



The Cost of Family Planning in Jordan

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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 Jordan and projects the cost to the government of increasing the contraceptive prevalence rate (CPR).

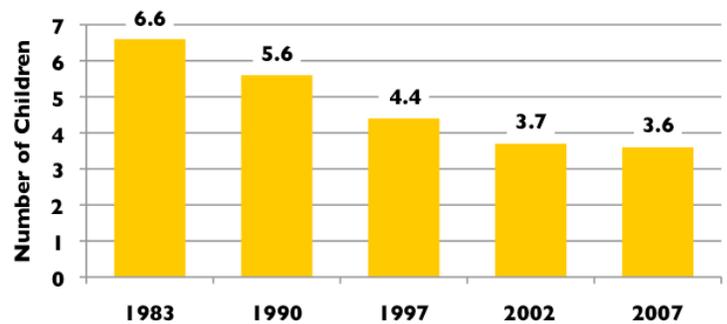
Fertility and Family Planning

Jordan has made impressive progress in reproductive health and family planning over the last decades. Less than 20 years ago, the country’s annual rate of population growth ranked among the highest in the world. Today, the estimated annual population growth rate is 2.2 percent. Fertility has dropped from an average of 6.6 children per woman in 1983 to 3.6 in 2007 (see Figure 1).

Over the same time span, total contraceptive prevalence among married women ages 15–49 has increased from 26 percent to 57 percent (see Figure 2). According to the 2007 Jordan Population and Family Health Survey (JPFHS), 57 percent of married women ages 15–49 are currently using family planning; 42 percent are using modern methods and 15 percent rely on traditional methods, such as periodic abstinence and withdrawal. Of the modern methods, 39 percent of FP users prefer the intrauterine device (IUD) and 15 percent use the pill (see Figure 3). Reliance on less effective traditional FP methods remains high; more than a quarter of total FP users still rely on traditional methods. Unmet need for

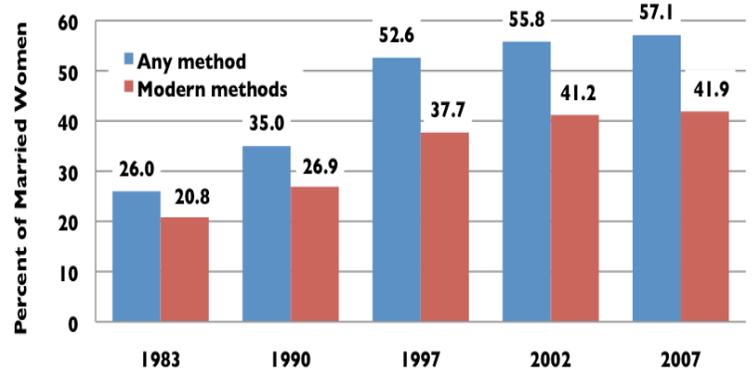
family planning is still significant, and the discontinuation rate among FP users is disconcertingly high.

Figure 1. Total Fertility Rates, 1983–2007



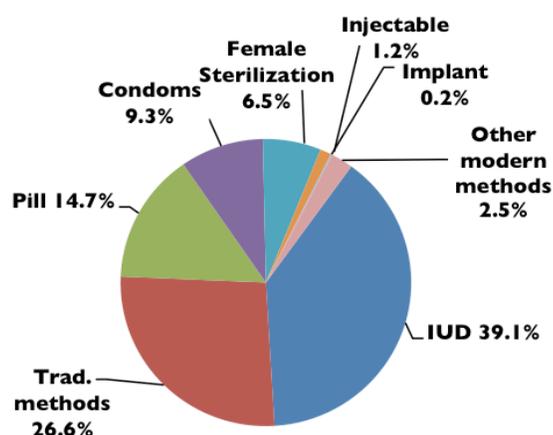
Source: JFFHS 1983, 1990, 1997, 2002, 2007.

Figure 2. Contraceptive Prevalence, 1983–2007



Source: JFFHS 1983, 1990, 1997, 2002, 2007.

Figure 3. Contraceptive Method Mix, 2007



Source: JPFHS 2007.

Unmet Need

Unmet need for family planning is defined as the percentage of married women who desire to space their births at least two years apart or limit childbearing entirely but are not using contraception. Despite the relatively high use of contraceptives, there remains substantial unmet need in Jordan. The 2007 JPFHS found that 12 percent of married women have an unmet need for family planning—5 percent for spacing the next birth at least two years and 7 percent for limiting childbearing.

