



The Cost of Family Planning in Kenya

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Introduction

This brief presents the main findings of a multi-country study conducted in support of USAID’s efforts to help national governments increase modern contraceptive prevalence. The study’s main objective is to promote understanding of the aggregate costs of increasing the use of family planning (FP). The USAID | Health Policy Initiative, Task Order 1 analyzed the costs of actual FP service provision, identified key barriers to increased uptake of FP, and estimated the cost of reducing these barriers. This brief focuses on the direct cost of FP service provision in Kenya and projects the cost to the government of increasing the contraceptive prevalence rate (CPR).

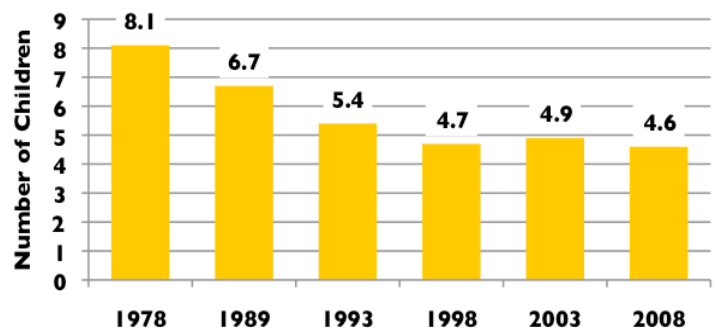
Fertility and Family Planning

Kenya has made impressive progress in family planning over the last three decades. In the 1980s and 1990s, in particular, there was a steady increase in the use of family planning. Contraceptive prevalence grew more than five-fold from a mere 7 percent of married women ages 15–49 in 1978 to 39 percent in 1998. In the same time span, the country reduced its total fertility rate (the average number of children born by a woman over her lifetime) from 8.1 to 4.6 children per woman (see Figure 1). Over the last decade, contraceptive prevalence and fertility rates appeared to have stalled, but the 2008/09 Kenya Demographic and Health Survey (KDHS) showed the country’s contraceptive prevalence gaining renewed momentum, reaching a new high of 46 percent (see Figure 2).

KDHS data show that increased use of modern methods of family planning (see Figure 2) drove the overall increase in contraceptive prevalence rates between 1989 and 2008. For example, use of modern methods among married women ages 15–49 increased from 32 percent in 2003 to 39 percent in 2008, while use of traditional methods actually decreased from 8 percent to 6 percent during these years. Injectables have been the most

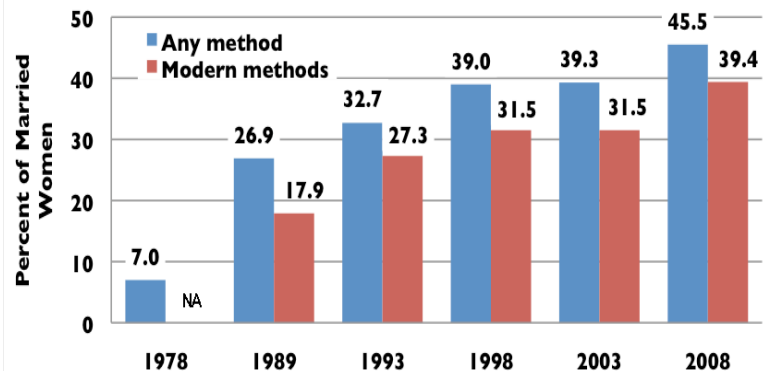
popular method of contraception in Kenya for a long time; 48 percent of married women prefer this method (up from 14% in 2003), followed by the pill (16% of total users) and traditional methods (13% of total users). Long-term methods—such as female sterilization, intrauterine devices (IUDs), and implants—together account for about 14 percent of total users (see Figure 3).

