Reducing Discontinuation of Contraceptive Use and Unmet Need for Family Planning: Policy Options

The Hashemite Kingdom of Jordan has experienced a remarkable decline in its total fertility rate (TFR), from 7.4 children per woman in 1976 to 3.7 in 2002. Since 2002, however, fertility has remained essentially unchanged. At the current fertility level, a woman would give birth to an average of 3.8 children during her lifetime. At this level, Jordan’s population would double in size in about 30 years. This rapid population growth would place continued pressure on the environment, water availability, food security, housing, employment, and health and education services.

This policy brief discusses the potential impact of helping women to achieve their childbearing desires on Jordan’s ability to achieve its future fertility goals and slow population growth. Two actions that could lower fertility rates are reducing the rate at which women discontinue contraceptive use¹ and ensuring that women who want to limit or space births have access to family planning (FP) services, thus filling their unmet need for these services.² The brief also discusses the specific policy recommendations that would bring about these changes.

Factors Affecting Fertility and Contraceptive Prevalence Rates

A 2005 study by John Bongaarts found that increasing the contraceptive prevalence rate (CPR),³ decreasing the demand for children, reducing unintended births, and increasing the level of socio-economic development are the key determinants of a continued fertility decline.⁴ He found that stalling in the TFR decline was accompanied by leveling off in the increase in CPR, demand for FP (measured by the unmet need for FP), and the wanted fertility rate.⁵ Jordan is following the pattern for stalled TFR described in Bongaarts’ study: modern CPR has remained constant since 2002 at 42 percent, while use of traditional methods has increased from 15 percent in 2007 to 17 percent in 2009. Unmet need for FP has also remained constant since 2002 at 11–12 percent of married women of reproductive age (MWRA). The number of children women say they want has increased from an average of 2.6 children per woman to 3.0. These data indicate that the decline in TFR has stalled (see Table 1).

The stall in fertility decline will prevent Jordan from reaching its goal of replacement-level fertility (an average of 2.1 children per woman) by 2030. High fertility leads to continued population growth. According to the USAID-funded Health Policy Initiative, Jordan’s population will increase from an estimated 6 million people in 2009 to 10.3 million in 2030 if the TFR remains constant at 3.8 children per woman. Alternatively, if the TFR decreases from 3.8 in 2009 to 2.1 in 2030, the population would increase to only 8.9 million people in 2030.⁶ The difference of 1.4 million people in 2030 would substantially ease the burden on Jordan’s resources and would help the country to achieve its development goals.

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¹ This rate measures the probability of discontinuing use of a FP method within one year of the method being adopted.

² Unmet need for family planning is defined as the percentage of fertile, currently married women of reproductive age who want to space their next birth or stop childbearing entirely but are not currently using any contraceptive method.

³ The contraceptive prevalence rate is the percent of reproductive-age women who are using a contraceptive method.


⁵ The wanted fertility rate is the proportion of births that women report were wanted at the time of their birth in relation to total births.

⁶ DemProj, Version 4, A Computer Program for Making Population Projection—a component of the SPECTRUM suite of policy models, originally developed by the Futures Group under the USAID-funded POLICY Project, is periodically updated and can be found and downloaded at http://www.healthpolicyinitiative.com.
**Table 1. Trends in Fertility Indicators—Currently Married Women of Reproductive Age (15-49), Jordan 1990–2009**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total fertility rate (TFR) (women ages 15-49)</td>
<td>5.6</td>
<td>4.4</td>
<td>3.7</td>
<td>3.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Wanted total fertility rate</td>
<td>3.9</td>
<td>2.9</td>
<td>2.6</td>
<td>2.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Unintended total fertility rate</td>
<td>1.1</td>
<td>1.5</td>
<td>1.1</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Percent of births reported by women as unintended</td>
<td>20.6</td>
<td>16.9</td>
<td>15.9</td>
<td>11.3</td>
<td>10.8</td>
</tr>
<tr>
<td>Percent of MWRA using any contraceptive method:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any “modern” method</td>
<td>26.9</td>
<td>37.7</td>
<td>41.2</td>
<td>41.9</td>
<td>42.0</td>
</tr>
<tr>
<td>Any “traditional” method</td>
<td>13.1</td>
<td>14.9</td>
<td>14.6</td>
<td>15.2</td>
<td>17.2</td>
</tr>
<tr>
<td>All methods</td>
<td>40.0</td>
<td>52.6</td>
<td>55.8</td>
<td>57.1</td>
<td>59.3</td>
</tr>
<tr>
<td>Unmet need for family planning:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmet need for spacing</td>
<td>7.8</td>
<td>7.4</td>
<td>5.6</td>
<td>4.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Unmet need for limiting</td>
<td>14.6</td>
<td>6.8</td>
<td>5.5</td>
<td>7.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Total unmet need for family planning</td>
<td>22.4</td>
<td>14.2</td>
<td>11.0</td>
<td>11.9</td>
<td>11.2</td>
</tr>
<tr>
<td>Ideal number of children among all MWRA</td>
<td>4.4</td>
<td>4.2</td>
<td>4.3</td>
<td>4.0</td>
<td>4.2</td>
</tr>
<tr>
<td>First-year discontinuation rate (all reasons)</td>
<td>44.0</td>
<td>48.9</td>
<td>42.0</td>
<td>39.7</td>
<td>45.1</td>
</tr>
</tbody>
</table>

