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Benefits of Meeting the Contraceptive Needs of Ethiopian Women

The ability to practice contraception is essential to protecting Ethiopian women's health and enables them to plan the size and timing of their families. Yet low levels of contraceptive use have led to high levels of unintended pregnancy in Ethiopia, a problem for which women and society pay dearly—in women's lives, family well-being and public funds.

Many women and couples in Ethiopia do not have the knowledge, tools or assistance they need to maintain their reproductive health and have the number of children they desire. Consequently, many women have more children than they want or can care for. Others turn to induced abortion, which remains predominantly unsafe and clandestine in Ethiopia, despite its being legal under some conditions.[1]

By helping women and couples plan their families and have healthy babies, improved reproductive health care—including increased access to contraceptive services—would contribute directly to attaining three Millennium Development Goals (MDGs): reducing child mortality, improving maternal health and promoting women's empowerment and equality.[2] Improved contraceptive services would also make meeting three other MDGs—achieving universal primary education, ensuring environmental sustainability and combating HIV/AIDS—easier and more affordable.

This issue brief aims to help chart a course toward better health and family well-being by highlighting the cost savings and health benefits from improving contraceptive services. Building on prior work[3] and using national data to provide estimates for 2008 (see box, page 2), the brief describes current patterns of contraceptive use and need, as well as two hypothetical scenarios of increased contraceptive use, to quantify the net benefits to women and society that could result from helping women avoid pregnancies they do not want. We focus on the morbidity and mortality that can be averted and the financial resources that can be saved by preventing unintended pregnancy. Unless otherwise specified, all data presented are special calculations based on the sources listed in the methods box, using the methodology detailed in the Appendix at <http://www.guttmacher.org/pubs/appendices/IB-2010-1.pdf>.

Pregnancy and childbirth entail health risks for both women and newborns.

Pregnancy and birth can be life-threatening for both woman and child, especially without adequate prenatal and delivery care.[4] In the five years preced-

Key Points

- As of 2008, an estimated 41% of all pregnancies in Ethiopia were unintended. Unintended pregnancy is lowest in Somali (9%) and highest in Addis Ababa (72%), where motivation to have small families is strongest.
- More than seven in 10 women who want to avoid pregnancy either do not practice contraception or use a relatively ineffective traditional method. These women can be said to have an unmet need for modern contraception.
- Meeting just half of this unmet need would result in 754,000 fewer unintended pregnancies each year, leading to 178,000 fewer unsafe abortions and 3,300 fewer maternal deaths.
- If all unmet need for modern methods were satisfied, maternal mortality would drop by almost one-third from current levels, and unplanned births and unsafe abortions would decline by 89–92%.
- Investing in contraceptive commodities and services to fulfill all unmet need among women wanting to avoid pregnancy would result in a net annual savings of US$34 million (314 million Ethiopian birr) over what would otherwise be spent on medical costs associated with unintended pregnancies and their consequences.
- Expanding contraceptive services confers substantial benefits on women, their families and society. All stakeholders, including the Ethiopian government and the private sector, should increase their investment in modern contraceptive services. Particular attention should be paid to reducing inequalities in access.

Methods

The 2008 estimates in this report are projected from the most recent available data. Unless otherwise noted, the data were calculated using the following methods. An Appendix, containing sources and more methodological details, is available online at <http://www.guttmacher.org/pubs/appendices/IB-2010-1.pdf> or from the authors.

The numbers of women in each region, by marital status, desire to avoid pregnancy and contraceptive use in 2008, were estimated using the 2005 Ethiopia Demographic and Health Survey (EDHS) and regional estimates of the number of women aged 15–49 from the 2007 Ethiopian Population and Housing Census, and were projected forward to 2008.

The numbers of unintended pregnancies in 2008 under current contraceptive-use patterns and alternative scenarios were based on contraceptive use–failure rates and pregnancy rates for nonusers from the EDHS and other sources, adjusted to the estimated number of unintended pregnancies in each region in 2008.

Intention status of pregnancies and their outcomes for 2008 were estimated from regional data on the planning status of recent births from the 2005 EDHS, regional estimates of induced abortion rates in 2008 and estimates of the number of miscarriages.

Pregnancy-related deaths were estimated using national-level maternal mortality estimates provided by the World Health Organization (WHO) for 2005. Regional estimates of unsafe abortions for 2008 were provided by the Guttmacher Institute. Regional infant death rates were estimated from the 2005 EDHS.