Figure 1. Total Fertility Rates, 1978–2008



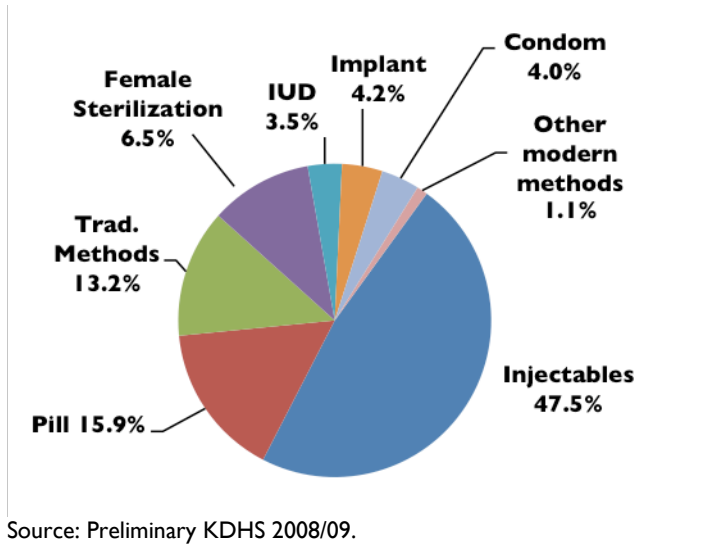
Sources: Kenya Fertility Survey (KFS) 1978; KDHS 1989, 1993, 1998, and 2003; and Preliminary KDHS 2008/09.

Figure 2. Contraceptive Prevalence, 1978–2008



Sources: KFS 1978; Kenya Contraceptive Prevalence Survey (KCPS) 1984; KDHS 1989, 1993, 1998, and 2003; and Preliminary KDHS 2008/09.

Figure 3. Contraceptive Method Mix, 2008



Unmet Need

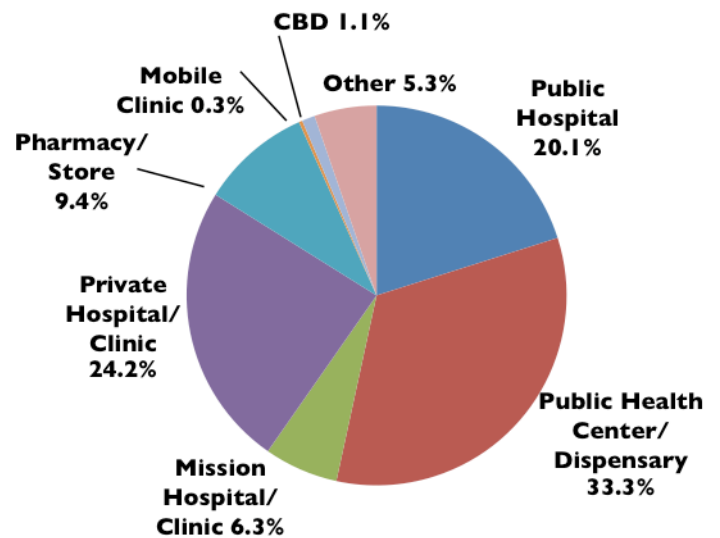
According to the 2003 KDHS,¹ one-quarter of currently married women in Kenya had an unmet need for family planning (14% and 10% of these women expressed a desire to space births at least two years or limit the number of births, respectively). When this unmet need is added to the 39 percent of married women currently using modern contraception, the total demand for family planning is 63 percent. Even if the increase in the CPR observed in the Preliminary KDHS 2008/09 report has reduced unmet need by several percentage points, it is likely that unmet need is still close to 20 percent of all currently married women.

Family Planning Providers

According to the 2003 KDHS, 53 percent of FP users obtained contraceptives through public facilities, while 41 percent and 5 percent of FP users obtained contraceptives through private medical and other sources, respectively. Only 1 percent of users obtained their contraceptives through community-based distribution (CBD) (see Figure 4).

¹ At the time of this writing, the detailed results from the 2008/09 KDHS were not yet available.