Source: Jordan Population and Family Health Surveys (JPFHS) 1990-2009

**Discontinuation and Unmet Need in Jordan**

When a couple discontinues using family planning, even for a brief period, the woman may become pregnant unintentionally. Similarly, when a woman wants to limit or space births but is not using contraception, she runs the risk of becoming pregnant unintentionally. In both situations, these unintended pregnancies often lead to larger-than-intended family sizes and contribute to higher rates of overall fertility.

**Discontinuation of Contraceptive Use**

Many women discontinue contraceptive use within one year of initiating a method. The one-year probability of discontinuing the use of FP decreased from 48.9 percent in 1997 to 39.7 percent in 2007 but in 2009 rose to 45.1 percent. More than half of the women using injectables, male condoms, and oral contraceptives discontinued use of their method within one year. The IUD had the lowest discontinuation rate; 15 percent of women discontinued its use within a year.

The major reasons that women discontinue use of a contraceptive method are a desire to become pregnant, method failure (causing unintended pregnancy), desire for a more effective method, side effects, and health concerns (see Table 2). Reasons for contraceptive discontinuation have changed in recent years, with more women stopping contraceptive use in order to become pregnant or because they experienced side effects.

**Unmet Need for FP**

According to the 2009 Jordan Population and Family Health Survey (JPFHS), 73 percent of married women in Jordan may be considered to have a potential need for family planning services for either limiting or spacing births; 42 percent of married women do not want to have any more children at any time in the future and 31 percent want to delay having another child for at least two years. Of the 73 percent of married women with a need for family planning, 59 percent are currently using a family planning method, leaving 11 percent of women with an unmet need for family planning. Addressing unmet need for FP will respond to the GoJ’s objective to limit the pace and level of population growth in order to improve the context for economic development, as well as the health and “rights-based” objective of assisting couples to achieve their reproductive goals.

Of those currently married women who are not using a contraceptive method, more than half (58%) intend to use a method in the future, while 37 percent do not intend to use a method, and 5 percent are unsure (JPFHS 2009). Of those women who are not using family planning, seven in 10 gave reasons related to fertility, such as wanting more children or being infertile. About one in five women cited health concerns or fear of side effects as their reason for not using FP (see Graph 1). The proportion of women who cited fertility-related reasons for contraceptive nonuse
Table 2. Major Reasons for Discontinuation of Contraceptive Use

<table>
<thead>
<tr>
<th>Method</th>
<th>Method failure</th>
<th>Desire to become pregnant</th>
<th>Wanted more effective method</th>
<th>Side effects</th>
<th>Health concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pill</td>
<td>12.2</td>
<td>12.7</td>
<td>38.3</td>
<td>34.4</td>
<td>3.6</td>
</tr>
<tr>
<td>IUD</td>
<td>6.3</td>
<td>6.2</td>
<td>49.3</td>
<td>46.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Injectables</td>
<td>6.2</td>
<td>3.3</td>
<td>28.1</td>
<td>16.3</td>
<td>5.8</td>
</tr>
<tr>
<td>Male condom</td>
<td>23.5</td>
<td>18.4</td>
<td>38.8</td>
<td>37.4</td>
<td>10.4</td>
</tr>
<tr>
<td>LAM</td>
<td>7.3</td>
<td>6.9</td>
<td>7.3</td>
<td>10.0</td>
<td>38.5</td>
</tr>
<tr>
<td>Periodic abstinence</td>
<td>43.6</td>
<td>44.6</td>
<td>43.6</td>
<td>32.5</td>
<td>8.6</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>35.1</td>
<td>30.7</td>
<td>35.1</td>
<td>40.1</td>
<td>10.9</td>
</tr>
<tr>
<td>All methods</td>
<td>17.4</td>
<td>17.1</td>
<td>17.4</td>
<td>34.7</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Note: Proportion of currently married women of reproductive age who reported discontinuing use of a contraceptive method in the five years preceding the survey. Source: JPFHS 2007 and 2009.

