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# A TREND ANALYSIS OF THE FAMILY PLANNING MARKET IN JORDAN: INFORMING POLICY AND PROGRAM PLANNING

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The views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the U.S. Government.



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# EXECUTIVE SUMMARY

## Background

According to the recent 2007 Jordan Population and Family Health Survey (JPFHS), Jordan has been successful in increasing the use of modern family planning (FP) methods among married women ages 15–49. Since 2002, the country has made strides in expanding the availability of high-quality FP services and products through two Reproductive Health Action Plans (RHAP-I and RHAP-II). However, population growth, high unmet need for FP methods, and marked disparities in FP indicators for certain populations create near-term challenges for the government of Jordan to fully meet the FP needs of its population. This paper presents the findings of a market segmentation analysis to help inform policy and program implementation for family planning in Jordan.

## Objectives

The purpose of this study was to conduct a desk-based analysis of the JPFHS 2007 to better understand and define the roles of the public, commercial, and nongovernmental organization (NGO) sectors in serving current and potential FP users. Specifically, the Health Policy Initiative analyzed socioeconomic and demographic characteristics across the five standard of living (SLI) quintiles and compared method use and provider sources by wealth quintiles to determine the extent to which FP use and provider choice behavior differed. Where data were available, 2007 results were compared to 2002 and 1997 JPFHS data to understand trends over time.

## Results

Fifty-seven percent of currently married women are currently using some method of contraception, ranging from 48 percent of the poorest quintile to 62 percent of the wealthiest quintile. The methods of contraception used also vary by quintile; 26 percent of the wealthiest women use intrauterine devices (IUDs), compared with only 16 percent of the poorest women. Marked disparities in contraceptive use also exist between urban and rural residence for all methods. In particular, modern method use is five to 10 times higher in urban areas versus rural areas, depending on the method. Modern contraceptive use in rural areas is 31 percent among the poorest quintile, compared with 45 percent among the wealthiest quintile. A similar pattern between wealth quintiles was also observed for urban areas.

Use of the public sector is highest among the poorest quintile, while use of the commercial sector is highest among the wealthiest quintile. Of the 42 percent of users who obtain family planning from the public sector, 54 percent are in the poorest quintile and 25 percent are in the wealthiest quintile. Trends over the last 10 years indicate that the poorest women are shifting from the NGO and commercial sectors to the public sector. From 2002 to 2007, women's use of contraceptives obtained through NGOs decreased from 33 percent to 24 percent in the poorest quintile and 20 percent to 14 percent in the wealthiest quintile. During this same period, use of contraceptives from the commercial sector increased from 15 to 19 percent in the poorest quintile and decreased from 62 to 60 percent in the wealthiest quintile.

In 2007, among the 7 percent of women ages 15–49 who were currently pregnant, 26 percent of their pregnancies, as well as their births in the last five years, were unintended—they were either mistimed (14.7%) or unplanned (11.3%). These figures represent a significant decline from 2002, when one-third of all births were mistimed (17.2%) or unplanned (15.9%). When broken down by quintile, unmet need for spacing and limiting vary greatly.

Almost 40 percent of currently married Jordanian women ages 15–49 who begin using an FP method are expected to discontinue using that method within one year (DOS, 2008). The discontinuation rates are also high among women who began using the four most popular methods in Jordan (DOS, 2008): the IUD (11.8 % discontinue in one year); withdrawal (34.5%); the male condom (43.6%), and the pill (46.5%).

## **Conclusions**

Reducing missed opportunities is integral to strengthening the FP/RH program, particularly for service delivery and policy. The JPFHS 2007 reveals a few areas where Jordan can maximize existing efforts—by capturing women at the time of delivery and through postnatal visits, targeting women ages 25–29, and seizing opportunities to expand long-acting and permanent methods, particularly for women who want to limit the number of children. Greater targeting to reach urban populations, specifically within the poorest quintile, could not only improve FP use but offer an expanded choice for women.

Policies and programs for family planning in Jordan can also be strengthened by improving the private sector’s participation in the FP market. Although the private sector plays an important role in the FP market in Jordan, its market share has slightly declined since 2002. To increase private sector participation, the public sector must establish policies and regulations that support the private sector provision of FP/RH services and products. The achievement of this goal will require increased policy discussion within the government and increased public sector dialogue with the private sector.

Recommendations outlined in this report will help the government of Jordan to realize the goal articulated in the RHAP—to “promote appropriate and effective use of FP/RH services and information within the 2008–2012 timeframe”—by enabling an improved policy environment for FP/RH, improved availability of affordable and equitable high-quality FP/RH services, and increased demand for FP/RH services.

## **ABBREVIATIONS**

CPR	contraceptive prevalence rate
DHS	Demographic and Health Survey
FP	family planning
IEC	information, education, and communication
IUD	intrauterine device
JAFPP	Jordanian Association for Family Planning and Protection
JD	Jordanian Dinar (currency)
JPFHS	Jordan Population and Family Health Survey
LAM	lactational amenorrhea method
MCH	maternal and child health
MOH	Ministry of Health
MWRA	married women of reproductive age
NGO	nongovernmental organization
OC	oral contraceptive
RH	reproductive health
RHAP	Reproductive Health Action Plan
RMS	Royal Medical Services
SLI	Standard of Living Index
TFR	total fertility rate
UNRWA	United Nations Relief and Works Agency
USAID	United States Agency for International Development

# I. INTRODUCTION

## Context

According to the recent 2007 Jordan Population and Family Health Survey (JPFHS), Jordan has been successful in increasing the use of modern family planning (FP) methods among married women ages 15–49 from 27 percent in 1990 to 42 percent in 2007. Since 2002, the country has made strides in expanding the availability of high-quality FP services and products. For example, as part of a USAID FP commodity phase-out strategy, the Jordanian government now finances 100 percent of its contraceptive commodity requirements for the public sector and selected nongovernmental organizations (NGOs), with the exception of intrauterine devices (IUDs). Although this illustrates significant progress, efforts must be made to ensure that high-quality FP services and commodities remain available, given the upcoming challenges and competing priorities.

There are several near-term challenges that Jordan must address to fully meet the FP needs of its population. First, as the population continues to grow and demand for family planning increases, the number of contraceptive users among married women ages 15–49 is expected to rise by 19.1 percent in the next seven years – from 497,138 in 2008 to 591,982 users in 2015 (Health Policy Initiative, 2008). Based on data from the JPFHS and population estimates by Health Policy Initiative in Jordan, 6.9 percent of women ages 15–49 are currently pregnant. Based on data about births in the last five years from JPFHS 2007, 11.3 percent (12,069) of these pregnancies in 2007 were unintended. Third, there are marked differences in the FP indicators for particular populations. When observing trends over the last five years, Jordan has experienced a plateau in the modern contraceptive prevalence rate (CPR), total fertility rate (TFR), and unmet need. However, a closer look at these indicators reveals a different trend. Based on secondary data analysis of the 2002 and 2007 JPFHS, fertility rates have declined among the rural population from 4.2 in 2002 to 3.7 in 2007, and 18 percent of the rural poor married women ages 15–49 have an unmet need for family planning. Furthermore, among married women, unmet need for limiting births increased from 5 percent in 2002 to 7 percent in 2007. High fertility rates (3.6 births per woman), high unmet need (12%), and high discontinuation rates (40%) in Jordan demonstrate that further efforts are needed to achieve the replacement-level fertility of 2.1 children per woman, such as further understanding the factors that contribute to discontinuation and addressing barriers to FP use (DOS, 2003 and 2008).

In 2008, Jordan amended the first Reproductive Health Action Plan (RHAP-I) to produce RHAP-II to “promote appropriate and effective use of FP/reproductive health (RH) services and information within the 2008–2012 timeframe” (HPC, 2008). This goal will be achieved through

- An improved policy environment for FP/RH;
- The improved availability of affordable and equitable high-quality FP/RH services; and
- An increased demand for FP/RH services.

Jordan must make additional progress, as well as identify and address any missed opportunities for expanding FP use. Resources will need to be mobilized to ensure access to high-quality family planning for the long term. Policymakers will require a better understanding of the FP market,<sup>1</sup>

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<sup>1</sup> The **market** for FP services includes contraceptive methods, consumers, and providers. Contraceptive methods extend to both modern methods of family planning (such as pills, condoms, IUDs, and sterilization) and traditional methods (such as withdrawal, periodic abstinence, and vaginal douche). **Consumers** are defined as women of reproductive age (15–49), including those using a modern or traditional FP method and those with an unmet need for family planning. **Providers** are defined as the government and private for-profit (commercial sector) and not-for-profit

including the factors contributing to FP use, to implement strategies and interventions as outlined in Jordan's RHAP. Within this context, this paper presents a market segmentation analysis to help inform policy and program implementation for family planning in Jordan.

## Objectives

A market segmentation analysis can help to define and promote complementary roles for the public, commercial, and NGO sectors—specifically which segments of the population each sector should serve. The USAID | Health Policy Initiative, Task Order 1, conducted a desk-based study to answer numerous policy-relevant questions, such as the following:

- What are the key sources of FP products and services (e.g., public, commercial, NGO sectors)? What is the relative market share of each source of FP services?
- What methods does each source offer and at what price?
- Who is the intended market for each provider—both current and planned?
- What is the socioeconomic and demographic distribution of current contraceptive users?
- What is the profile of current public, commercial, and NGO sector clients?
- What profile of the population would be most at risk if contraceptives were no longer available in the public sector?
- What is the untapped potential for commercial products among users of subsidized products?
- Who has access to and can afford commercial FP services and products?
- Are FP clients obtaining services according to their ability to pay, and do service delivery practices indicate that subsidization is linked with clients' ability to pay?

Answers to these questions will help the government to (1) establish a better match between current/potential users and the appropriate source of contraceptives, taking into account the users' locations, needs, preferences, and ability to pay; (2) identify and define the target groups, potential market, and niches for the public, commercial, and NGO sectors; and (3) improve the strategic planning process to achieve contraceptive security in Jordan.

## Method of Analysis

An important element of the analysis is establishing households' ability to pay for FP services. This knowledge can be gleaned from a Standard of Living Index (SLI) that ranks households from poorest to wealthiest. The following is a discussion of the methodological framework used to create the SLI and the market data analysis. Further analysis of the results can be found in the data tables in Appendix A.

This study presents a secondary data analysis of the JPFHS 2007 (DOS, 2008) and includes trend data based on the JPFHS 2002 (DOS, 2003) and the JPFHS 1997 (DOS, 1998). Data for this study were taken from the three survey reports and were also tabulated from the Individual Woman's Record files produced by Macro International. The study authors estimated the number of FP users by taking data from the Jordan 2004 census; the JPFHS 1997, 2002, and 2007; and the Jordan Department of Statistics.

The JPFHS 2007 produced national-level estimates and estimates for the urban and rural areas; for each of the three regions (Central, North, and South); for the Badia and the non-Badia areas; and for each of the 12 governorates. Almost 15,000 households were sampled; 10,876 ever-

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entities (NGOs). How these components of the FP market fit together is referred to as the FP market structure (Cakir and Sine, 1997).

married women ages 15–49 were interviewed—of whom 10,354 were currently married women ages 15–49.

The JPFHS 2002 produced national-level estimates and estimates for the urban and rural areas; for the three regions; and for each of the three major governorates—Amman, Irbid, and Zarqa. The survey included a sample of about 8,000 households; 6,006 ever-married women ages 15–49 were interviewed—of whom 5,706 were currently married women ages 15–49.

The JPFHS 1997 produced national-level estimates; estimates for the urban and rural areas, by region; and for the three major governorates: Amman, Irbid, and Zarqa. The survey included a sample of approximately 7,600 households; 5,548 ever-married women ages 15–49 were interviewed—of whom 5,337 were currently married women ages 15–49.