National-level estimates for 2008 of pregnancy-related disability-adjusted life years (DALYs) among women and of DALYs among newborns were obtained from the 2004 revision of DALYs estimated by the WHO Global Burden of Disease project. This formed the basis for rates used to estimate pregnancy-related and newborn DALYs in 2008.

Costs of contraceptive services and maternal and newborn health care were estimated from basic cost elements. For each contraceptive method or health care intervention, we combined the costs of drugs, supplies and materials; labor and hospitalization; and program and system costs to arrive at a cost per user per year of protection against unintended pregnancy or per woman receiving pregnancy-related medical care (in 2008 U.S. dollars). Program and system costs, which refer to indirect costs such as overhead and capital expenditure, were taken from the United Nations Economic and Social Council. Direct costs of drugs, supplies, materials and labor used for family planning and mother and newborn health care interventions were taken from the United Nations Population Fund's Reproductive Health Costing Tool and from cost studies conducted in Ethiopia.

ing the 2005 Ethiopia Demographic and Health Survey (EDHS), just 12% of women made the recommended four prenatal care visits, and only 7% of births were attended by a trained health professional.*[5] The use of modern contraceptives enhances maternal and infant health by preventing high-risk births, such as those that are too closely spaced, those that occur among women younger than 18 or older than 35, and those that occur after a woman has already had three or more children.[6]

The first year of life is risky in Ethiopia: An estimated 235,000 infants die before their first birthday (80 per every 1,000 live births); nearly half of these deaths occur in the first month of life.[7] Since poor, rural and less-educated women face a host of cultural and infrastructural obstacles to care, their infants are far more likely to die before reaching age one than are those born to other women. For example, the mortality rate is twice as high among infants born to women without schooling than among those born to women with some secondary schooling (83 vs. 37 infant deaths per 1,000 live births, respectively).[8] One way to quantify poor health is to use disability-adjusted life years, or DALYs—a measure that expresses disease burden in terms of number of healthy years lost to illness and death. In 2008, complications suffered in the first month of life and their long-term consequences resulted in a projected loss of 4.2 million healthy years of life among Ethiopian newborns.

Maternal mortality is also high in Ethiopia. Estimates of the measure vary widely, but according to the World Health Organization (WHO), 720 Ethiopian women die annually from pregnancy- and delivery-related causes for every 100,000 live births.†[9] An estimated 21,300 Ethiopian women died from pregnancy-related causes in 2008; about 7,300 of these women had not wanted to become pregnant. Global research suggests that preventing unintended pregnancy has the potential to substantially lower maternal mortality.[10] Expanding contraceptive use is thus crucial to limiting women's exposure to the general risks inherent in pregnancy and childbearing and to enabling women avoid high-risk births, in particular.

Much maternal ill-health can be traced to unsafe, clandestine abortion, an outcome that can also be greatly reduced through the use of modern contraceptives. Although the provision of legal abortion services in health facilities has increased in recent years, there are still large gaps in coverage, especially in rural areas. Estimates suggest that only 27% of the 382,000 induced abortions that occurred in 2008 were legal.[1] Some 52,600 women were hospitalized for complications from unsafe induced abortion, but this number represents slightly fewer than one-quarter of all those who experienced complications requiring medical care (an estimated total of 222,000); the remaining three-quarters did not receive needed treatment. Apart from the toll they take on women's health, complications from induced abortions and other pregnancy-related problems keep women out of the workforce and away from their families, threatening their families'—and society's—well-being. In 2008, women in Ethiopia lost an estimated 1.5 million healthy years of life to problems related to pregnancy and childbirth; 600,000 of these DALYs were associated with pregnancies that women had not intended to have.

*According to the Ministry of Health, the proportion of deliveries assisted by a skilled health professional in 2008 was 20% (source: Ministry of Health, *Health and Health Related Indicators,* Addis Ababa: Planning and Programming Division, Ministry of Health, 2008). This discrepancy is likely due to differences in methodology; our estimate is based on EDHS data on deliveries attended by trained health professionals (defined as doctors, nurses and midwives only).

†The 2005 EDHS cites a maternal mortality ratio of 673 maternal deaths per 100,000 live births. We use the WHO estimate for uniformity with other projects in this series and because it has been adjusted for underreporting and misclassification of maternal deaths.