increased from 2007 to 2009, while the proportion of those citing method-related reasons declined.

What are the issues?

Fear of side effects
Many women do not use contraceptives, discontinue their use, or use less effective methods because they are afraid of side effects and concerned about health issues. Among those women who intend to use a contraceptive method in the future, the majority cite the IUD or oral contraceptives as their preferred method. Few women intend to use other highly effective FP methods such as female sterilization, injectables, and implants. Women seem especially reluctant to use injectables, and the discontinuation rate for injectables is high: two-thirds of the women who discontinued their use in the previous five years cited side effects and health concerns as their reason for discontinuation. While many women report that they have been informed about side effects of their chosen method and counseled on how to cope with side effects, this information does not appear to have alleviated their concerns.7

Inadequate counseling of clients and training of providers
Virtually all women who discontinue using a contraceptive method try another method later. The challenge is to reduce the interval of non-use and assist each woman to select a method that suits her needs and use it effectively. However, this requires effective counseling and a provider who is available and acceptable to the women, presents unbiased information to the client, and has the time and motivation to do so. Women often receive inadequate counseling on FP options, especially during interactions with health providers during clinic visits, delivery, and infant and child health visits. For example, seven in ten women reported that they had not discussed FP with field workers or at health facilities during the last 12 months.8

Another factor that leaves women at risk of unintended pregnancy is that health providers usually do not offer women IUD insertion immediately following delivery. Although studies have shown that post-delivery IUD insertion is safe, many providers do not believe it should be done.9

Shortage of female service providers
Jordan has a limited number of female physicians, and most are based in urban areas. There are approximately 326 female physicians working in the private sector, 106 working in the MOH health care centers, and 21 working at JAFPP. Furthermore, nine in 10 (88%) of the female physicians are located in Amman, Zarqa, Irbid, Balqa, and Madaba. Many of the female physicians are not trained to insert IUDs, while others are unwilling to insert IUDs or are in administrative positions. This leaves very few female physicians available to meet the needs of the rest of the country.

Demand for large family size
The ideal family size in Jordan is approximately four children. More than one-third of the women who

discontinued contraceptive use did so because they wanted to become pregnant, according to the 2009JPFHS. There is limited opportunity to reduce the high demand for children in the short-term, and it is unlikely that the pressure for a first birth soon after marriage, for at least two children, and for at least one boy, can be reduced. Nevertheless, the demand for children must be reduced if the HKJ is to meet its population goals.

**What are the impacts of reducing discontinuation rates and unmet need?**

As stated earlier, the level of unmet need for family planning as well as use of contraception has specific impacts on unintended pregnancies and births and ultimately on the total fertility rate. How would reducing Jordan’s unmet need affect the TFR, contraceptive effectiveness, and FP program requirements?

Two scenarios were developed to address these questions. Both scenarios assume that all fertility determinants remain constant. The only difference between the scenarios is the proportion of unmet need that is met. The first scenario assumes that the current level of unmet need remains constant. The second scenario assumes that 50 percent of unmet is satisfied. These scenarios were used to assess the impacts of satisfying unmet need on the contraceptive prevalence rate, the number of family planning users, the number of unintended pregnancies, the total number of births, couple years of protection (CYP), and the resulting TFR.

The findings show that reducing unmet need for family planning by 50 percent would increase the CPR from 59.3 percent to 64.9 percent and increase the CYP from 345,000 to 458,000 in 2009. Births would also be reduced as a result of satisfying unmet need; there would be 171,000 births under Scenario A and 154,000 under Scenario B. Finally, reducing the unmet need has the effect of reducing the TFR from 3.8 to 3.4 (see Table 3) and reducing the annual rate of natural population growth from 2.71 percent to 2.42 percent.