The wealth index constructed by Macro International (hereafter, Macro) was used for the market segmentation analysis. In developing a wealth index, each household asset or amenity is assigned a factor score generated through principal component analysis. In this way, Macro defined the standard of living in terms of assets rather than income or consumption.<sup>2</sup> The Health Policy Initiative used this information to construct separate quintiles for urban and rural areas.

The project team then analyzed various socioeconomic and demographic characteristics—such as education, parity, age, rural/urban residence, and place of residence—across the five SLI quintiles. Method use and provider sources were also compared across SLI quintiles to determine the extent to which contraceptive use patterns and provider choice behavior differed. FP providers were categorized as

- Government facilities (government hospitals, health centers, maternal and child health [MCH] centers, Jordan University Hospital, Royal Medical Services [RMS], and mobile clinics);
- Commercial providers (private hospitals and clinics);
- Pharmacy providers (pharmacies, drugstores);
- Jordanian Association for Family Planning and Protection (JAFPP) clinics; and
- United Nations Relief and Works Agency (UNRWA) clinics inside and outside of refugee camps.

Finally, estimates of the number of users of modern methods of family planning in 2002 and 2007 were developed for this report by the Health Policy Initiatives Project in Jordan. The number of women ages 15–49 in 2002 was based on the 2004 Jordan Census population reversed to 2002 by 2.4% per year (the estimated RNI) then allocated according to the age/sex distribution in the 2004 census. The number of women ages 15–49 in 2007 was estimated by projecting the 2004 Jordan Census, using the “DemProj” module in the Spectrum modeling suite<sup>3</sup> with the Model East Life table; TFR and ASFR interpolated between the 2002 and 2007 JPFHS; and the “Asia” fertility pattern, with e0 males=71.0 and e0 females=72.0. The estimates were adjusted for labor migration and refugees from Iraq.

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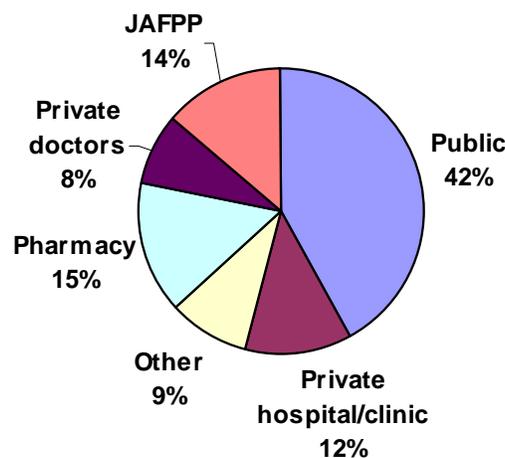
<sup>2</sup> This method of constructing an SLI has become more popular in recent years. See [www.worldbank.org/poverty/health/data/index.htm](http://www.worldbank.org/poverty/health/data/index.htm) for a complete technical discussion of the general approach, as well as examples from other countries in the previous round of USAID-funded demographic and health surveys.

<sup>3</sup> Originally developed under the POLICY Project, the Spectrum Suite of Policy Models is periodically updated and can be found at <http://www.healthpolicyinitiative.com/index.cfm?id=software>.

## II. PROVIDER MARKET

Women use a wide range of service providers in Jordan. The public, commercial, and NGO sectors play an equally important role in the delivery of FP methods and services (see Figure 1). The public sector serves 42 percent of the current users of modern methods. It supplies all methods and is almost completely subsidized by the government, except for IUDs. FP methods and services are delivered by a wide network of Ministry of Health (MOH) facilities, including 377 primary health centers, 64 comprehensive health centers, 238 periphery health centers, 416 MCH centers, and 30 hospitals (MOH, 2007). In addition, 81 ambulatory care centers, 5 clinics, and 10 hospitals of the Royal Medical Services (RMS) and two university-affiliated hospitals provide FP services and methods. The RMS serves public security and armed forces staff and their dependents.

**Figure 1. Sources of FP methods among current users of modern methods**



Source: JPFHS 2007.

The NGO sector serves about 14 percent of the current users of modern methods in Jordan. The NGO providers include the JAFPP (13.6%), the Jordanian Hashemite Fund for Human Development, the Soldiers Family Welfare Society, the Arab Women's Organization, and the Noor Al-Hussein Foundation. The NGO sector offers all methods, except sterilization, and is financed partially by donors and partially by fees charged to clients. JAFPP has 16 clinics that serve 14 percent of current users—significantly less than in 2002, when its market share was 20 percent. The association provides free contraceptives and charges a nominal price for FP services. For example, it charges only five Jordanian Dinars<sup>4</sup> for an IUD insertion.

In addition to several NGOs operating in Jordan, there are some donor-supported facilities—the largest being the UNRWA, which serves about 7.8 percent of the FP users (who are Palestinian refugees) through a network of 23 clinics both inside and outside of refugee camps. All services and methods the UNRWA provides are free.

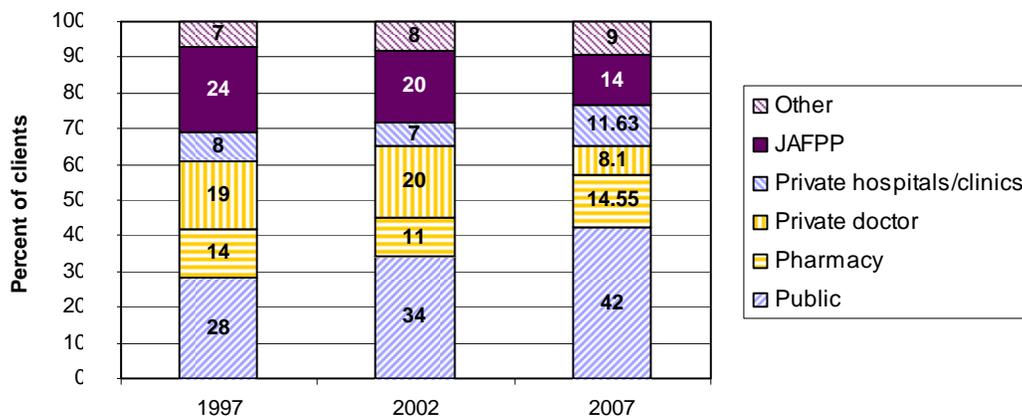
<sup>4</sup> 1 JD (Jordanian Dinar) = \$1.42.

Finally, the private commercial sector serves about 35 percent of the current modern method users through private hospitals (12%), private doctors, (8%), and pharmacies (15%). The commercial sector provides all methods and is completely financed by user fees. This sector has experienced a slight decrease in market share from 38 percent in 2002. FP services and methods are offered through a large network of about 60 private hospitals, 9,561 general practitioners, and 1,806 pharmacies (MOH, 2007). The private sector facilities and providers are mainly concentrated in Amman. Prices in the commercial sector vary greatly across the types of providers. For example, prices charged for an IUD insertion range from an average of 15 JDs for general practitioners to 35 JDs for obstetricians/gynecologists, excluding the IUD's price (information provided by Jordan Private Sector Project for Woman Health, 2008).

There is largely a favorable policy environment for private sector growth and expansion in Jordan. In 2001, duties, tariffs, and sales tax on imported contraceptives were abolished by the government, with the exception of the IUD, which is subject to a 16 percent sales tax because it is not considered a drug. This policy change should have resulted in the commercial sector becoming a more affordable source for many potential FP clients. However, following the government decision to exempt contraceptives from all taxes, the commercial sector withdrew low-price oral contraceptives (OCs) and replaced them with a new generation of highly priced OCs.

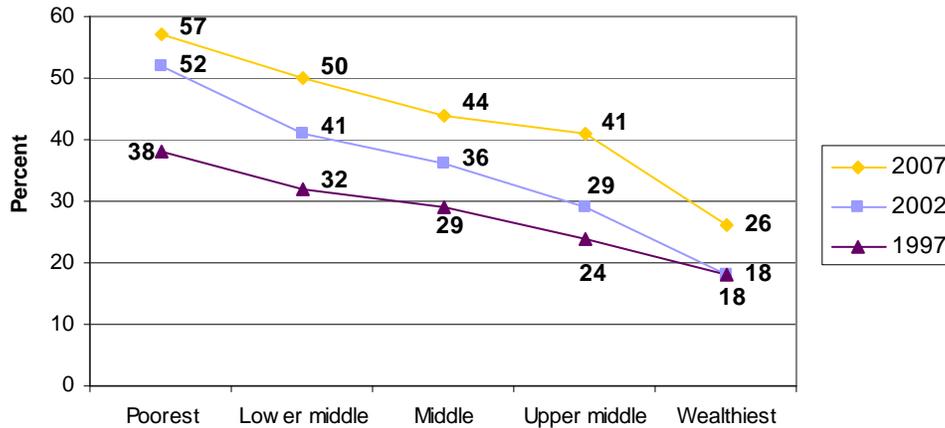
Figure 2 illustrates the trends in market shares from 1997 to 2007 by various providers; the public sector market share has been growing, while the market shares for JAFPP and the private sector have both decreased. What is the cause of these shifts and who is being served by the various markets? When the market share is further disaggregated by quintile, as in Figure 3, several notable observations can be made. First, the public sector is serving a greater proportion of clients in the poorest quintiles than in the wealthiest quintiles. Second, consumers across all quintiles have increased use of the public sector over the last decade. This indicates the people who were paying for private sector services are now obtaining subsidized services from the government.

**Figure 2. Trends in FP provider market (1997, 2002, 2007)**



Source: JPFHS 2007, 2002, 1997.

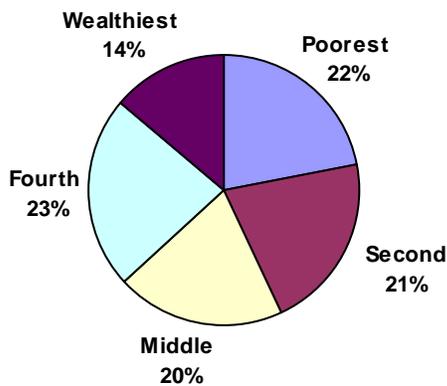
**Figure 3. FP public sector market share across wealth quintiles (1997, 2002, 2007)**



Sources: JPFHS 1997, 2002, and 2007.

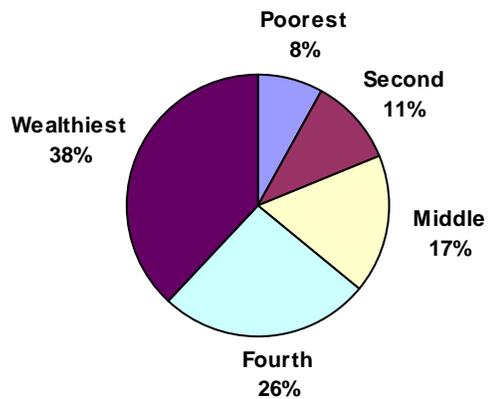
It is important to recognize that the public sector is indeed serving the poor, while the commercial sector is serving the wealthier clients—14 percent of the public sector clients are from the wealthiest quintile and 22 percent are from the poorest, while 38 percent of the private sector clients are from the wealthiest quintile and only 8 percent are from the poorest (see Figures 4 and 5). However, a large proportion (37%) of government clients is in the top two quintiles. Further information should be collected to determine who these clients are, what is driving their behavior, and whether there is opportunity to shift wealthier clients to the private sector so that government resources can be better targeted to serve the poor. The government should consider how best to allocate its resources to ensure that the needs of all segments of the population are met; this involves determining which market provider can most effectively address the needs of each segment.

**Figure 4. Distribution of FP users in the public sector by wealth quintile (2007)**



Source: JPFHS 2007.