Table 1

Unmet Need and Unintended Pregnancy

Unmet need for modern contraception among Ethiopian women aged 15–49 who want to avoid pregnancy, intendedness of pregnancies and outcomes of unintended pregnancies, by region and wealth quintile, 2008

Region and wealth quintile	No. women aged 15–49 (000s)	Women who want to avoid pregnancy*				Pregnancies, by intendedness§				Outcomes of unintended pregnancies as percentages of all pregnancies**		
		No. (000s)	% using no method	% using a traditional method†	% with unmet need for modern method‡	No. (000s)	% intended	% unintended	Total	% ending in mistimed births††	% ending in unwanted births‡‡	% ending in induced abortions
Total	17,710	5,660	68	2	71	3,980	59	41	100	14	12	10
Addis Ababa	970	240	17	19	37	100	28	72	100	9	9	46
Afar	330	60	62	3	66	70	82	18	100	5	5	6
Amhara	4,130	1,320	64	1	65	840	63	37	100	13	10	7
Benshangul-Gumaz	170	50	71	2	74	40	66	34	100	12	11	6
Dire Dawa	100	30	29	4	34	30	37	63	100	2	3	52
Gambella	80	20	58	1	59	10	69	31	100	7	13	7
Harari	50	20	40	9	49	20	31	69	100	8	3	51
Oromia	6,190	2,320	74	2	76	1,570	52	48	100	17	15	9
Somali	1,040	120	79	3	82	260	91	9	100	2	1	5
SNNP	3,610	1,200	76	1	77	820	55	45	100	15	14	9
Tigray	1,040	280	58	1	58	220	74	26	100	8	4	10
First quintile (poorest)	3,060	750	90	1	90	840	67	33	100	12	9	8
Second quintile	3,330	970	87	0	87	830	61	39	100	13	11	9
Third quintile	3,440	1,090	77	1	78	880	57	43	100	15	13	8
Fourth quintile	3,330	1,100	72	1	73	800	57	43	100	15	13	9
Fifth quintile (wealthiest)	4,560	1,740	41	6	47	640	51	49	100	14	13	15

Notes: Percentages may not add to totals because of rounding. The Demographic and Health Surveys rank individuals according to their household assets and divide the population into five groups of equal size (quintiles) to capture relative differences in wealth. SNNP=Southern Nations, Nationalities and People's region. *Women who are married or are unmarried and sexually active (within previous three months), are able to become pregnant (in the absence of contraceptive use), and do not want any more children or do not want a child in the next two years. †Rhythm, withdrawal and folk methods. ‡Includes nonusers and users of traditional methods. By modern methods, we mean the pill, IUD, injectable, implant, male condom, and male and female sterilization. §Including those that end in miscarriage, which account for an estimated 16% of all known pregnancies. **Because we do not present miscarriages separately, these three columns do not add up to the total proportions of pregnancies that are unintended. ††A birth is considered mistimed if the woman did not intend to have a child in the next two years when she became pregnant. ‡‡A birth is considered unwanted if the woman wanted no more children when she became pregnant. *Source:* Data were calculated using a range of sources. See Appendix at <http://www.guttmacher.org/pubs/appendices/IB-2010-1.pdf>.

Current contraceptive use in Ethiopia is inadequate.

In 2008, 5.7 million women aged 15–49—or roughly one-third of women of reproductive age—were married or were unmarried and sexually active in the previous three months, were able to become pregnant and wanted to delay having a child for at least two years or wanted no more children at all (Table 1). These women form the basis for our analysis. The vast majority (96%) were married and 4%, or 209,000 women, reported being unmarried and sexually active (not shown). (The latter percentage is probably an underestimate, given strong social sanctions against sexual activity outside of marriage and unwed motherhood.[11])

Standard calculations of contraceptive prevalence and need typically use all currently married women, no matter their childbearing intentions, as their population of interest. In contrast, this report focuses on all sexually active women who want to avoid a pregnancy. Our measures therefore differ from and should not be compared with similar indicators published elsewhere. For example, based on all currently married women (which includes those seeking pregnancy), the EDHS value for unmet need for any method is 34%.[8] By contrast, using the same EDHS data, unmet need for any method among sexually active women wanting to avoid a pregnancy is 68%. The difference between the values highlights the extent to which women wanting to avoid a pregnancy are not using a method.

