 6 births per woman to 2.7 births in about 25 years. In following decades, Bangladesh has done well in education, especially women's education, health, and some degree of economic development.

One motivator for providing FP services to women at their homes in Bangladesh was that women were secluded from the outer world by religious practice. Women in Bangladesh are discouraged from going outside the home, face strangers to seek health and other services. FP service availability at the doorstep is beneficial in meeting women's high level of unmet contraceptive need within the culture of women's remaining home.[7] The case of Ethiopia is different from the context of Bangladesh as Ethiopian women face no religious or cultural barrier in seeking services outside of their homes. In Ethiopia, pill distribution will be easier, simpler, and more feasible than that of injectables or other methods from service delivery point of view. Moreover, short-acting methods would better suit their needs and desires for short-acting methods.

There is a price to pay for short-acting methods. As indicated above, they have high discontinuation rates. Pills also have disconcertingly low use-effectiveness. Typically, about 8% of women may conceive during pill use, a high rate of failure. However, this rate generally holds for the first year of use, studies show that failure rates significantly decline during the second and later years of use of pills. Injectables are better in that there

[6] Injectable contraceptives were added to the national program in the early 1990s and are administered by nurses from health facilities and/or satellite clinics. Family planning workers below the nurse-level are not allowed to provide injectables to clients.

[7] The doorstep-based service delivery of contraception was shifted to facility-based services in the USAID-funded NGO Service Delivery Program areas the late 1990s. There was no decline in CPR in these areas. Women continued to use pills by procuring them from drug stores, pharmacies, and the homes of community health workers who sell pills at their homes.

may not be use-failure, but there may be supply-related involuntary injectable drop-outs. All this has consequences on program effectiveness and thus excess fertility and abortion. One outlook holds that, given the level of CPR, fertility and abortion rates in Bangladesh could have been lower than its present levels if the contraceptive method mix favored longer-acting methods. In Ethiopia's case, it is important to fulfill the unmet need, which is about 35%, yielding a rapid and sustainable uptake of contraceptive use. Eventually, with the advancement of the Ethiopian Health Program and with the government's growing commitment to improved health services, a better, more efficient and effective contraceptive method mix will evolve.

One most important consideration in favor of the promotion of pills in Ethiopia should be underscored, which is the comparative costs of contraceptive methods. Table 3 shows costs of methods per couple year of protection. It may be noted that we report only the price of the products, and service delivery costs are not included here. Pills can be delivered through the private sector with minimal training and supervision of shopkeepers and pharmacists. In contrast, IUD, injectables, and implants have to be delivered through trained providers which require training, monitoring, and supervision. The program needs to maintain a large workforce for providing injectables to clients every three months. Therefore, the real costs of IUD, injectables, and implants will be much higher than it is reported in Table 3.

Table 3 shows that IUD is the most cost-effective method, but as mentioned above it is not popular in Ethiopia. The next cost-effective method is the pill. Therefore, the promotion of pills as a short-acting and spacing method will double serve the purpose—it is popular among clients and it is less costly.

The proposed short-acting-methods-oriented approach can dramatically increase contraceptive use and introduce women to the culture of contraception. Spacing and limitation of births will be a common topic of community discussion and thus increased use of contraception. The Ethiopian contraceptive method mix can be like those in South Africa, Morocco, Indonesia, or Bangladesh, where pills and injectables are major methods of choice. A pilot project can be undertaken in a few *Woredas* to understand how contraceptive use can be made widespread in Ethiopian rural communities through this approach.

References

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Table 1. Method Specific Contraceptive Prevalence Rate (per 100 couples), by Country

Countries	Contraceptive prevalence rate, by method*					
	All methods	Permanent (Female and male)	IUDs	Injectables and implants#	Pills	Condoms
Africa						
Ethiopia	15	<1	<1	10	3	<1
Egypt	60	0	37	9	9	1
Kenya	39	4	2	7	16	1
Morocco	63	3	5	2	40	2
South Africa	56	6	2	23	11	2
Asia						
Bangladesh	58	6	<1	11	26	4
China	84	41	36	<1	2	3
India	48	36	2	0	2	3
Indonesia	60	4	6	32	13	1
Iran	72	18	8	3	21	5
Thailand	72	24	3	18	23	2
Vietnam	79	6	38	<1	6	6
Latin America						
Brazil	77	43	1	1	21	4
Mexico	69	32	14	3	7	4
Peru	69	13	9	15	7	6
Europe						
Austria	51	<1	7	<1	37	7
France	75	8	20	0	36	5
Germany	75	1	6	<1	59	4
Netherlands	79	15	4	0	49	8
Other countries						
Australia	76	38	5	0	24	4
Canada	75	46	3	0	14	9
UK	84	30	6	3	22	18
USA	76	37	<1	2	16	14

Source: World Contraceptive Use 2005, available at www.unpopulation.org. This database is based on recently available rates.

*Traditional methods are not shown in the table. #Implants constitute a small fraction of this group of methods.

Table 2. Demand for contraception, unmet need and contraceptive use, by spacing and limiting, Ethiopia, 2005

	% of unmet need for contraception	% of met need or contraceptive use	% of demand for contraception
Spacing	20	7	27
Limiting	14	8	20
Total	34	15	49

Table 3. Cost of methods for one year of protection, Ethiopia

Methods	Number of products or procedure involved	Average expected duration of use of the method (years)	Cost (US $) per one year of protection in Ethiopia
IUD	1 procedure	5.00	0.31
Pill	13 cycles	0.08	2.93
Injectables	4 shots	0.25	4.00
Norplant	1 procedure	3.50	6.57
Jedelle	1 procedure	3.50	6.10
Implanon	1 procedure	3.00	9.67

Note: Duration of use of IUD and implants has been assumed to be less than their longevity. This is because many women drop from the methods much before method longevity. For example, even if an IUD can last for 10 years, half of users drop from the method even before 5 years. The actual use of the method is only for 5 years for IUD in this case.