Based on the 1990 JPFHS, Ann Blanc et al. estimated that Jordan’s TFR in 1990 would have been reduced by 15 percent, from 5.6 births per woman to 4.7 if all discontinuation due to contraceptive failure were eliminated.

In a similar analysis of the 2007 JPFHS, the Health Policy Initiative project/Jordan estimated that the TFR in 2009 would have been reduced by 14 percent from 3.8 children per woman to 3.3 if all discontinuation due to contraceptive failure were eliminated.

Conservatively assuming that contraceptive failure might be reduced by half, this would reduce the TFR by

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10 CYP is the estimated years of contraceptive protection provided by the FP program, based on the volume of all contraceptives sold or distributed free of charge to clients and taking into account the relative effectiveness of various methods.


12 Winfrey, William, the Futures Institute, August 2009, prepared for the Health Policy Initiative project/Jordan, Futures Group International.
an additional 0.3 points, bringing the total fertility rate down to 3.1 by both reducing discontinuation and unmet need (see Table 3).

### Table 3. Summary of Main Findings, 2009

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Scenario A: no change in unmet need</th>
<th>Scenario B: 50% reduction in unmet need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contraceptive prevalence rate (%)</td>
<td>59.3</td>
<td>64.9</td>
</tr>
<tr>
<td>Modern CPR (%)</td>
<td>42.1</td>
<td>46.1</td>
</tr>
<tr>
<td>Total number of FP users</td>
<td>471,000</td>
<td>516,000</td>
</tr>
<tr>
<td>Modern method users</td>
<td>335,000</td>
<td>366,000</td>
</tr>
<tr>
<td>Couple Years of Protection</td>
<td>345,000</td>
<td>458,000</td>
</tr>
<tr>
<td>Unintended pregnancies</td>
<td>119,000</td>
<td>109,000</td>
</tr>
<tr>
<td>Births</td>
<td>171,000</td>
<td>154,000</td>
</tr>
<tr>
<td>TFR (with only unmet need reduced)</td>
<td>3.80</td>
<td>3.39</td>
</tr>
<tr>
<td>TFR (with both unmet need and discontinuation rates reduced)</td>
<td>3.80</td>
<td>3.10</td>
</tr>
<tr>
<td>Rate of natural increase (%)</td>
<td>2.71</td>
<td>2.42</td>
</tr>
<tr>
<td>Contraceptive prevalence rate (%)</td>
<td>59.3</td>
<td>64.9</td>
</tr>
<tr>
<td>Modern CPR (%)</td>
<td>42.1</td>
<td>46.1</td>
</tr>
</tbody>
</table>

Source Files: MMConstant+CPRConstant+UnmetNeedConstant.PJN; MMConstant+CPRConstant+UnmetNeedMet.PJN; MM50%+CPRConstant.PJN

### Policy Options

Jordan’s population is highly urbanized, women are well educated, and the age at marriage has increased significantly. Yet fertility has remained high, keeping the country at an early stage of the demographic transition from high to low fertility. To reap the benefits of the demographic transition, such as a smaller proportion of dependents per worker, Jordan must lower its fertility rate.

The 2009 JPFHS data indicate that 17 percent of married women of reproduction age, or 138,000 women, used less effective traditional methods to regulate their fertility. As a result of contraceptive failure, an estimated 68,768 unintended pregnancies resulted. Since contraceptive failure is a function of the correct and consistent use of an FP method, plus the effectiveness of the method, an effective FP program should encourage use of the most effective method that meets each woman’s personal requirements based on her age, parity, health, economic situation, desire to limit or postpone additional births, and her family circumstances. This will require that FP programs provide careful and personalized counseling to help a woman choose the method that best fits her needs. Providers need to teach women to use the method correctly and ensure that a comprehensive choice of methods at affordable prices is available in all locations.

Another approach would be to use nurse midwives more extensively in the provision of family planning services. Midwives are available and have been trained to insert IUDs. In a pilot project, 190 midwives were trained and began inserting IUDs in rural areas in 2003. The percentage of IUDs inserted by midwives has increased from 20 percent in 2004 to 46 percent in 2009 as shown in Graph 2. While the percentage of IUDs inserted by midwives and physicians has equalized at the national level, a different story is seen at the directorate level. In 14 out of 20 health directorates, midwives have inserted more IUDs than physicians have. For women living in Koura, Mafraq, Shounah Janoobiyah, and Ma’an, midwives insert all the IUDs provided.