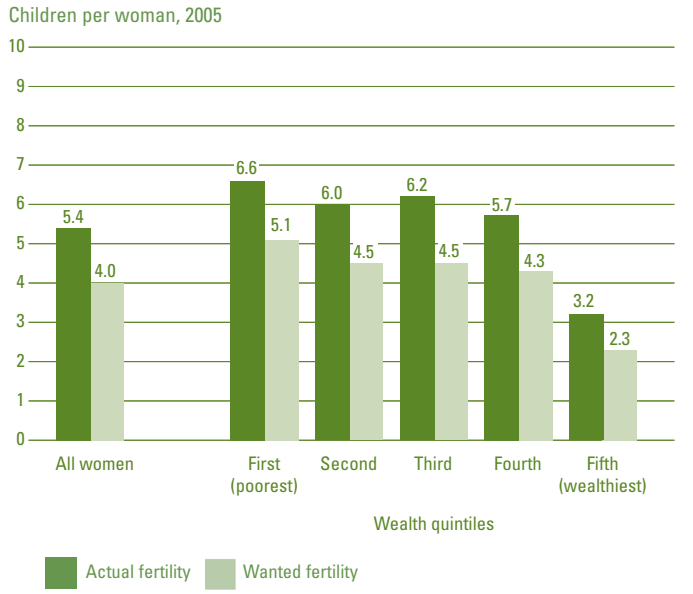
Of all women who want to avoid pregnancy, 56% wish to wait at least two years before having a child (or another child), and 44% want to stop childbearing altogether. Yet, despite wanting to avoid pregnancy, only about 29% of these women use an effective, modern method of contraception. About 2% use a traditional method (mostly withdrawal and periodic abstinence), and about 68% (3.9 million women) use no method at all. The 71% of women who want to avoid pregnancy but are not using any method or are using a traditional method have an unmet need for modern contraception. We consider women who are using traditional methods to have an unmet need because traditional methods have much higher failure rates than modern methods do.

The proportion of women who want to avoid pregnancy but are not protected from it ranges widely across regions and according to wealth quintile. For instance, it is lower than the national average in highly urbanized regions—Addis Ababa (37%), Dire Dawa (34%) and Harari (49%)—where services are likely to be more available and accessible

Figure 1

Fertility Levels

Ethiopian women, especially the poor, are having more children than they want.



Note: See Table 1 for definition of wealth quintiles. *Source:* reference 5.

than they are in rural areas. The proportion with unmet need rises consistently with declining wealth, ranging from 47% in the highest wealth quintile to 90% in the lowest.

The persistence of traditional cultural norms and a predominantly agrarian economy mean that preferred family size remains relatively large in Ethiopia. As a result, more women want to space births than to stop childbearing altogether. Ethiopian women use a limited range of contraceptives to do so: The injectable is used by roughly 21% of women who wish to avoid pregnancy and accounts for nearly three-quarters (72%) of all modern method use. The pill and the condom are the next most common modern methods in Ethiopia, used by 6% and fewer than 1% of women who want to avoid pregnancy, respectively. Only 0.5% rely on sterilization (all of whom use female sterilization). Nonetheless, even if the vast majority are not using a permanent contraceptive method, women who want to stop childbearing appear to be more motivated to practice contraception than those who want to space births (36% vs. 24% use a modern method).

A wide range of cultural barriers (such as traditional attitudes about gender) and logistical problems explain women's low use of modern contraceptives. Among the reasons most commonly cited by nonusers in 2005 were health concerns, fear of side effects and inconvenience of use.[12] Overcoming these barriers will involve giving women and couples accurate and complete information about contraceptive methods, improving their access to the widest possible range of methods and encouraging dialogue between partners about planning pregnancies.

Nonuse accounts for the vast majority of unintended pregnancies.

The likelihood of experiencing an unintended pregnancy varies greatly depending on what, if any, contraceptive method is used and how effectively. The risk is lowest with sterilization and long-acting reversible methods (such as IUDs and injectables), and it is highest when no method is used.[13] Among reversible modern contraceptive methods, the pill is more effective than the condom, and both are more effective than traditional methods, such as periodic abstinence and withdrawal.

In Ethiopia, failure of a modern contraceptive method accounts for just 3% of all unintended pregnancies. Unsurprisingly, the vast majority of unintended pregnancies—95%—occur among the women who do not practice contraception at all. (The remaining 2% are attributable to failures of traditional methods.)

Many women have more children than they want.