**Figure 5. Distribution of FP users in the private sector by wealth quintile (2007)**



Source: JPFHS 2007.

### III. CONSUMER CHARACTERISTICS

This section analyzes the consumer market in terms of socioeconomic and demographic characteristics, method use, place of residence, and provider sources. The data refer to currently married women ages 15–49 in 2007.

#### Socioeconomic and Demographic Profile

Analysis of the level of education across SLI quintiles indicates that, overall, there is a positive relationship between wealth and education in Jordan. Table 1 shows that about 11 percent of the women in the lowest quintile never attended school, compared with less than 1 percent of women in the uppermost quintile. Only 13 percent of women in the poorest quintile attained higher than a secondary level education, compared with 49 percent of women in the wealthiest quintile. About 29 percent of the poorest women live in rural areas, whereas the wealthiest women are concentrated in urban areas (95%).

**Table 1. Percent distribution of currently married women ages 15–49 by wealth quintile and background indicators (2007)**

	Wealth Quintiles					Total
	Poorest	Second	Middle	Fourth	Wealthiest	
<b>Level of Education</b>						
No education	10.6	4.0	3.1	0.8	0.2	3.7
Elementary	14.6	8.6	6.9	4.2	2.5	7.4
Preparatory	21.4	16.9	15.4	13.5	9.4	15.3
Secondary	40.8	48.8	46.3	45.3	38.4	43.9
Higher	12.6	21.8	28.4	36.1	49.5	29.7
Total	100	100	100	100	100	100
<b>Urban/Rural Residence</b>						
Urban	71.1	78.8	81.8	88.3	95.2	83.1
Rural	28.9	21.2	18.2	11.7	4.8	16.9
Total	100	100	100	100	100	100
<b>Age Group</b>						
15–19	2.4	2.4	2.2	2.1	1.7	2.2
20–24	10.8	12.0	12.0	12.1	11.8	11.7
25–29	15.6	17.8	18.4	19.3	20.0	18.2
30–34	18.9	20.1	20.4	21.0	21.4	20.3
35–39	18.3	18.7	18.9	19.1	19.4	18.9
40–44	19.4	17.4	17.1	16.4	16.	17.3
45–49	14.6	11.5	11.1	10.0	9.6	11.4
Total	100	100	100	100	100	100
<b>Place of Residence</b>						
Central	48.0	54.8	59.7	67.0	81.6	62.2
North	38.7	34.4	29.7	24.8	14.2	28.4

South	13.2	10.8	10.6	8.2	4.2	9.4
Total	100	100	100	100	100	100

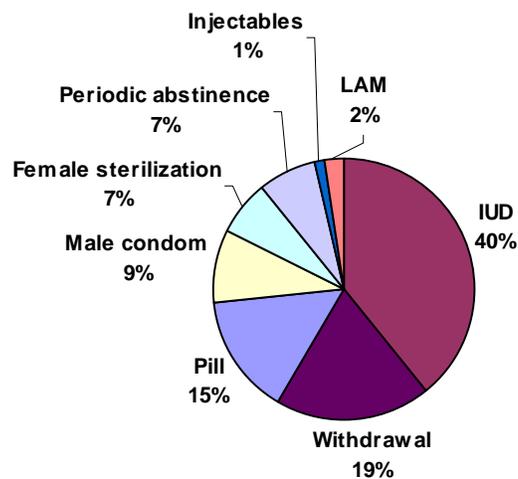
Source: JPFHS 2007.

## Family Planning Use

### Current Users

Fifty-seven percent of currently married women are presently using some method of contraception, ranging from 48 percent of the poorest quintile to 62 percent of the wealthiest quintile. Among these current contraceptive users, the most commonly used methods are IUDs (40%, constituting more than half of all users, including traditional and modern); withdrawal (19%); the pill (15%); male condoms (9%); female sterilization (7%); lactational amenorrhea method (LAM) (2%); periodic abstinence (7%); and injectables (1%) (see Figure 6).

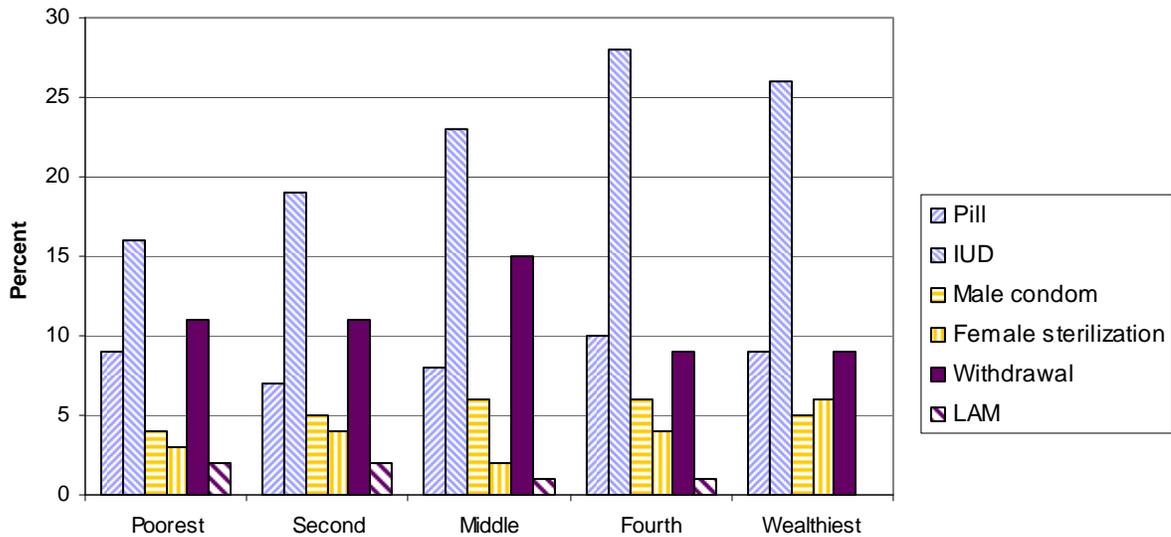
**Figure 6. Contraceptive use among all users by method (2007)**



Source: JPFHS 2007.

The methods of contraception used also vary by quintile, as shown in Figure 7 below. As the figure illustrates, IUD use increases across the wealth quintiles. Twenty-six percent of the wealthiest women use IUDs, compared with only 16 percent of the poorest women. Similarly, women in the wealthiest quintile (6%) are twice as likely to be sterilized as women in the poorest quintile. The differences across wealth quintiles vary for other methods and are less pronounced for pills. Injectables, foam, and jellies are not reflected in the graph, since overall use of each method is close to nil.

**Figure 7. FP use across wealth quintiles (2007)**



Source: JPFHS 2007.

Table 2 further breaks down contraceptive use by urban/rural residence and wealth quintiles among the 57.1 percent of women who are currently using FP methods.

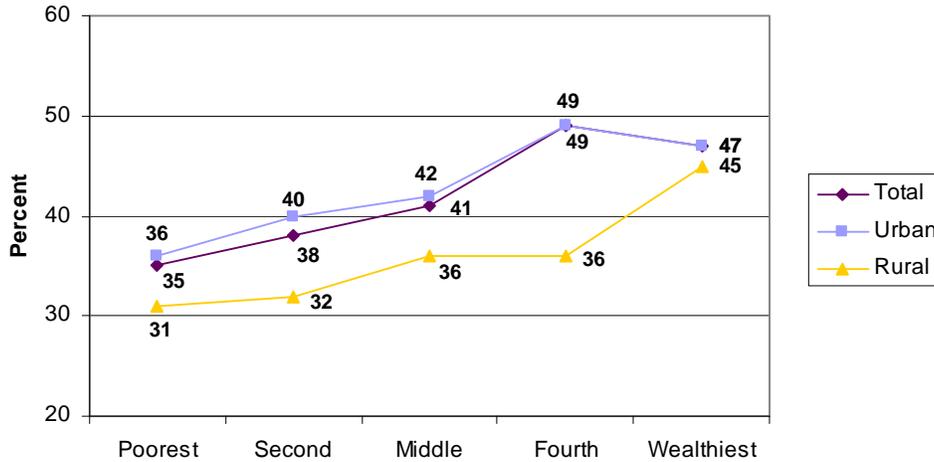
**Table 2. Current use of contraception among existing users by residence and wealth quintiles (2007)**

	Female Sterilization	Pill	IUD	Injectables	Male Condom	LAM	Other modern	Withdrawal
<b>Residence</b>								
<b>Urban</b>	5.51	12.95	34.25	0.89	8.19	1.94	0.15	15.78
<b>Rural</b>	0.94	1.86	4.77	0.31	1.05	0.50	0.00	3.10
<b>Wealth Quintile</b>								
<b>Poorest</b>	0.88	3.17	5.64	0.46	1.30	0.74	0.00	3.81
<b>Second</b>	1.29	2.44	7.24	0.41	2.03	0.74	0.00	3.88
<b>Middle</b>	0.85	2.81	6.98	0.39	1.96	0.71	0.00	5.20
<b>Fourth</b>	1.57	3.48	9.52	0.10	1.84	0.38	0.00	3.14
<b>Wealthiest</b>	1.9	2.86	8.48	0.67	1.90	0.13	23.28	2.93

Marked disparities in contraceptive use also exist between urban and rural residence for all methods. In particular, modern method use is five to ten times higher in urban versus rural areas, depending on the method. About 15 percent of married women of reproductive age rely on traditional methods (DOS, 2008). The use of traditional methods is more or less the same across quintiles. About 43 percent of women use no method at all, ranging from 52 percent of the poorest quintile to 38 percent of the wealthiest quintile. This indicates that a considerably higher proportion of poor women, compared with wealthier women, do not use any FP method.

What happens when urban and rural areas are further distributed according to wealth? Modern contraceptive use in rural areas is 31 percent among the poorest quintile, compared with 45 percent in the top quintile (see Figure 8). A similar pattern is observed for urban areas, as illustrated below.

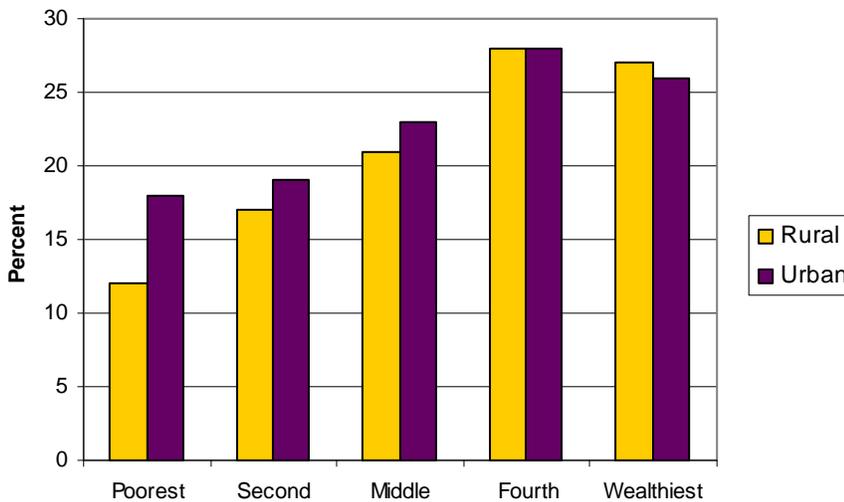
**Figure 8. Modern method use based on redistributed urban and rural wealth quintiles (2007)**



Source: Health Policy Initiative, 2008.

Such disparities are further reinforced when specifically examining IUD use, the most popular modern method, by rural/urban wealth quintile (see Figure 9).