When complications were reviewed, midwives fared as well or better than trained physicians. This mirrors the findings in other international studies. Even though midwives are inserting nearly half of the IUDs, the project has never progressed past the pilot phase because the necessary policy change has never happened.

In addition, the many social, cultural reasons and economic reasons for the high demand for children in Jordan suggest that the HKJ should address this issue through a long-term demand side approach with public information and communication programs, education programs in the schools on the impact of population and development at the national and family levels, and outreach to senior government officials and the public to highlight the need to include population factors in development planning. The goal will be to encourage movement towards the adoption of a smaller family size ideal at the household, extended family, and community levels. However, in the longer-term the HKJ can seek to support a climate to empower women to resist pressures to have additional children, increase economic security for the elderly, and support employment and business opportunities for women.

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13 The demographic transition marks the shift from high birth and death rates to low birth and death rates as a country develops from an agrarian to an industrialized economic system.


With the RHAP-II approved, the HKJ should focus on implementing the policies and corresponding activities needed to help Jordanian women meet their reproductive goals and thus achieve the national TFR goals related to development. Specifically, the Higher Population Council requests H.E. the Minister of Health to do the following:

**Issue: Fear of side effects/health concerns**

**Recommendations**
- Revise the FP program to strengthen counseling approaches to address fear of side effects, improve follow-up, and take advantage of missed opportunities to serve women after delivery.
- Address women’s perceptions and misconceptions on a large scale through mass media, health education programs, and school and university programs. In addition, undertake targeted health education campaigns in schools and universities.
- Expand the variety of contraceptives available by introducing new family planning methods.

**Issue: Inadequate counseling and training**

**Recommendations**
- Develop and implement a staged action plan to restructure and/or revise the MoH protocols that focus on counseling women on FP options and use with follow-up by community workers and volunteers, or through telephone or text messages with a monitoring and evaluation system that will capture discontinuation, failures, and incorrect FP use.
- Develop and implement a mandatory training package on family planning methods and counseling for all relevant health workers, such as physicians, midwives, and social workers. This training package should include other methods that may be added to the current cafeteria of choices, e.g., Implanon.
- Offer training in IUD insertion to female physicians who are interested and who practice in relevant fields, with a commitment to cover a minimum number of clinic sessions for IUD insertions. Public sector physicians could be assigned to clinic sessions as needed.
- Continue training midwives to insert IUDs with the same quality as provided by female physicians, especially those midwives who are already located in rural areas with clients who are satisfied with the services. This is the most cost-effective and fastest approach to reduce unmet need.

**Issue: Shortage of female service providers**

**Recommendations**
- Create a public-private partnership whereby trained private sector female physicians are contracted by the government to provide services at a discounted rate to clients referred from the public health clinic.
- Develop, implement and monitor a management plan to provide adequate physician and nurse coverage in remote areas, including checks to ensure attendance.
- Reactivate retired nurses and midwives living in rural areas and provide a brief training on providing FP services in their areas. Link them to one of the closest health centers and compensate their time by providing incentives to them.
• Provide innovative incentives for female providers to work in rural areas.
• Provide incentives to females to train as physicians.
• Sign a decree that permits nurse midwives to insert IUDs, effective immediately.
• Resume midwife training on IUD insertion.

Issue: Demand for large family size

Recommendations
• Incorporate FP and smaller family size in all major political speeches by ministers, the prime minister, and H. M. King Abdullah II whenever possible.
• Gain political support for development of policies that support small family norms.
• Incorporate the concept of a smaller family size in school curricula.
• Strengthen information, education, and communication programs.

Conclusion

The HKJ faces several challenges in reaching the goal of lower fertility. Virtually all Jordanians know about, have access to, and have ever-used FP. Opportunities exist in the short- to medium-term to decrease fertility from 3.8 children per woman to 3.0 by focusing on the key reasons for discontinuation of FP: contraceptive failure and dissatisfaction with an FP method. Success will depend on a full and very public commitment from the very highest levels of the HKJ and a vigorous and multi-dimensional FP program that addresses unmet need for FP, improves information and counseling, increases access, introduces long-term modern methods, reduces use of less effective methods, and includes the issues of population factors in development in all levels of planning and in the public debate about the future of the Kingdom.

References