A strong desire to space births and have smaller families, coupled with limited modern method use, has led to high levels of unplanned childbearing in Ethiopia. Unplanned births are those that occur too soon or after a woman says she wants no more children. Indeed, slightly more than one-third of recent births (i.e., those in the five years prior to the EDHS) were unplanned, a proportion that remained unchanged from 2000[14] to 2005.[5]

At the same time, Ethiopia's average family size is slowly declining, from 6.4 children per woman in 1990,[8] to 5.9 in 2000[15] to 5.4 in 2005.[8] Yet the number of children women have is still considerably higher than the number they want to have—4.0 children (Figure 1); this differential of 1.4 children is the fourth largest in Africa.[16(Appendix Table 4)]

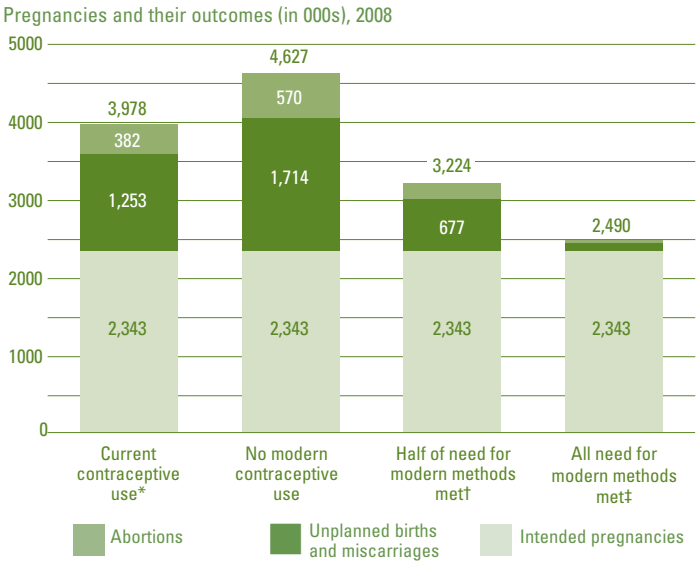
Poor women have an especially hard time having only the number of children they want. Although their desired family size is larger than that of their better-off counterparts, poor women experience a larger gap between wanted and actual fertility. In 2005, the poorest women had 1.5 children more than they wanted, whereas the wealthiest, who likely have better access to contraceptives, had 0.9 children more than they wanted.

The gap between wanted and actual fertility also varies by region. It is largest (almost two children) in the region of Oromia.[17] The gap is very narrow (0.2 children) in Addis Ababa, where women have the fewest children—just 1.4 lifetime births per woman, which is far below replacement fertility (2.1 lifetime births). Women in Addis also want the smallest families and live where services are generally available and accessible. Thus, 64% of women in the capital region who want to avoid pregnancy use a modern method, compared with the national average

Figure 2

Benefits of Reducing Unmet Need

The use of modern contraceptive methods reduces abortions and unplanned births.



*Method mix among women wanting to avoid a pregnancy is 29% modern, 2% traditional, 68% none. †Method mix among women wanting to avoid a pregnancy is 65% modern, 1% traditional, 34% none. ‡100% modern method use among women wanting to avoid a pregnancy. *Source:* See Appendix at <http://www.guttmacher.org/pubs/appendices/IB-2010-1.pdf>.

of 29%. (Here and elsewhere in this report, values may differ from those shown in the tables and figures because of rounding.) Strong motivation to have small families is likely also behind the high abortion rate in the capital region, which is more than double the national average (49 vs. 23 abortions per 1,000 women of reproductive age).[1]

Of the estimated national total of four million pregnancies in 2008, 41% were unintended (Table 1). These unintended pregnancies resulted in births that came too soon (mistimed births; 14% of all pregnancies), births that occurred after a woman said she wanted no more children (unwanted births; 12%), abortions (10%) and miscarriages (6%).*

The proportions of pregnancies that were unintended were highest in Addis Ababa (72%) and lowest in Somali (9%). Regional variations in unintended pregnancy are echoed in regional patterns of induced abortion: More than half of pregnancies in Dire Dawa and Harari end in abortion (51–52%). These two small urban areas (home to just 1% of all Ethiopian women aged 15–49) are commercial centers and transportation hubs, with comparatively accessible abortion services, so women who reside in surrounding areas likely come to these cities to obtain an abortion.[1] The proportion ending in abortion is similar (46%) in Addis, likely for the same reasons, as well as because in the capital, women's desire to have small families probably outpaces their use of modern contraceptives.

However, only 5–6% of pregnancies end in abortion in the predominantly rural regions of Afar and Somali, where desired family size is far higher than average[8] and access to abortion services is also likely to be limited. In Ethiopia, as in some other developing countries, the proportion of pregnancies ending in abortion rises with increasing wealth and is highest among the wealthiest women:[18,19] Just 8% of pregnancies among the poorest Ethiopian women end in abortion, compared with 15% among the wealthiest.