Figure 4. Sources of Contraception, 2003



Cost of FP Service Provision

Costs of Commodities

Table 1 shows the average costs for contraceptives and other medical supplies per FP user in the public sector. Commodity prices are based on the average unit cost of contraceptives procured by donor agencies for Kenya in 2008, as calculated from USAID's RHInterchange database.² Other supplies include items such as gloves, syringes for injectables, pregnancy tests, and antiseptics. An additional 10 percent was added to the cost for in-country storage and distribution (based on information from the Kenya Medical Supplies Company). Costs per couple-year of protection (CYP or the cost to protect one couple for one year) ranged from \$0.28 for the IUD to \$11.48 for the implant.

² See http://rhi.rhsupplies.org/rhi/index.do?locale=en_US.

Table 1. Commodity Cost per Unit and CYP, Public Sector, US\$, 2008

	Contra- ceptive cost per unit	No. of units required per year	Contra- ceptive cost per year	Including required supplies	CYP	Cost per CYP
Pills	\$0.31	13	\$3.64	\$4.28	1	\$4.28
Injectables	\$0.99	4	\$3.60	\$4.50	1	\$4.50
IUDs	\$0.64			\$0.84	3	\$0.28
Implants	\$33.00			\$34.45	3	\$11.48

Sources: USAID RHInterchange; donor data 2008.³

Personnel Costs

To calculate personnel costs per FP user, the Health Policy Initiative study team visited a representative sample of about 20 facilities in Kenya. The sample covered a wide range of facilities and regions and included government hospitals and health centers and nongovernmental organization (NGO) and private facilities. Through interviews and observation of medical staff involved in FP service delivery at the facilities, the study team assessed how much time clinic staff spent on typical FP visits. Time estimates were obtained for all of the main methods and for all visit types (initial visit; follow-up visit; and for long-term methods, the insertion and removal visit).

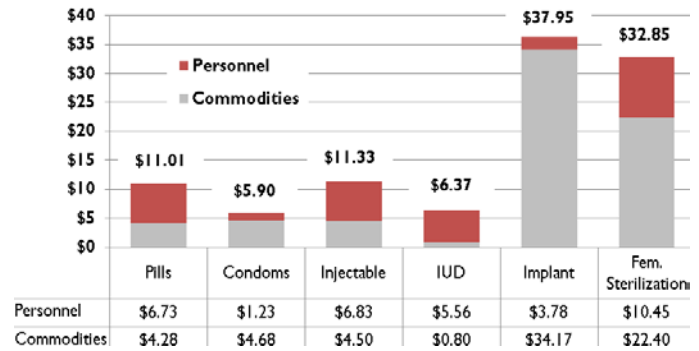
In Kenya, the main providers of family planning at government facilities are nurses (and in some cases clinical officers). Nurses provide all methods aside from female sterilizations, which are performed by doctors. The study team calculated a salary cost per minute based on annual salaries, including benefits. The team then adjusted this number to take into account vacation, downtime, and other time on the job not spent with clients to arrive at a cost per minute spent with an FP client. For a midwife, at an average annual salary of about \$6,500, the cost per minute spent with an FP client was between \$0.07 and \$0.14—mainly depending on the utilization level of the different facilities. For a doctor employed at a government facility, at an average salary of about \$27,000, the cost per minute was between \$0.29 and \$0.59.

The study team calculated costs for commodities and personnel for both initial and follow-up visits and then added them to estimate the average cost incurred over the course of a year of FP use. The direct cost of service

³ Ten percent adjustment for storage and distribution costs.

provision for a new acceptor in the first year of use⁴ ranged from \$5.90 for condoms to \$37.95 for implants (see Figure 5).

Figure 5. Government Facility—Cost in Initial Year of Use, US\$, 2009



The study team calculated costs per CYP based on these data. For short-term methods, such as pills or condoms, cost per CYP is essentially the cost of commodities and visits during one year.⁵ For long-term methods such as IUDs, it is the cost of all commodities and personnel required over the length of the method's use (this includes the initial visit for the insertion, all follow-up visits, and the visit for removal) divided by the years of protection provided.