**Figure 9. IUD use among married women, by urban and rural quintiles (2007)**

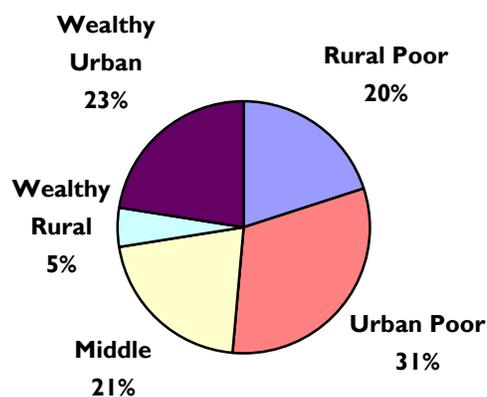


Source: Health Policy Initiative, 2008.

This type of socioeconomic and geographic distribution is important when considering market size and determining how best to reach the poor—in both urban and rural areas. Figure 10 below illustrates market size of current contraceptive users by redistributed wealth quintiles, where poor

comprises the bottom two wealth quintiles and wealthy comprises the top two quintiles in both urban and rural areas.

**Figure 10. Market size of current contraceptive users, by redistributed wealth quintiles**



Taking a look back: how has market size changed over the last five years? A comparison of contraceptive use between 2002 and 2007—cross-tabulated by rural/urban residence and wealth quintile—illustrates that the disparity in FP use among the poorest quintiles has decreased between rural and urban areas since 2002 (see Table 3). In 2007, only 31 percent of the poorest women in rural areas used any modern method, compared with 36 percent of their urban counterparts. This is an improvement from 2002, when only 25 percent of the rural poor were using a modern method, compared with 29 percent of the urban poor.

**Table 3. Percent of currently married women using modern contraceptive methods in 2007 and 2002, by urban and rural wealth quintiles**

	2007			2002		
	Urban	Rural	Difference between urban and rural	Urban	Rural	Difference between urban and rural
<b>Poorest</b>	35.9	31.4	12.5	28.9	24.6	14.9
<b>Second</b>	38.4	34.9	9.1	36.7	27.4	25.3
<b>Middle</b>	41.6	36.3	12.7	38.8	35.6	8.2
<b>Fourth</b>	49.9	44.4	11.0	42.6	43.1	-1.2
<b>Richest</b>	47.1	46.5	1.3	48	39.5	17.7

Source: Health Policy Initiative, 2008.

### Contraceptive Discontinuation

The government of Jordan should pay close attention to contraceptive discontinuation as it strives to meet the year 2020 national population goal, “To contribute to a sustainable base for economic development through a decrease in the nation’s total fertility rate [from 3.6 in 2007—JPFHS 2007] to less than 2.5 children per woman of reproductive age” (RHAP-II). Almost 40 percent of currently married Jordanian women ages 15–49 who begin using a family planning method are

expected to discontinue using that method within one year (see Table 4) (DOS, 2008). The discontinuation rates are also high among women who began using the four most popular methods in Jordan (DOS, 2008): the IUD (11.8 % discontinue in one year), withdrawal (34.5%), the male condom (43.6%), and the pill (46.5%). A program response to maintain contraceptive use might include a focus on those women whose discontinuation was the result of method failure, especially among users of traditional methods. Program responses might include improved counseling by healthcare providers to advise women on the correct and effective use of FP methods and adoption of the best method to meet their reproductive goals, given their age, parity, and fertility intentions. In addition, perhaps more can be done during counseling and information, education, and communication (IEC) efforts to inform women about the failure rates of using traditional methods, such as withdrawal, as a method of contraception. Public IEC efforts and mass media campaigns might also be improved to encourage women to choose more effective modern methods where the failure rate is expected to be lower than traditional methods. Interventions can also better target these users to shift to a method with lower failure rates (i.e., modern methods).

**Table 4. Percent distribution of first-year contraceptive discontinuation rates by method and reason for discontinuation among currently married women ages 15–49 (2007)**

Method	Method failure	Desire to become pregnant	Switched to another method	Other reason	Total
Pill	5.9	10.3	12.9	17.4	46.5
IUD	0.8	3.3	4.9	2.9	11.8
Injectables	1.4	9.6	17.5	12.7	41.2
Male condom	9.4	12.3	15.6	6.2	43.6
Lactational Amenorrhea	5.4	12.1	38.8	37.8	94.1
Periodic Abstinence	20.5	11.4	5.3	1.6	38.5
Withdrawal	12.6	11	8.4	2.6	34.5
All methods	7.1	8.9	12.9	10.8	39.7

Note: These rates refer to users who began using a method during the five years preceding the survey and who also stopped using that method within one year.  
Source: JPFHS 2007.

A careful analysis of the reasons for discontinuation—recounted by women who discontinued using a contraceptive method—can also provide additional information for the design and implementation of FP/RH programs. For example, Table 5 indicates that more than one-third of women who discontinued using “withdrawal” as their FP method during the past decade stopped using that method because they became pregnant. Another 11–16 percent who stopped using withdrawal between 1997 and 2007 said they wanted a more effective method. Among women who discontinued using the IUD, the percent who said they stopped using that method because of side effects decreased from 1997 to 2002 and 2002 to 2007, but the percent of women who discontinued using the IUD due to health concerns increased from 1997 to 2002 and 2002 to 2007. These findings provide a direction for further analysis to inform FP/RH programs. Note that cost and availability/accessibility were reported as a reason for discontinuation less than 1 percent of the time over the past decade.

**Table 5. Percent distribution of primary reasons for discontinuation of selected contraceptive methods during the five years preceding the survey by selected methods (1997, 2002, 2007)**

Reason	Year	Method		
		Pill	IUD	Withdrawal
Became pregnant	1997	15.9	10.5	39.3
	2002	14.8	7.0	35.7
	2007	12.2	6.3	35.1
Wanted to become pregnant	1997	16.2	33.4	27.3
	2002	26.7	39.9	36.5
	2007	38.3	49.3	43.7
Side effects	1997	31.6	27.9	1.6
	2002	25.5	22.2	1.1
	2007	12.5	12.2	1.0
Health concerns	1997	11.1	12.4	1.4
	2002	13.6	18.1	1.1
	2007	17.5	23.8	1.5
Wanted more effective method	1997	3.7	1.4	12.8
	2002	6.4	0.6	15.5
	2007	3.6	0.9	10.9

Note: The percentages do not add to 100 percent because only the most important reasons are included in the table.

Sources: JPFHS 1997, 2002, 2007.

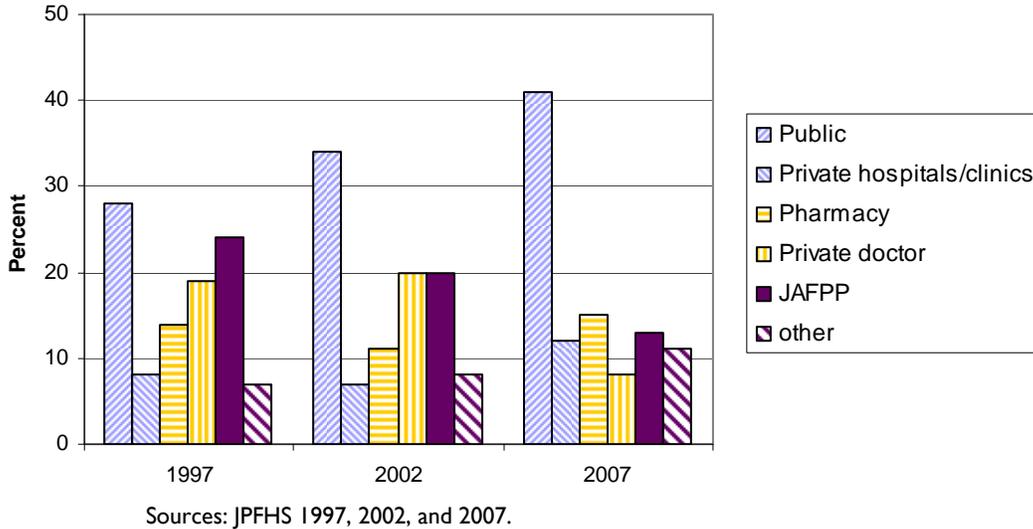
### **Non-Use of Contraception**

Among currently married women ages 15–49 in Jordan in 2007, 42.9 percent were not using an FP method. Among those women who were not using family planning, more than one-third (36.9%) said they did not intend to use family planning in the future—and among these women, 19.6 percent wanted more children, 16.5 percent said they were not at risk (sub-fecund or infecund), 16.3 percent based their decision on health concerns, 10.9 percent were menopausal or had a hysterectomy, and 8.8 percent reported the reason as infrequent sex (DOS, 2008). FP programs can respond to those women who cited health concerns as a reason for not using family planning. No major differences were observed between urban and rural populations.

### **Source of Contraceptives**

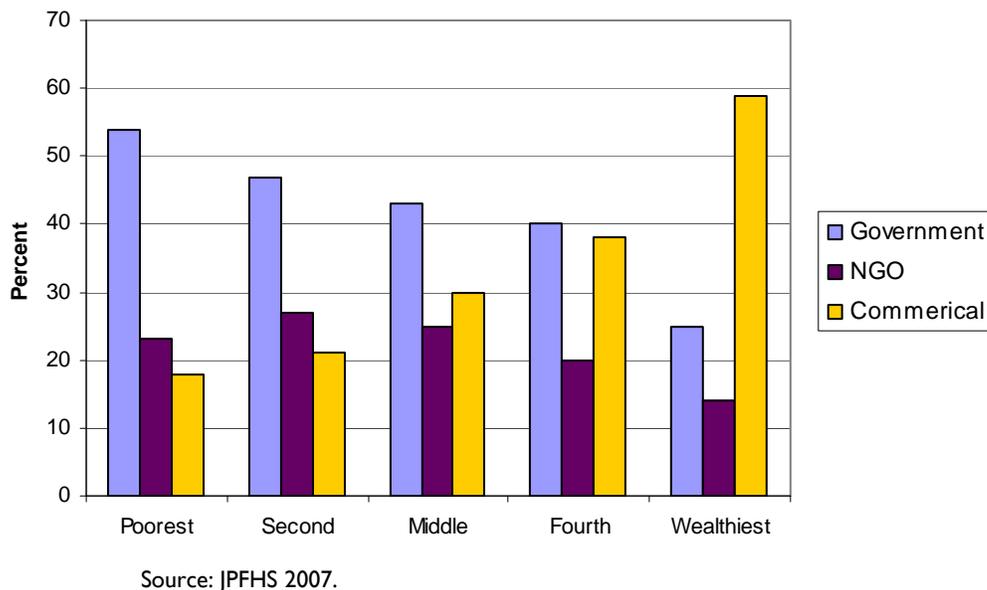
As previously discussed, approximately 42 percent of FP users access public sector services, while 58 percent access services from the private sector. The private sector comprises the commercial sector (35%); JAFPP (14%); and other NGOs, including UNWRA (9%). This represents a significant market shift from 2002, with a decrease in service provision through JAFPP and the commercial sector and an increase through the public sector. In particular, the market share of JAFPP, a large provider of IUDs, has greatly declined since 1997 (see Figure 11).