Contraceptive use promotes health and saves lives.

Given that abortion and other maternity-related risks can be reduced drastically by preventing unintended pregnancy, what is the quantifiable contribution of increasing family planning use to women's—and the nation's—health and well-being? As the following scenarios show, higher levels of modern contraceptive use correspond to a lower prevalence of unintended pregnancy and its negative outcomes.

Table 2

Scenarios for Fulfilling Unmet Need

Impacts of contraceptive use in reducing the numbers of pregnancies and negative outcomes, by outcome, 2008

Outcome	Scenarios of use and extent of unmet need				Percentage reduction in outcomes by scenario		
	Current contraceptive use*	No modern contraceptive use	Half of need for modern methods met†	All need for modern methods met‡	Current use vs. no modern use	Half of need met vs. current use	All need met vs. current use
Unintended pregnancies	1,635,000	2,285,000	881,000	147,000	28	46	91
Unplanned births	1,012,000	1,381,000	547,000	85,000	27	46	92
Induced abortions	382,000	570,000	204,000	41,000	33	47	89
Miscarriages	241,000	333,000	130,000	21,000	28	46	91
Maternal deaths	21,300	24,000	18,000	14,700	11	15	31
Infant deaths	235,300	264,600	197,700	160,300	11	16	32
Maternal DALYs lost	1,467,000	1,707,000	1,265,000	918,000	14	14	37
Newborn§ DALYs lost	4,236,000	4,928,000	3,422,000	2,651,000	14	19	37

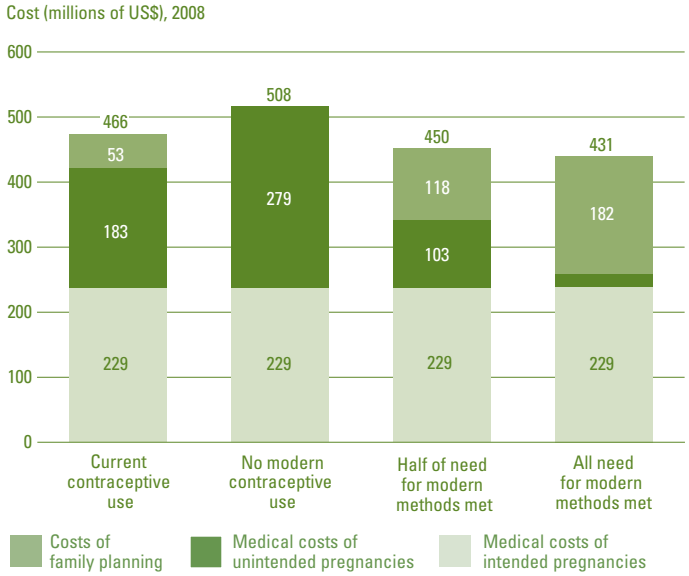
Note: DALY=disability-adjusted life year. The differences calculated from these data may not exactly match the text because of rounding. *Method mix among women wanting to avoid a pregnancy is 29% modern, 2% traditional, 68% none. †Method mix among women wanting to avoid a pregnancy is 65% modern, 1% traditional, 34% none. ‡100% modern method use among women wanting to avoid a pregnancy. §Perinatal. *Source:* See Appendix at <http://www.guttmacher.org/pubs/appendices/IB-2010-1.pdf>.

*Ten percent of all intended pregnancies end in miscarriages, and the proportion of all pregnancies (both intended and unintended) that result in miscarriage is 16%. To calculate this overall proportion, we used a model-based approach based on clinical studies, whereby miscarriages (which include any spontaneous fetal losses, including stillbirths) are estimated to be 20% of births plus 10% of induced abortions.

Figure 3

Cost Savings

Investing in contraception could substantially reduce costs associated with unintended pregnancy.



Note: Cost components may not sum to totals because of rounding. Medical costs include costs for prenatal care, routine newborn care, professional delivery care, obstetric emergency care and, for unintended pregnancies, treatment of complications from unsafe abortion. *Source:* See Appendix at <http://www.guttmacher.org/pubs/appendices/IB-2010-1.pdf>.