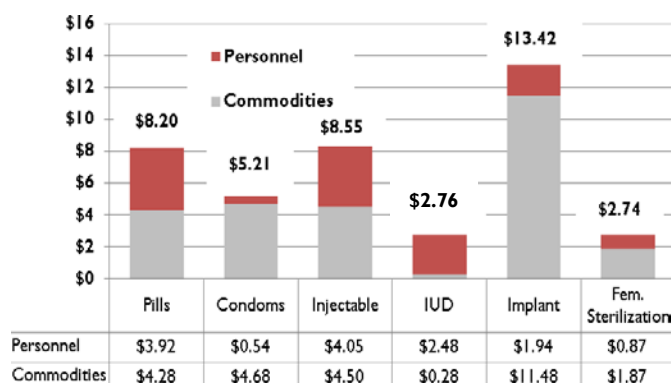
Total direct costs per CYP ranged from \$2.74 to \$13.42, on average. Personnel costs ranged from \$0.54 to \$4.05, with variations mainly due to the number of follow-up visits required for the different methods. For the short-term methods, commodity costs per user per year were in the \$4 to \$5 range. Long-term methods cost between \$0.28 (IUD) and \$11.48 (implant) per year of protection provided (see Figure 6).

For pills and injectables, personnel costs accounted for about half of total direct costs. For the IUD, however, personnel costs were about 90 percent of total direct costs. By contrast, for the implant, commodity costs accounted for more than 85 percent of direct costs incurred.

⁴ The information shown combines findings for government health centers and hospitals.

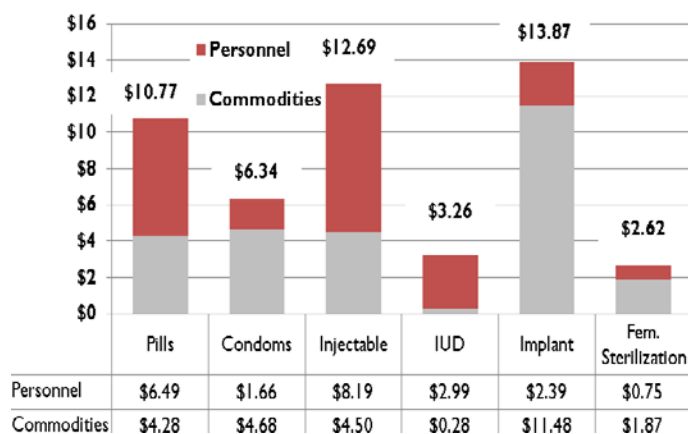
⁵ The calculations do recognize that the initial visit tends to cost more than follow-up visits. It was assumed that the average pill/injectable user stayed on the same method for three years. Average CYP was calculated by adding up the cost of the first year (initial visit +11 and 3 follow-up visit, respectively) and the cost of the two following years (11 and 4 follow-up visits, respectively) and then dividing the total cost by three.

Figure 6. Government Facility—Costs per CYP, US\$, 2009



For comparison, the study team calculated the average cost per CYP at NGO-operated clinics (see Figure 7). Costs at the NGO clinics (run by Marie Stopes and Family Health Options Kenya) were slightly higher than those at government facilities, mainly due to higher salary levels and because women are often seen by higher-paid staff such as clinical officers and doctors for methods that at government facilities would be provided by nurses (IUDs, implants).

Figure 7. NGO Facility—Costs per CYP, US\$, 2009



Cost of Increasing Contraceptive Prevalence by One Percentage Point

The study team estimated how much it would cost to increase modern contraceptive prevalence in Kenya by one percentage point in 2009. Based on the preliminary KDHS 2008/09 and United Nations population data, there were 1.9 million women or couples who were using modern FP methods in 2008. A one percentage point increase in CPR to 40.4 percent by 2009, together

with an expected 2.3 percent increase in the number of married or in union women of reproductive age, would result in an additional 97,200 users, bringing the total number of modern method users to almost 2.0 million.

Table 2 shows the number of new users/acceptors who would be expected to seek FP services at government facilities in 2009, if the share of government-sponsored FP services remained constant.