**Figure 11. Trends in market share, by sector (1997, 2002, 2007)**



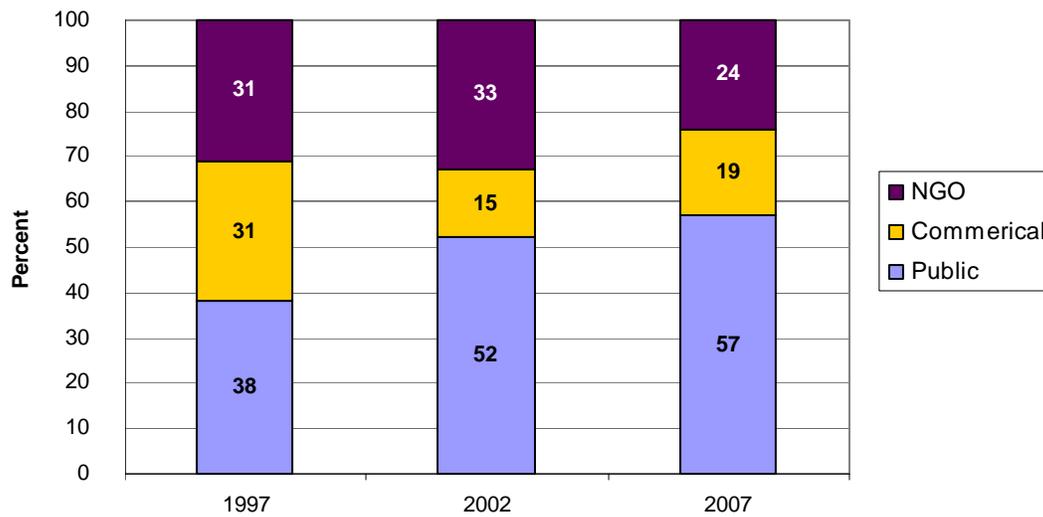
Use of the public sector is highest among the poorest quintile, while use of the commercial sector is highest among the wealthiest quintile (see Figure 12). Of the 42 percent of users who obtain family planning from the public sector, 54 percent are in the poorest quintile and 25 percent are in the wealthiest quintile. However, although a larger proportion of public sector clients are poor, the government is serving a higher percentage of clients in the wealthiest quintile today, compared with five years ago (25% versus 18%, respectively).

**Figure 12. Sources of modern methods across wealth quintiles (2007)**



Trends over the last 10 years indicate that the poorest women are shifting from the NGO and commercial sectors to the public sector (see Figure 13).

**Figure 13. Source of FP methods among the poorest women (1997, 2002, 2007)**



Sources: JPFHS 1997, 2002, 2007.

From 2002 to 2007, women’s use of contraceptives obtained through NGOs decreased from 33 percent to 24 percent in the poorest quintile and 20 percent to 14 percent in the wealthiest quintile. During this same period, use of contraceptives from the commercial sector increased from 15 to 19 percent in the poorest quintile and decreased from 62 to 60 percent in the wealthiest quintile. Commercial sector use varies considerably across all the quintiles and demonstrates economically rational behavior by the clients.

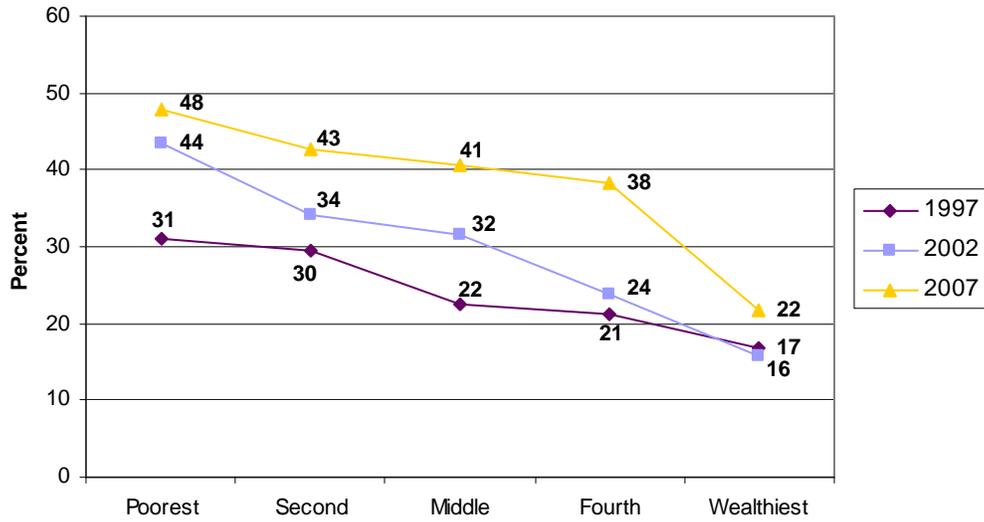
A breakdown by contraceptive methods illustrates marked differences in sources among wealth quintiles. In 2007, women who used oral contraceptives obtained their supply from the government (38%), private sector (46%), and NGOs (16%); JPFHS 2002 data reveals a similar pattern. However, further disaggregation by wealth reveals that 59 percent of public sector pill clients are in the poorest quintile while 15 percent are in the wealthiest quintile. In the commercial sector, there is a four-fold difference between pill clients in the two quintiles (20% versus 80%, respectively).

In 2007, women who used IUDs obtained their supply from the government (37%), the private sector (33%), and NGOs (30%). During this period, within the public sector, there were twice as many IUD clients from the poorest quintile compared with the wealthiest quintile (48% versus 22%, respectively) (see Figure 14). However, trends over the last decade indicate that the public sector is serving a larger percentage of IUD clients across all quintiles, which is not the case within the commercial sector.

NGOs provided IUDs to about 68 percent of clients from the poorest and second quintiles, compared with 52 percent from the fourth and wealthiest quintiles (see Figure 15).

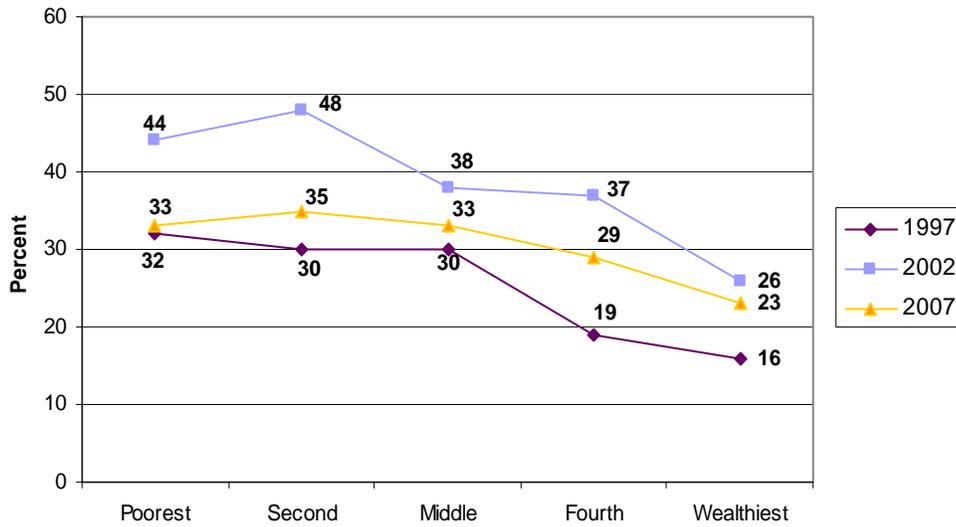
The commercial sector served approximately 55 percent of IUD clients in the wealthiest quintile in 2007, compared with 19 percent in the poorest quintile (see Figure 16). Interestingly, from 2002 to 2007, commercial sector use in the fourth and wealthiest quintiles decreased, while it increased in the poorest and second quintiles.

**Figure 14. Percent of IUD users who obtain services from the public sector (1997, 2002, 2007)**



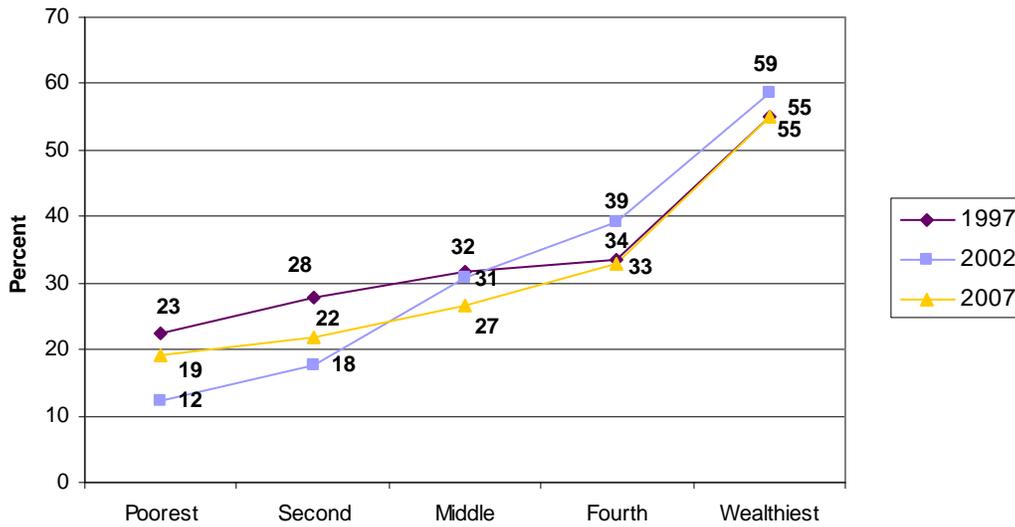
Sources: JPFHS 1997, 2002, 2007.

**Figure 15. Percent of IUD users who obtain services from NGOs (1997, 2002, 2007)**



Sources: JPFHS 1997, 2002, 2007.

**Figure 16. Percent of IUD users who obtain services from the commercial sector (1997, 2002, 2007)**

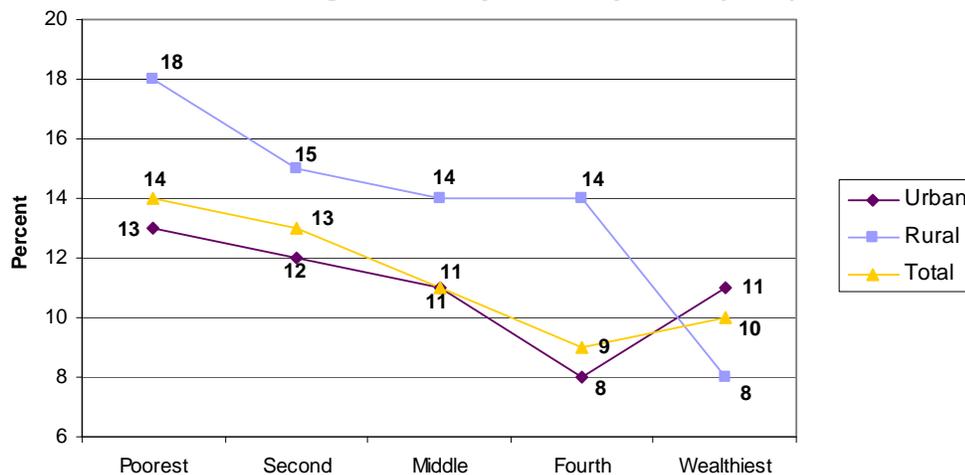


Sources: JPFHS 1997, 2002, 2007.

## Unmet Need

In Jordan, the total unmet need for family planning among currently married women of reproductive age is about 12 percent (DOS, 2008). Poor women have a higher unmet need than wealthier women—about 15 percent unmet need among women in the poorest quintile compared with 11 percent in the wealthiest quintile (see Figure 17). Progress is being made to reach the poor; from 2002 to 2007, unmet need decreased from 19 percent to 16 percent among the poorest women. However, unexpectedly, unmet need slightly increased among the wealthiest from 9 percent to 11 percent. Eight percent of women in the poorest quintile have an unmet need to space births and 7 percent have an unmet need to limit births. Across all quintiles, the unmet need for limiting has increased from 5.5 percent to 7 percent between 2002 and 2007.

**Figure 17. Percent distribution of unmet need for family planning by currently married women ages 15–49 by wealth quintile (2007)**



Source: JPFHS 2007.