Compared with no modern contraceptive use, the current level of modern use has clearly had a positive impact on maternal health: Ethiopian women now experience roughly 1.6 million unintended pregnancies, of which 1.3 million end as unplanned births and miscarriages, and 382,000 are resolved by abortion (Table 2 and Figure 2). If there were no modern contraceptive use at all, however, the country would have to contend with 2.3 million unintended pregnancies. Some 1.7 million would likely end in unplanned births and miscarriages, and 570,000 would end in abortions, the majority of which—about six in 10—would be unsafe.[1] Thus, the current level of modern family planning use already averts around 650,000 unintended pregnancies and 188,000 induced abortions annually.

The pregnancies and abortions averted through the current level of contraceptive use prevent 2,700 maternal deaths and the loss of 240,000 healthy years of women's lives each year (Table 2). Overall, the current level of use reduces these negative maternal outcomes by 11–14%, compared with what would occur in the absence of any modern use.

Increasing the use of effective contraceptives will increase the benefits to Ethiopian women and their families. Ideally, all Ethiopian women who want to avoid pregnancy would use a modern contraceptive method. In that hypothetical situation, there would be 1.5 million fewer unintended pregnancies than currently occur, which would reduce the unplanned births, abortions and miscarriages associated with unintended pregnancies by 89–92%. Maternal deaths would drop by nearly one-third, and the loss of 550,000 healthy years of women's lives would be prevented. Moreover, full use of modern methods would result in one-third fewer infant deaths than would have occurred had these unintended pregnancies been carried to term.

While having all women who want to avoid pregnancy use a modern method is a worthy goal, it may be difficult to achieve, at least in the short term. Not only must current services be ramped up, but expanding access will require far broader improvements. A more realistic scenario for the short term would be meeting half of current unmet need for modern contraception, so that 65% of women who want to avoid pregnancy use a modern method.* Even in this more modest scenario, the benefits over the current situation are notable: If just half of modern need were met, there would be nearly 754,000 (or 46%) fewer unintended pregnancies, which would mean 465,000 fewer unplanned births, 178,000 fewer induced abortions and 3,300 fewer maternal deaths than currently occur.

Modern contraception also saves money.

Every dollar spent on family planning—in any scenario—saves money that would otherwise be spent on maternal, newborn and postabortion care associated with unintended pregnancies. The cost of providing modern contraceptive services and supplies varies according to the mix of methods used. For example, modern method use in Ethiopia currently costs an estimated $53 million annually (Figure 3; see Appendix for an explanation of how costs were calculated). It would cost $118 million to fulfill half of unmet need for modern contraceptives and $182 million to supply all women in need of a modern method. These costs are total costs, which include the cost of contraceptive commodities, and the substantial overhead and capital costs needed to upgrade the country's health infrastructure to provide modern contraceptive services to the women who need them; these expenditures also include costs of counseling and information, education and communication activities.

These costs, which may seem high at first glance, are more than compensated for by the savings that accrue from avoiding medical care expenditures related to unintended pregnancies and unplanned childbearing. For example, the estimated costs of treating postabortion complications; providing prenatal, delivery and routine newborn care; and covering all obstetric emergencies currently total $183 million. These costs would be substantially higher—$279 million—without any modern contraceptive use, because of the resulting higher numbers of unintended pregnancies and unplanned births.

*We arrive at this figure by adding to the current proportion using a modern method (29.3%), half of the proportion using no method (34.2%) and half the proportion using traditional methods (1.2%), for a total of 64.7%.

Thus, considering overall costs (contraceptive services and medical care associated with all pregnancies and births), current use of contraceptives results in a net annual savings of $42 million, or 388 million Ethiopian birr,* over what would be spent on care associated with pregnancy, childbearing and routine newborn care in the absence of any modern method use.

If contraceptive use were increased, even more unintended pregnancies would be averted, and savings would be even more dramatic. The total cost of pregnancy-related medical care would fall by $80 million (739 million Ethiopian birr) if half of unmet need for modern contraceptives were fulfilled and by $164 million (1.5 billion Ethiopian birr) if all women who wanted to delay or limit childbearing used modern methods. Moreover, these are only the short-term health savings related to postabortion, maternal and newborn health care here; longer-term savings would accrue in many areas, from reduced strain on educational resources, water and sanitation services, immunization programs and malaria prevention, to name just a few.[2]

Although reducing unmet need would incur higher contraceptive costs, considerable net savings would still result. Compared with current costs for contraceptive, maternal, newborn and postabortion care, meeting half of the need for modern contraceptives would result in a net savings of $16 million (148 million Ethiopian birr). Fulfilling all unmet need would generate a net savings of $34 million (314 million Ethiopian birr).