Table 2. Projected Number of New FP Users by Method with One Percentage Point Increase, 2009

	Total	Government facilities
Pills	17,984	8,722
Condoms	4,496	728
Injectables	53,953	33,181
Implants	4,746	2,909
IUDs	3,997	1,954
Sterilization	11,990	6,462
TOTAL	97,166	53,956

Using cost per new user/acceptor for the different methods (as presented in Figure 6 above), the total direct cost of providing these new users with FP services at government facilities would come to almost \$1.4 million in 2009⁶. About US\$436,000 or 32 percent of costs would be for commodities; about US\$920,000 or 68 percent of costs would be for personnel (see Table 3). These numbers include only direct costs to government facilities where current utilization is low; a one percentage point increase could easily be absorbed by the existing infrastructure and human resources, although researchers found utilization varied considerably between facilities and regions.

Table 3. Cost of Providing FP Services to Additional Number of Users at Government Facilities, US\$, 2009

	Commodity	Personnel	Total costs
Pills	\$37,323	\$64,289	\$101,612
Condoms	\$3,405	\$893	\$4,298
Injectables	\$149,282	\$4,711	\$153,993
Implants	\$99,396	\$81,085	\$180,481
IUDs	\$1,569	\$81,134	\$82,703
Sterilization	\$144,731	\$689,929	\$834,660
TOTAL	\$435,706	\$922,041	\$1,357,747

⁶ This constitutes only a small portion of the total government FP costs.

Cost of Meeting Unmet Need by 2015

The study estimated how much it would cost to meet the Millennium Development Goal of eliminating all unmet need for family planning in Kenya by 2015. About 20 percent of married women still have an unmet need for spacing or limiting births to achieve the number of children they want to have. This means the contraceptive prevalence rate will have to increase almost 20 percentage points—from 45 percent as observed in the KDHS in 2008/09 to 64 percent by 2015 to satisfy married women’s demand for family planning (both rates include traditional methods).

Unlike the previous calculation that only looked at additional costs incurred by new users, this scenario examines the cost of providing family planning to all users. To calculate total commodity requirements and costs, average cost per CYP as presented above was used to project short-term methods such as pills and injectables. For long-term methods, different cost estimates were used for the initial year of use and the following years to account for the fact that 90–100 percent of the cost of long-term methods is incurred during the first year of use.

Based on KDHS estimates of the number of users and average length of usage, the study team calculated how many women would obtain long-term methods in a given year and how many women would visit the health system for removal of these methods.

No cost was assumed to be incurred for female sterilization after the first year; for the IUD and the implant, a cost was calculated for the year of removal and no costs were assumed to be incurred in the years between the insertion and removal.

The government would need to spend approximately \$8.3 million on family planning commodities and direct personnel costs to provide care at the government facilities for all methods in 2015.

Assuming that the current modern method mix stayed the same, with injectables and pills remaining the predominant methods, there would be approximately 1.9 million injectable users and 640,000 pill users by 2015—up from the current 1.1 million and 370,000 users, respectively. If the provider mix remained the same, 62 percent of women using injectables and 39 percent of pill users would seek care at government facilities.

Achieving a 20 percentage point increase in contraceptive prevalence will require large investments in Kenya’s health infrastructure, particularly continued improvement in its logistics system and training of healthcare providers. Additional resources might be required to revive Kenya’s once successful community-based FP programs to improve access to and use of family planning by women in remote and rural areas.

Methodology

The data collection process in Kenya included (1) a literature review of available FP data and studies; (2) interviews with key staff at organizations involved in family planning and healthcare providers at a sample of about 30 public and private facilities; and (3) a one-day workshop with key stakeholders to discuss the barriers to increasing Kenya’s contraceptive prevalence rate and the possible approaches to tackling these barriers.

The study limitations include the following: (1) the small sample size of health facilities and data captured over a brief timeframe may not be representative of facilities nationwide in Kenya; (2) estimations employed in the analysis were based on assumptions, as stated, that draw on latest international and national research but may not accurately reflect the actual situation in Kenya; and (3) views of the stakeholders represented at the workshop with stakeholders might not be representative of the views of the larger FP community.

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