In 2007, among the 7 percent of women ages 15–49 who were currently pregnant, 26 percent of their pregnancies, as well as their births in the last five years, were unintended—they were either mistimed (14.7%) or unplanned (11.3%). These figures represent a significant decline from 2002, when one-third of all births were mistimed (17.2%) or unplanned (15.9%).

When broken down by quintile, unmet need for spacing and limiting vary greatly. For example, unmet need for spacing among women in the poorest quintile is 7.9 percent, compared with 2.4 percent in the wealthiest quintile. However, unmet need for limiting is higher among the wealthiest women.

#### IV. COMPARATIVE ANALYSIS: 2002 AND 2007

From 2002–2007, the public sector market share grew substantially, while the NGO and commercial sectors market shares declined (see Table 6). The public sector gained its market share mainly at the expense of the NGO sector—perhaps due to improvements in the availability and quality of FP services and commodities, clients’ seeking free services, and/or recent problems at major NGOs such as JAFPP. The public sector market share increased from 34 percent in 2002 to 42 percent in 2007 (see Figures 18 and 19).

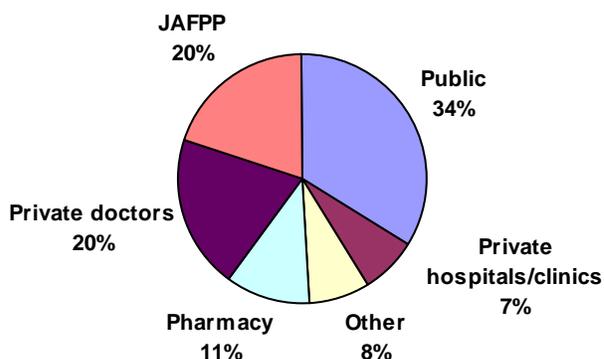
**Table 6: Use of service delivery points for FP services: 2002, 2007**

Outlets	2002		2007	
	Percent of FP Users	Number of FP Users	Percent of FP Users	Number of FP Users
<b>Public</b>	33.9	84,000	41.8	143,733
<b>NGO</b>	28.5	70,620	21.7	74,617
<b>Commercial</b>	37.3	92,425	35.9	123,445
<b>Total</b>	99.7	247,045	99.4	341,795

Notes: Table includes ever-married women ages 15–49 using all modern methods except LAM.  
 Percent of ever-married women ages 15–49 using modern family planning: JPFHS 2002, 2007.  
 Percent of women ages 15–49 ever-married: JPFHS 2002, 2007.  
 Number of women ages 15–49 in 2002 estimated by HPI-Jordan based on 2004 Jordan Census reversed to 2002 by 2.4% per year (the estimated RNI) then allocated by the age distribution in the 2004 census. Census, using the “DemProj” module in the SPECTRUM family of population models, with the Model East Life table; TFR and ASFR interpolated between the 2002 and 2007 JPFHS; the “Asia” fertility pattern; and e0 males=71.0 and e0 females=72.0; adjusted for labor migration and refugees from Iraq.  
 Number of ever-married women ages 15–49 in 2002 = 1,233,217.  
 Percent of ever-married women ages 15–49 in 2002 using modern methods (not LAM) = 36.8%.  
 Number of ever-married women ages 15–49 in 2002 using modern methods (not LAM) = 247,788.  
 Number of ever-married women ages 15–49 in 2007 = 1,547,949.  
 Percent of ever-married women ages 15–49 in 2007 using modern methods (not LAM) = 38.7%.  
 Number of ever-married women ages 15–49 in 2007 using modern methods (not LAM) = 343,858.

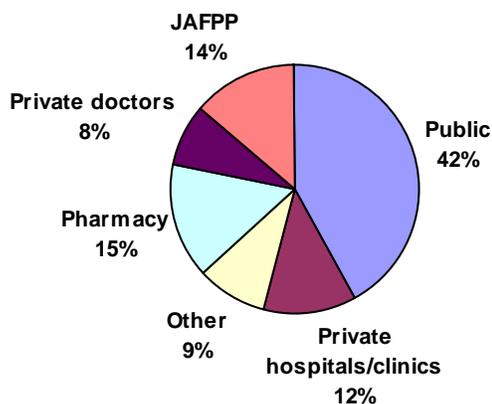
Sources: JPFHS 2002 and 2007; Jordan Department of Statistics 2004 Census.

**Figure 18. Sources of family planning methods among current users of modern methods in 2002**



Source: JPFHS 2002.

**Figure 19. Sources of family planning methods among current users of modern methods in 2007**



Source: JPFHS 2007.

The total number of FP users of modern methods obtained from the public sector, NGOs, or commercial sources also increased between 2002 and 2007. But that increase was largely due to an increase in the number of women ages 15–49 using modern methods of family planning, rather than an increase in the contraceptive prevalence rate, which was 36.8% for modern methods (excluding LAM) among ever-married women ages 15–49 in 2002 (DOS, 2003) and 38.6% for modern methods (excluding LAM) among ever-married women ages 15–49 in 2007 (DOS, 2008). However, the change in the total number of clients by sector results from the combination of the change in the number of women ages 15–49 due to population growth, the change in the contraceptive use rate, and the change in the market share in the sector. For example, the total number of FP users using modern methods who obtained services in the public sector increased from 84,000 in 2002 to 143,733 in 2007 because the total number of users increased and because the public sector market share increased from 34 percent in 2002 to 42 percent in 2007. As a result of these interacting factors, the number of public sector customers increased by 71 percent between 2002 and 2007—or an average annual growth rate of 14 percent. Conversely, the NGO sector market share decreased by 7 percentage points during the same period, although the number of users in the NGO sector increased by 3,997. Although the commercial sector market share decreased from 37 percent in 2002 to 36 percent in 2007, the number of users in the commercial sector increased by 31,020 (see Table 6).

Table 7 analyzes the change in source mix for major methods from 2002 to 2007. The public sector market share for pills increased mainly at the expense of the commercial sector—from 36.5 percent in 2002 to 38.1 percent in 2007. The commercial sector market share for pills decreased from 47 percent to 45 percent in the last five years. The public sector market share for IUDs also increased during this period but largely at the expense of the NGO sector and, to a lesser extent, the commercial sector. In the case of female sterilization, the public and commercial sectors maintained their market share at two-thirds and one-third, respectively.

**Table 7. Percent distribution of source of family planning services by currently married women ages 15–49, by method, and sector (2002 and 2007)\***

Outlets	Pills		IUDs		Female Sterilization	
	2002	2007	2002	2007	2002	2007
Public	36.5%	38.1%	28.0%	36.8%	68.0%	67.8%
NGO	16.3%	15.8%	37.7%	29.9%	0.0%	0.0%
Commercial	47.0%	45.4%	34.3%	32.8%	32.0%	32.2%
Other	-	0.6%	-	0.5%	-	0.0%
# of cases	426	875	1,349	2,308	173	393

\*Note: Percentages/cases in this table will not match those in the final report of the JPFHS 2002 because of slightly different definitions and observations that are not included in this data set because of missing variables.

Sources: JPFHS 2002 and 2007.

The source mix has changed among women in all wealth quintiles since 2002. In 2007, a higher percentage of women, including the wealthiest women, were obtaining FP methods from the public sector than in 2002. This led to reduced dependence on the NGO sector among all quintiles. Table 8 clearly indicates that the public sector’s market share increased across all quintiles from 2002 to 2007, while the opposite occurred in the NGO sector’s market. The commercial sector’s market share increased among the two poorest quintiles and declined among the other three.

**Table 8. Percent distribution of source of family planning services by currently married women ages 15–49, by wealth quintile and sector (2002 and 2007)**

Outlets	Poorest		Second		Middle		Fourth		Richest	
	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007
Public	52.2	56.8	41.2	49.5	35.9	43.8	29.5	40.9	17.9	25.6
NGO	32.7	24.3	37.4	27.9	27.9	25.6	27.2	20.6	20.2	14.0
Commercial	15.1	18.9	21.4	22.5	36.3	30.6	43.4	38.5	61.9	60.4
Total	100	100	100	100	100	100	100	100	100	100

Sources: JPFHS 2002 and 2007.

From 2002 to 2007, there was a dramatic change in source mix for specific FP methods across the quintiles. About 62 percent of women in the poorest quintiles obtained pills from the public sector in 2002, compared with 58 percent in 2007. It is encouraging that a large proportion of the poorest women who use pills are still being served by the public sector. Similarly, an increasing proportion of IUD users in 2007 (48 percent) are being served by the public sector, and the shift from the commercial to the public sector is prominent among the poorest quintiles (see Figures 13 and 15). Regarding sterilization, women across all quintiles are increasingly using public sector services. However, as few women opt for sterilization in Jordan, this shift is only slightly affecting the overall public sector market share.

## **V. DISCUSSION**

As previously stated, the goal of the RHAP is to “promote appropriate and effective use of FP/RH services and information within the 2008–2012 timeframe” through an improved policy environment for FP/RH, improved availability of affordable and equitable high-quality FP/RH services, and increased demand for FP/RH services. To meet this goal, Jordan should develop a targeted approach to reduce the discontinuation rate, minimize missed opportunities, and create conditions to increase private sector participation. However, making progress in each of these areas will require a better understanding of the factors contributing to FP uptake, unmet need, and discontinuation among specific target groups. The following discussion offers some policy and program options for the government of Jordan to consider.

### **Address Contraceptive Discontinuation**

High rates of discontinuation continue to exist in Jordan, coupled with a lack of appropriate counseling on method selection and side effects. The challenge facing Jordan is to combat a lack of awareness and misinformation regarding family planning at the provider and client levels and strengthen service delivery by focusing on counseling at the proper time and following up.

Jordanian providers are clinically well experienced and trained in family planning. So, why are health concerns and side effects cited as the two most common reasons for discontinuing among Jordanian women? Demand-side issues as well as challenges at the service delivery levels are some of the main factors behind discontinuation. Few clients in Jordan are informed of possible side effects and are not told that side effects are normal when using a particular method. Many clients lack accurate knowledge of methods and side effects. A qualitative study recently conducted in September 2008 by the Health Systems Strengthening Project may offer some explanation on what is happening at the service delivery level (Murad and El-Khoury, 2008). Interestingly, almost half of the providers interviewed in the study were unable to identify common side effects of methods. Some providers believe that side effects are rare and thus do not discuss them with clients. Many providers also advised clients to discontinue use of their FP method in response to normal side effects. The study further revealed that a large number of oral contraceptive users were not given any advice as to what to do if side effects were felt. Perhaps as a consequence, almost half of OC clients (49%) discontinued the method within the first three months of use. Such issues are further compounded because some public facilities lack proper or designated space for counseling and are often overloaded and overcrowded, leaving little or no time for counseling on various methods.

Healthcare providers should be made aware of the factors contributing to discontinuation as part of ongoing training efforts. Particular attention should be given to the high rates of discontinuation, particularly when the method is being used for birth spacing rather than maintaining family size. Clients should be advised of the advantages and disadvantages (including potential side effects) of each method so that clients can make a more informed choice on which contraceptive is right for them.

To reduce discontinuation and strengthen service delivery, healthcare providers should provide counseling before and during use, discuss possible side-effects and personal concerns, and address any misconceptions held by the client. Providers should also advise clients to continue, rather than discontinue, their FP method in response to normal side effects.