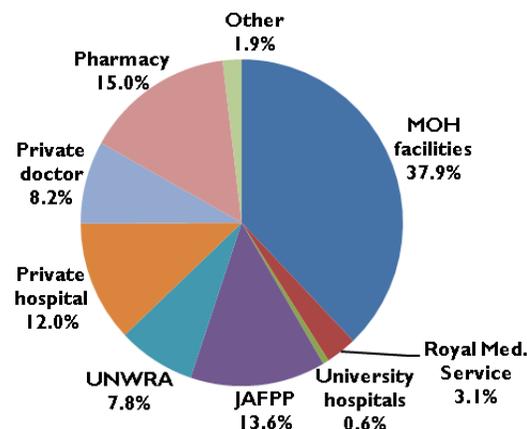
Family Planning Providers

Jordan's FP system comprises public, nongovernmental, and commercial entities and providers. Historically, these sectors have contributed roughly equally to providing and financing FP services. However, the role of the private sector in providing FP services has diminished somewhat over the last decade (from a 42% to a 35% share of total FP service provision). In 2007, the government became the main provider, serving 42 percent of FP users. Nongovernmental organizations (NGOs) delivered 22 percent of FP services in 2007—down from about 30 percent in 1997.

Essentially all FP services in Jordan are facility-based, delivered through clinics and hospitals. The study focused on assessing the cost of FP service provision at the facility level for the main providers. More than 60 percent of FP users obtain their services through three agencies: the Ministry of Health (MOH), the nongovernmental Jordanian Association for Family Planning and Protection (JAFPP), and the United Nations

Relief and Works Agency (UNRWA). An additional 35 percent of FP users obtain services through private providers, such as pharmacies, private doctors/ObGyns, and hospitals (see Figure 4).

Figure 4. Sources of Contraception, 2007



Source: JPFHS 2007.

Cost of FP Service Provision

Costs of Commodities

Table 1 shows the average cost for contraceptives and other medical supplies per FP user in the public sector. Commodity prices shown are the average prices currently paid by the Government of Jordan. Other required supplies include items such as gloves, syringes (for injectables), pregnancy tests, and antiseptics necessary for the provision of FP services.

Table 1. Commodity Cost per FP User at MOH Health Centers and CYP, 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	\$1.00	13	\$13.01	\$4.28	1	\$13.29
Condoms	\$0.02	100	\$2.20	\$2.48	1	\$2.48
Injectables	\$0.74	4	\$2.95	\$3.49	1	\$3.49
IUDs	\$3.23			\$4.99	3	\$1.66
Implants	\$20.22			\$21.76	3	\$7.25

Source: USAID RHInterchange; donor data 2008.¹

¹ Ten percent adjustment for storage and distribution costs.

Personnel Costs

The personnel costs were calculated based on a 2005 cost study conducted by the Jordan Higher Population Council. That study, which collected data at a representative sample of 30 government facilities, assessed the staff time spent on typical FP visits for each of the main FP methods (excluding female sterilization).

The Health Policy Initiative study team combined information from the 2005 cost study with 2007 salary estimates provided by the MOH. The team calculated cost per minute spent on client contact using estimates of staff utilization provided by a study conducted in 2000.²

Initial visits for FP services last an average of 25–30 minutes at MOH health facilities. The main providers typically are a midwife who provides the counseling and a physician who does physical exams, administers injectables, and inserts IUDs. Because most physicians at government health centers are male, certain procedures, such as physical exams or IUD insertions, require the presence of a female staff member (usually the midwife) in addition to the male physician performing the procedure.

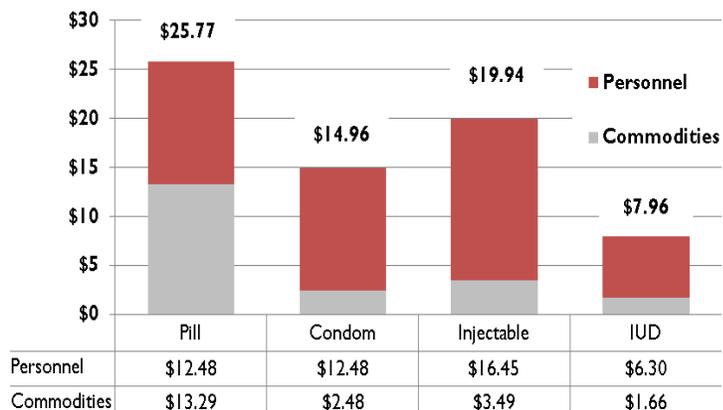
Follow-up visits at MOH facilities are usually shorter in length (less than 10 minutes). Again, double-staffing is required for the physical exam carried out during this visit. Except for gloves, no further commodity costs are incurred for the IUD during follow-up visits. Over the course of a year, there are usually two follow-up visits for the pill and condom and three for injectables and IUDs.