*Using an estimated 2008 exchange rate of 9.24 birr per US$1 (source: National Bank of Ethiopia, *National Bank Report 2007-2008,* Addis Ababa: National Bank of Ethiopia, 2009).

Expanded contraceptive use would greatly benefit poor women.

Well-off women have better access than poor women to family planning services, and thus benefit more from the advantages conferred by contraceptive use. Because poor women have substantially higher fertility than wealthier women, full use of modern methods among those who wish to avoid a pregnancy would result in the poorest women having a rate of averted pregnancies that is 2.4 times higher than that of the richest women (349 vs. 147 pregnancies averted per 1,000 women who want to avoid pregnancy, respectively). Similarly, the poorest women have the most to gain in terms of maternal deaths averted: Fulfilling all unmet need for modern contraceptives would avert 155 maternal deaths per 100,000 women wanting to avoid pregnancy among the poorest, compared with 58 per 100,000 among the wealthiest. Although gaps favoring the rich would clearly remain, even with increased use of family planning, the size of those gaps narrows with rising method use, thus reducing inequity.

Additional funding is needed now.

The Ethiopian government currently spends more on procuring contraceptives than many other Sub-Saharan African countries.[20] However, current expenditures on reproductive health overall are inadequate: In 2007–2008 US$8.00 was spent on reproductive health care per woman aged 15–49.[21(p.21)] The total outlay for reproductive health (US$151 million, or 1.4 billion birr) translates to just 13% of the country's total health expenditure. Even though government support increased in the last three years, much of the funds needed to fulfill unmet need are likely to come from international donors and nongovernmental organizations, which are responsible for the largest share of reproductive health funding (44%).[21]

Although this report focuses exclusively on contraception to prevent unintended pregnancy, the effects of increasing services would extend well beyond preventing unsafe abortions and unplanned births. For example, given that the adult prevalence of HIV in Ethiopia is 2.1% (7.5% in Addis Ababa),[22] promoting condoms through the integration of contraceptive and HIV services presents an invaluable opportunity to prevent both pregnancy and HIV, thereby saving lives and maximizing resources.[23] Increased contraceptive use would also enable the country to attain the MDGs more quickly and affordably than would otherwise be possible.

The midterm review of Ethiopia's current Health Sector Development Programme for 2005–2011 notes that the "increased use of family planning commodities" will help lower infant mortality.[24] Simply lowering fertility—and hence women's exposure to the risks inherent in pregnancy and childbearing—through increased contraceptive use would reduce maternal deaths substantially. And there could be 91% fewer unintended pregnancies annually in Ethiopia if all women who want to avoid pregnancy could reap the full benefits of modern contraception.

As women and couples want increasingly smaller families, the demand for contraceptives will only grow. The responsibility for meeting this rising demand for contraceptives will have to be shared by a variety of stakeholders, including the national and regional governments, the private sector and international donors. Improving publicly funded contraceptive services—by committing additional resources, reducing waste and improving the allocation of funds—is especially important in areas where unmet need for modern contraception is greatest, including the underserved regions of Oromia, Somali and the SNNP region. The country must build on the considerable progress made in improving maternal and child health interventions at the *kebele* (village) level through its Health Extension Program, which employs trained health extension workers at the grassroots level and has dramatically increased the numbers of health posts throughout the country.[25]

Investing in contraceptive services not only promotes health among women and families, it also saves money. Higher levels of contraceptive

use would strengthen the labor force by improving the health of working women of childbearing age and the well-being of future generations. Moreover, the monetary savings from averting unintended pregnancy and its negative outcomes could be redirected toward economic development and a variety of public services, and taking on the cost of such services now would enable Ethiopia to avoid much greater expenses down the road. The benefits to Ethiopian families—in improved quality of life and lives saved—would be immeasurable.

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CREDITS

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Advancing sexual and reproductive health worldwide through research, policy analysis and public education

New York
125 Maiden Lane
New York, NY 10038
Tel: 212.248.1111
Fax: 212.248.1951
info@guttmacher.org

Washington, DC
1301 Connecticut Avenue, NW
Suite 700
Washington, DC 20036
Tel: 202.296.4012
policyinfo@guttmacher.org

www.guttmacher.org

Ethiopian Society of Obstetricians & Gynecologists

Room No. 7, 2nd Floor
Tsehafi Tizaz Teferawork Keda
Building, East Wing
Ras Desta Damtew Avenue
Addis Ababa, Ethiopia
Tel: 251-11-5506068/69
esog@ethionet.et

www.esog.org.et