## Potential Strategies

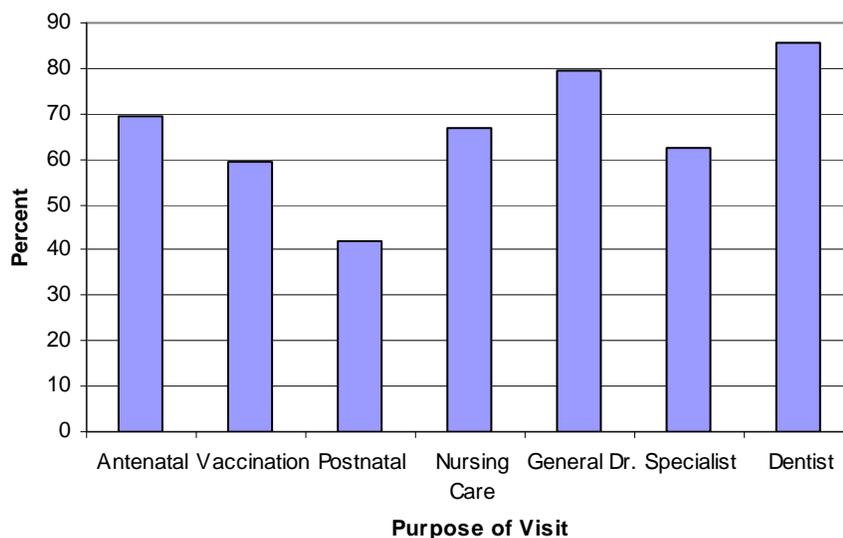
- Minimize misconceptions related to health concerns and side effects through provider training and IEC activities
- Pay particular attention to women who are choosing to shift to more traditional (and less effective) contraceptive methods to understand barriers to uptake of modern methods
- Identify and address specific factors contributing to discontinuation among IUD users
- Counsel women on the most appropriate method given their age, parity, and fertility intentions

## Reduce Missed Opportunities

Jordan's latest Reproductive Health Action Plan recognizes that reducing missed opportunities is integral to strengthening the FP/RH program, particularly for service delivery and policy. The JPFHS 2007 reveals a few areas where Jordan can maximize existing efforts—by capturing women at the time of delivery and through postnatal visits, targeting women ages 25–29 (group in which CPR declined), and seizing opportunities to expand long-acting and permanent methods, particularly for women who want to limit the number of children.

Data from the JPFHS 2007 reveal that 87 percent of women did not receive information on family planning during postnatal visits; no differences were observed between urban versus rural areas. Seventeen percent of women were provided with FP counseling at health facilities, compared with only 13 percent at hospitals. Women with more than seven children who visited a provider were almost never counseled on family planning. When considering the percentage of women who enter the health system, there are numerous opportunities to reach clients who would most likely benefit from FP/RH counseling (see Figure 20). FP services should be integrated into general practitioner; specialist; and antenatal, post-natal, and nursing care services.

**Figure 20. Percent of women accessing care in the Jordan public health system by type of care (2008)**



Source: Murad and El-Khoury, 2008.

Between 2002 (DOS, 2003) and 2007 (DOS, 2008), among the 25–29 age group, the CPR declined from 40 percent to 36 percent; and more specifically, among newly married couples and couples with their first child, it decreased from 54 percent to 50 percent. What is behind the decline in CPR among this cohort? Given that almost half of all married women will have their first child by age 24, the 25–29 age group would most likely benefit from FP counseling, particularly related to child spacing. Perhaps existing research activities should pay special attention to this group to better understand the factors behind the declining trend. In the meantime, it is likely that this group can be reached through expanded efforts to integrate FP into postnatal visits, as discussed above.

As revealed earlier in this report, between 2002 and 2007, the desire to use family planning for spacing significantly decreased (from 54% to 39%), while for limiting, the desire increased (46% to 61%). Yet in 2007, of the women who were using the withdrawal method, 16 percent were using it to limit, while 23 percent were using it for spacing births. What does this mean for expanding method choice, particularly for long-acting and permanent methods? A closer look into current IUD use shows disparities between urban and rural populations and heavy reliance among the poorest quintile (see Figure 9). Across all quintiles, IUDs are overwhelmingly the most used method, followed by withdrawal. Greater targeting to reach urban populations, specifically within the poorest quintile, could not only improve FP use but offer an expanded choice for women.

### **Potential Strategies**

- Consider integrating FP counseling into existing programs where a large proportion of women make contact with the health care system (e.g., postnatal visits, vaccinations, etc.)
- Design and implement need-based strategies, particularly for the 25–29 age group living in urban areas. These interventions may include a combination of the following:
  - Issuance of a government order to mandate counseling
  - Inclusion of FP counseling in the post-delivery discharge slip
  - Insertion of IUDs by midwives
  - Community-based interventions to involve community/family level influencers
  - Introduction of appointment and follow-up mechanisms
- Expand method choice through improved targeting of the rural population

### **Improve Private Sector Participation**

Although the private sector plays an important role in the FP market in Jordan, its market share has slightly declined since 2002. According to the JPFHS 2007, the commercial and NGO sectors serve a smaller share of modern method users, while the public sector has increased its market share from 34 to 42 percent. Quintile analysis shows that the commercial sector is largely serving the two wealthiest quintiles of the population, and the public sector is reaching the poorest two quintiles. Public sector provision of services has increased overall—from 28 percent in 1997, to 34 percent in 2002, and to 42 percent in 2007. Increased use of the public sector occurred across all quintiles; however, the shift from the private to public sector was greatest in the fourth and wealthiest quintiles. This indicates that those who previously obtained services in the private sector began to obtain free and/or subsidized services in the public sector. Among

nongovernmental providers, JAFPP and private doctors saw the largest overall decrease from 2002 to 2007.

To increase private sector participation, the public sector must establish policies and regulations that support the private sector provision of FP/RH services and products. The achievement of this goal will require increased policy discussion within the government and increased public sector dialogue with the private sector. Inclusion of the private sector in policy dialogue and strategy formulation will increase the probability that the government will adopt policies and regulations that effectively stimulate private sector growth.

### **Potential Strategies**

- Build trust, foster communication, and open dialogue between public, private, and NGO sectors to improve public-private collaboration in policymaking
- Advocate for an expanded role of the private sector
- Design mechanisms that guarantee the suitable and efficient representation of the private sector and NGOs in all committees concerned with forming policies and strategic plans
- Ensure that national policies, plans, and strategies fully recognize the role of the private sector and support the sustainability of the NGO and private sectors
- Establish policies that encourage clients to use the private sector, such as accreditation or credentialing of private providers or referrals to private providers, to increase demand in the this sector
- Design strategies such as the contracting in and contracting out of surgical contraception and IUD insertion services in the public and private sectors for greater public-private collaboration
- Design and implement community behavior change interventions and establish consumer-provider linkages based on needs, preferences, and ability to pay
- Continue to include private providers (physicians and pharmacists) in public and NGOs' FP training activities

## APPENDIX A. ADDITIONAL DATA ANALYSIS RESULTS

Table A.1. Background characteristics of respondents  
(currently married women ages 15–49) (2007)

		Wealth Index					
		Poorest	Second	Middle	Upper Middle	Wealthiest	Total
Education	No education	10%	4%	3%	1%	0%	4%
	Primary	14%	8%	6%	4%	2%	7%
	Secondary	64%	66%	61%	59%	48%	60%
	Higher	13%	22%	29%	37%	50%	30%
	Total (%)	100	100	100	100	100	100
Rural/ Urban	Urban	74%	81%	85%	90%	96%	85%
	Rural	26%	19%	15%	10%	4%	15%
	Total (%)	100	100	100	100	100	100
Parity	0	11%	9%	8%	9%	7%	9%
	1	13%	11%	10%	9%	8%	10%
	2	17%	14%	14%	12%	16%	14%
	3	15%	15%	16%	14%	19%	16%
	4	13%	15%	16%	16%	18%	16%
	5+	31%	36%	35%	40%	33%	35%
	Total (%)	100	100	100	100	100	100
Age Group	15–19	3%	3%	2%	2%	1%	2%
	20–24	18%	14%	14%	7%	7%	12%
	25–29	23%	20%	19%	16%	14%	19%
	30–34	21%	24%	20%	21%	16%	21%
	35–39	16%	18%	20%	22%	20%	19%
	40–44	12%	14%	16%	19%	24%	17%
	45–49	6%	7%	10%	12%	19%	11%
	Total (%)	100	100	100	100	100	100
Region	Central	49%	56%	63%	70%	84%	64%
	North	40%	34%	27%	22%	12%	27%
	South	11%	10%	9%	8%	4%	8%
	Total (%)	100	100	100	100	100	100

Source: JPFHS 2007.

**Table A.2. Contraceptive method use among married women by wealth quintile and place of residence**

Urban						
	Poorest	Second	Middle	Upper Middle	Wealthiest	Total
Not using	51%	45%	40%	36%	38%	42%
Pill	9%	7%	8%	10%	9%	9%
IUD	18%	21%	24%	27%	25%	23%
Injectable	1%	1%	0%	0%	0%	1%
Diaphragm	0%	0%	0%	0%	0%	0%
Male condom	4%	6%	6%	5%	6%	5%
Female sterilization	2%	4%	2%	5%	6%	4%
Traditional methods	13%	15%	17%	14%	14%	15%
LAM	2%	2%	1%	1%	0%	1%
Suppositories	0%	0%	0%	0%	1%	0%
Rural						
	Poorest	Second	Middle	Upper Middle	Wealthiest	Total
Not using	57%	51%	51%	45%	39%	48%
Pill	7%	8%	9%	5%	7%	7%
IUD	11%	14%	17%	21%	28%	18%
Injectable	3%	1%	1%	1%	1%	1%
Male condom	4%	3%	3%	5%	4%	4%
Female sterilization	4%	4%	3%	3%	5%	4%
Traditional methods	12%	17%	13%	19%	15%	16%
LAM	2%	1%	3%	2%	1%	2%
Suppositories	0%	0%	0%	1%	0%	0%

Source: JPFHS 2007.

**Table A.3. Contraceptive prevalence rate (CPR) by method type in 2007**

	Age Group							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
No methods	76%	56%	50%	38%	36%	33%	47%	43%
Folk methods	0%	0%	0%	0%	0%	1%	0%	0%
Traditional methods	9%	11%	14%	16%	16%	18%	13%	15%
Modern methods	15%	33%	36%	47%	48%	48%	40%	41.9%

Source: JPFHS 2007.

**Table A.4. Source for most recent method used in public health centers by place of residence, wealth quintile, and region**

		Government and other public health facilities	University	Royal Medical Services	Total government
<b>By place of residence</b>					
Urban	%	67%	93%	79%	67%
	Count	1215	20	108	1343
Rural	%	33%	7%	21%	33%
	Count	587	4	62	653
<b>By quintile</b>					
Poorest	%	29%	8%	18%	28%
	Count	522	4	36	562
Second	%	25%	19%	10%	24%
	Count	444	3	27	474
Middle	%	20%	6%	26%	21%
	Count	368	3	47	418
Upper Middle	%	17%	46%	25%	18%
	Count	309	10	43	362
Wealthiest	%	9%	21%	20%	9%
	Count	159	4	17	180
<b>By region</b>					
Central	%	33%	55%	67%	33%
	Count	602	10	50	662
North	%	29%	44%	13%	29%
	Count	528	13	35	576
South	%	37%	1%	20%	38%
	Count	672	1	85	758
<b>By highest education level</b>					
No education	%	8%	1%	4%	8%
	Count	136	1	18	155
Primary	%	9%	3%	10%	10%
	Count	167	1	29	197
Secondary	%	60%	84%	60%	59%
	Count	1082	14	91	1187
Higher	%	23%	12%	25%	23%
	Count	417	8	32	457
<b>Total</b>	%	100%	100%	100%	100%
	Count	1802	24	170	1996

Source: JPFHS 2007.