Figure 5 shows the cost per couple-year of protection (CYP) at MOH health centers. This is a measure of the cost to prevent pregnancy during one year for one couple. For short-term methods, such as pills, condoms, or injectables, the cost per CYP is essentially the cost of commodities and visits during one year. For long-term methods, such as IUDs, it is the cost of commodities and visits, divided by the three years of protection provided.³

² See Khoury, S.A., and S. Mmawadjeh. 2004. "Performance of Health Providers in Primary Health Care Services in Jordan." *Eastern Mediterranean Health Journal* 10(3): 372–381.

³ The calculations recognize that the initial visit tends to cost more than follow-up visits. The study team 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 +2 to 3 follow-up visits) and the cost of the two

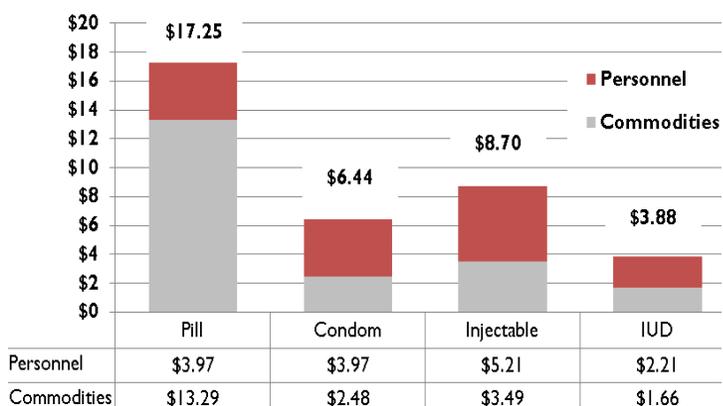
Figure 5. Costs per CYP of MOH Health Centers, US\$, 2009



Total direct costs per CYP ranged between \$8 and \$26, on average. Personnel costs ranged from \$6 to \$16, with variations mainly due to the number of follow-up visits required for the different methods. Most commodity costs per user per year were in the \$2 to \$6 range. The pill was the notable exception. The Government of Jordan currently pays more than \$13 for a yearly supply of pills.

Figure 6 shows comparable cost estimates per CYP for JAFPP. Total direct costs per CYP ranged from about \$4 to more than \$17. Personnel costs ranged from more than \$2 for IUDs to more than \$5 for injectables. The pill was the most expensive commodity at more than \$13 per yearly supply of pills. Other commodity costs per user per year ranged from less than \$2 to more than \$3.

Figure 6. Costs per CYP at JAFPP, US\$, 2009



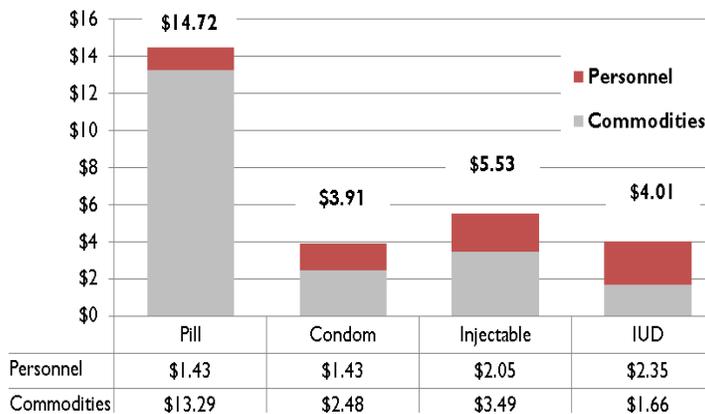
Although salaries and benefits for JAFPP staff are higher than those paid for staff employed by the MOH, cost per minute of client contact is about the same because

following years (3 to 4 follow-up visits each) and then dividing the total cost by three.

JAFPP staff spend more of their working hours with clients. Direct costs are lower at JAFPP facilities mainly because JAFPP employs only female physicians, which eliminates the need to have an additional female staff member present during physical examinations and other procedures. Also, visits tend to be shorter at JAFPP facilities—an average initial visit lasts 15 minutes—while similar visits at government facilities usually last 25–30 minutes.

FP costs for UNRWA facilities are shown in Figure 7. Total direct costs per CYP ranged from about \$4 to \$15. Personnel costs ranged from more than \$1 for condoms and pills to more than \$2 for injectables and IUDs. The pill was the most expensive commodity purchased by UNRWA at a yearly supply cost of more than \$13. Other commodity costs per user per year ranged from almost \$2 to more than \$3.

Figure 7. Costs per CYP at UNRWA Facilities, US\$, 2009



Salaries paid by UNRWA are substantially higher than at JAFPP and government facilities. However, staff at UNRWA facilities see more patients each day, which leads to lower costs per minute than those of the other two providers. According to UNRWA’s 2007 Annual Report, doctors see an average of 96 clients a day. Costs per CYP are lower than at government facilities due to low staff costs per minute, shorter average length of visits, and fewer follow-up visits per year than at MOH facilities.

The costs presented here represent only the direct costs of providing FP services, which include commodities and salaries for service providers. The full costs include other items, such as facilities, equipment, supervision, administration, research (including monitoring and evaluation), information, education and communication and training. Adding these additional costs raises the cost per CYP of JAFPP services by about 12 percent.

The full costs at MOH and UNRWA facilities are more difficult to determine, as family planning represents only 1 percent to 2 percent of all health visits. Furthermore, because the MOH must serve the entire population, it provides FP services in some facilities that may have few patients each day. As a result, the number of FP clients could expand substantially without requiring any additional expenditures for facilities, supervision, administration, or transportation. Therefore, the study team limited this analysis to the direct costs of family planning, which will vary depending on the number of clients. Note that the full funding required for the national FP program is greater than the direct costs alone.

Cost of Increasing Contraceptive Prevalence by One Percentage Point

The Health Policy Initiative estimated how much it would cost to increase Jordan’s modern contraceptive prevalence by one percentage point.

The modern CPR was extrapolated from the 2007 JPFHS to 2008 based on historical growth rates, leading to an estimated modern CPR in 2008 of about 42.1 percent—amounting to approximately 371,400 women or couples using modern FP methods in Jordan. A one percentage point increase in CPR to 43.1 percent by 2009 was projected to result in an additional 23,200 users,⁴ bringing the total number of modern method users in Jordan to 394,600.

Table 2 shows the number of new users/acceptors projected to seek FP services at government facilities in 2009 if the percentage share of FP services provided by the government remained constant.

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

	Total	MOH facilities
Pills	5,024	1,914
Condoms	3,170	1,439
Injectables	419	311
Implants	376	129
IUDs	83,911	28,763
Sterilization	5,493	3,724
TOTAL	98,392	36,381

⁴ This estimate includes an expected 3.6 percent increase in the number of women ages 15–49 who are married or in union.

Based on Health Policy Initiative cost estimates per new user/acceptor, the government portion of the total direct cost of providing these new users with family planning at government facilities would be an estimated US\$187,000 (see Table 3); about US\$51,000—27 percent—of this would be commodity costs. (The study looked mainly at commodity costs, as these are the most relevant at government facilities, where current utilization is low; a one percentage point increase could easily be absorbed by the existing infrastructure and human resources, although utilization may vary between facilities and regions).⁵

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

	Commodity	Personnel	Total costs
Pills	\$23,523	\$25,296	\$48,819
Condoms	\$3,294	\$19,019	\$22,313
Injectables	\$1,004	\$5,320	\$6,324
Implants	\$437	\$384	\$822
IUDs	\$22,519	\$85,734	\$108,252
TOTAL	\$50,777	\$135,753	\$186,530

Cost of Achieving the Goals of Jordan's Reproductive Health Action Plan II (2008–2012)

Jordan recently published its Reproductive Health Action Plan (RHAP) Phase II for 2008–2012, an extension of the RHAP I implemented during 2003–2007. The new plan spells out the fertility and FP targets Jordan hopes to achieve by 2012 to ensure that the country stays on track for achieving the national goal of a total fertility rate (TFR) of less than 2.5 children per woman by 2020.⁶ By 2012, Jordan intends to increase modern contraceptive prevalence to 51.1 percent and decrease the TFR from the current rate of 3.6 children per woman to 3.1.

If the country achieves its FP goal by the end of the planning phase, there will be 501,500 FP users in 2012, or almost 130,000 more users than in 2008.

Although achieving the goals of RHAP will require additional personnel time devoted to family planning, it is not likely to result in additional expenditures for

⁵ Jordan currently has excess capacity in terms of human resources. The study team assumed that cost per patient seen will remain the same even with an increase in patient load.

⁶ This national goal is documented in the National Population Strategy.

Assuming that the method and provider mix stay about the same, annual commodity costs funded by the Jordanian government will increase from \$850,000 to \$1.2 million by 2012. This includes the commodities the government is providing free of charge to the country's NGOs (except those commodities required for female sterilization). This amounts to an additional \$700,000 for commodities during the four-year period over the current level of spending.

personnel, as current capacity in the system is sufficient to meet the additional service requirements.

Methodology

The data collection process in Jordan included (1) a literature review of available FP studies and costing data and (2) interviews with key stakeholders as well as healthcare providers at a sample of FP facilities. Most of the information on MOH facilities is based on a cost study in 2005 conducted by the Jordan Higher Population Council at about 30 MOH and Royal Medical

In addition to government expenditures, donors would also need to increase funding to JAFPP and UNRWA. The private sector services would also need to expand proportionately to achieve RHAP goals.

Services facilities (both hospitals and health centers).⁷

The study limitations included 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 Jordan; (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 Jordan.

⁷ Higher Population Council. 2006. *Determining Cost of Reproductive Health Services/Family Planning. A Case Study* (Draft).

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