**Table A.5. Source for most recent method used in private health centers  
by place of residence, wealth quintile, and region**

		Private hospital/clinic	Private doctor	Private pharmacy	Other private	Total Private
<b>By place of residence</b>						
Urban	%	91%	91%	93%	91%	78%
	Count	291	224	339	19	873
Rural	%	9%	9%	7%	9%	22%
	Count	96	76	90	4	266
<b>By quintile</b>						
Poorest	%	8%	12%	7%	12%	14%
	Count	57	49	54	3	163
Second	%	12%	11%	10%	4%	17%
	Count	74	55	65	3	197
Middle	%	13%	16%	19%	33%	22%
	Count	84	66	89	6	245
Upper Middle	%	22%	26%	28%	37%	23%
	Count	78	63	112	6	259
Wealthiest	%	45%	36%	36%	14%	24%
	Count	94	67	109	5	275
<b>By region</b>						
Central	%	77%	74%	80%	84%	46%
	Count	161	124	223	13	521
North	%	18%	20%	15%	15%	28%
	Count	117	104	87	8	316
South	%	5%	6%	6%	1%	27%
	Count	109	72	119	2	302
<b>By highest education level</b>						
No education	%	2%	1%	01%	3%	4%
	Count	26	9	11	2	48
Primary	%	8%	4%	3%	4%	7%
	Count	34	20	22	1	77
Secondary	%	59%	52%	55%	53%	55%
	Count	226	151	235	10	622
Higher	%	31%	42%	40%	40%	34%
	Count	101	120	161	10	392
<b>Total</b>	%	100%	100%	100%	100%	100%
	Count	387	300	429	23	1139

Source: JPFHS 2007.

**Table A.6. Source for most recent method used provided by NGO sector, by place of residence, wealth quintile, and region**

		JAFPP	UNRWA clinic	Other NGO	Total NGO
<b>By place of residence</b>					
Urban	%	85%	97%	88%	78%
	Count	467	193	6	666
Rural	%	15%	3%	12%	22%
	Count	167	17	2	186
<b>By quintile</b>					
Poorest	%	14%	24%	3%	21%
	Count	112	69	1	182
Second	%	19%	29%	3%	25%
	Count	151	62	1	214
Middle	%	20%	28%	6%	22%
	Count	139	50	1	190
Upper Middle	%	25%	16%	82%	19%
	Count	132	24	4	160
Wealthiest	%	21%	3%	6%	12%
	Count	100	5	1	106
<b>By region</b>					
Central	%	64%	75%	92%	46%
	Count	255	133	5	393
North	%	32%	24%	3%	41%
	Count	277	72	1	350
South	%	5%	0%	5%	13%
	Count	102	5	2	109
<b>By highest education level</b>					
No education	%	9%	1%	3%	2%
	Count	11	2	1	14
Primary	%	8%	11%	0%	9%
	Count	52	21	0	73
Secondary	%	61%	71%	91%	63%
	Count	383	149	6	538
Higher	%	30%	17%	6%	27%
	Count	188	38	1	227
<b>Total</b>	%	100%	100%	100%	100%
	Count	634	210	8	852

Source: JPFHS 2007.

**Table A.7. Source for most recent method by age**

		Government and other public health facilities	University	Royal Medical Services	Private hospital/clinic	Private doctor	Private pharmacy	Other private	JAFPP	UNRWA clinic	Other NGO	Total
15–19	%	1%	0%	0%	1%	0%	2%	0%	0%	0%	0%	1%
	Count	10	0	0	1	0	7	0	1	2	0	24
20–24	%	8%	0%	5%	6%	5%	10%	1%	10%	16%	0%	8%
	Count	139	0	5	24	22	47	1	43	35	0	318
25–29	%	18%	4%	5%	15%	14%	20%	20%	12%	21%	79%	17%
	Count	321	3	7	58	52	91	2	86	46	3	670
30–34	%	22%	7%	15%	16%	29%	30%	25%	21%	25%	0%	22%
	Count	405	3	21	69	68	110	5	152	49	0	880
35–39	%	23%	25%	22%	17%	21%	20%	34%	25%	18%	9%	23%
	Count	407	6	32	83	74	88	5	161	38	2	894
40–44	%	19%	10%	21%	27%	20%	15%	18%	20%	15%	9%	19%
	Count	334	4	46	100	55	62	9	131	32	2	769
45–49	%	10%	53%	31%	18%	10%	3%	1%	11%	5%	3%	11%
	Count	186	8	59	52	29	24	1	60	8	1	430
<b>Total</b>	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Count	1802	24	170	387	300	429	23	634	210	8	3967

Source: JPFHS 2007.

**Table A.8. Market share of contraceptive methods in 2007 by wealth quintile**

		Poorest	Second	Middle	Upper Middle	Wealthiest	Total
Pill	Government	59%	48%	40%	33%	15%	38%
	NGOs	22%	26%	19%	14%	2%	16%
	Commercial	20%	26%	42%	54%	82%	46%
IUD	Government	48%	43%	41%	38%	22%	37%
	NGOs	33%	35%	33%	29%	23%	30%
	Commercial	19%	22%	27%	33%	55%	33%
Female sterilization	Government	77%	79%	73%	68%	53%	68%
	Commercial	23%	21%	27%	32%	47%	32%

Source: JPFHS 2007.

**Table A.9. Market share of contraceptives from 1997–2007 by wealth quintile**

	Poorest			Second			Middle			Upper Middle			Wealthiest		
	2007	2002	1997	2007	2002	1997	2007	2002	1997	2007	2002	1997	2007	2002	1997
Government	57%	52%	38%	50%	41%	32%	44%	36%	29%	41%	29%	24%	26%	18%	17%
NGOs	24%	33%	31%	28%	37%	29%	26%	28%	33%	21%	27%	35%	14%	20%	20%
Commercial	19%	15%	31%	23%	21%	39%	31%	36%	38%	39%	43%	42%	60%	62%	63%

Source: JPFHS 2007.

**Table A.10. Use of IUDs and traditional methods by place of residence, region, and education level**

	Place of residence		Quintiles					Region			Education level			
	Urban	Rural	Poorest	Second	Middle	Upper middle	Wealthiest	Central	North	South	No education	Primary	Secondary	Higher
IUD	88%	12%	14%	17%	20%	25%	23%	67%	26%	7%	2%	7%	60%	32%
Traditional	85%	15%	17%	19%	26%	18%	20%	61%	31%	8%	2%	6%	60%	32%

Source: JPFHS 2007.

**Table A.11. Last method discontinued in the past five years by place of residence**

	Pill	IUD	Injectables	Condom	LAM	Suppositories	Total
Urban	23%	29%	2%	8%	12%	1%	100%
Rural	21%	26%	3%	7%	13%	0%	100%
<b>Total</b>	22%	28%	2%	8%	13%	1%	100%

Source: JPFHS 2007.

**Table A.12. Reasons for discontinuation by contraceptive method**

	Pill	IUD	Injectables	Condom	Traditional methods	Other	Norplant	LAM	Suppositories	Total
Became pregnant	12%	7%	2%	25%	38%	0%	0%	7%	19%	17%
Wanted to become pregnant	44%	52%	31%	46%	46%	100%	16%	16%	26%	43%
Husband disapproved	1%	0%	0%	7%	1%	0%	0%	0%	0%	1%
Side effects	11%	10%	18%	1%	1%	0%	25%	0%	8%	6%
Health concerns	19%	23%	36%	6%	1%	0%	17%	2%	5%	13%
Access, availability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wanted more effective method	3%	1%	4%	8%	8%	0%	42%	33%	25%	8%
Inconvenient to use	1%	1%	5%	1%	1%	0%	0%	3%	1%	1%
Infrequent sex	5%	1%	0%	3%	2%	0%	0%	1%	15%	2%
Cost	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fatalist	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Difficulty w/ pregnancy/ menopause	1%	2%	1%	2%	1%	0%	0%	0%	0%	1%
Marital dissolution	1%	1%	0%	0%	1%	0%	0%	0%	0%	1%
Other	1%	2%	1%	1%	1%	0%	0%	24%	0%	4%
End of breastfeeding period	0%	0%	0%	0%	0%	0%	0%	14%	0%	2%
Spouse traveling or ill	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: JPFHS 2007.

**Table A.13. Reason for discontinuation by place of residence**

	<b>Urban</b>	<b>Rural</b>	<b>Urban and rural</b>
Became pregnant	17%	16%	17%
Wanted to become pregnant	43%	42%	43%
Husband disapproved	1%	2%	1%
Side effects	6%	8%	6%
Health concerns	13%	12%	13%
Access, availability	0%	0%	0%
Wanted more effective method	8%	8%	8%
Inconvenient to use	1%	1%	1%
Infrequent sex	3%	2%	2%
Cost	0%	0%	0%
Fatalist	0%	0%	0%
Difficulty w/pregnancy/ menopause	1%	1%	1%
Marital dissolution	1%	1%	1%
Other	4%	4%	4%
End of bf period	2%	4%	2%
Spouse traveling or ill	0%	0%	0%
Don't know	0%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: JFHHS 2007.

**Table A.14. Cost (in JD) of contraceptives by place of residence, wealth quintile, highest education level**

	Place of residence		Quintile					Highest education level				All users
	Urban	Rural	Poorest	Second	Middle	Upper middle	Wealthiest	No education	Primary	Secondary	Higher	
Free	45%	59%	65%	61%	52%	42%	24%	65%	52%	49%	40%	47%
0-100	51%	38%	33%	36%	45%	54%	69%	28%	46%	47%	57%	49%
101 or more	4%	3%	2%	4%	3%	4%	8%	7%	3%	5%	3%	4%
<b>Total</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: JPFHS 2007.

**Table A.15. Cost (in JD) of contraceptives by method**

	Pill	IUD	Injectables	Diaphragm	Condom	Female sterilization	Norplant	All users
Free	52%	38%	80%	0%	72%	48%	70%	47%
0 to 100	47%	60%	20%	100%	27%	17%	30%	49%
101 or more	1%	1%	0%	0%	1%	35%	0%	4%
<b>Total</b>	100%	100%	100%	100%	100%	100%	100%	100%

Source: JPFHS 2007.

**Table A.16. Cost (in JD) of contraceptives by provider**

	Government and other public health facilities	NGO	Commercial	All users
Free	81%	44%	7%	47%
0 to 100	17%	55%	84%	49%
101 or more	2%	1%	10%	4%
<b>Total</b>	100%	100%	100%	100%

Source: JPFHS 2007.

**Table A.17. Clients told about family planning methods at postnatal visits by place of residence and wealth quintile**

	Place of Residence		Quintile					All Users
	Urban	Rural	Poorest	Second	Middle	Upper Middle	Wealthiest	
No	86%	88%	86%	87%	89%	88%	83%	87%
Yes	14%	12%	14%	13%	12%	12%	17%	13%
<b>Total</b>	100%	100%	100%	100%	100%	100%	100%	100%

Source: JPFHS 2007.

**Table A.18. Clients told about family planning methods at postnatal visits**

	Intention to Use			Contraceptive Method Used			
	Use later	Unsure	Does not intend to use	No Method	Folk	Traditional	Modern
No	79%	5%	17%	37%	0%	15%	48%
Yes	88%	1%	11%	24%	0%	18%	58%
<b>Total</b>	79%	4%	16%	36%	0%	15%	49%

Source: JPFHS 2007.

**Table A.19. Use of contraceptive methods among married women who did or did not receive services by method type**

	Received prenatal care		Delivered in a health facility		Received DPT I	
	No	Yes	No	Yes	No	Yes
No method	46%	37%	30%	37%	72%	41%
Folk method	0%	0%	0%	0%	0%	0%
Traditional method	11%	17%	22%	17%	6%	19%
Modern method	43%	46%	48%	46%	22%	40%
<b>Total</b>	100%	100%	100%	100%	100%	100%

Source: JPFHS 2007.

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