Men and Family Planning in Iran

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Abstract

Iran experienced a dramatic fertility decline during 1990s—a decline largely attributable to the country's national family planning program, which has made contraceptive-use rates in Iran the highest among all Muslim countries. Iran's family planning program targeted both men and women and encouraged their participation. Indeed, active male participation in family planning is by far one of the program's most important features and distinguishes it from the program's of other countries in the MENA region. Today, 74 percent of married women of reproductive age in Iran practice family planning, and more than one-third of those practicing family planning rely on the "so-called" male methods (condoms, male sterilization, and withdrawal). This paper studies the evolution of the Iranian national family planning program, focusing on the contextual and structural aspects of the program that contributed to overcoming cultural barriers to involving Muslim men in family planning and reproductive health care. The paper uses data from surveys and analysis conducted by the Iranian Ministry of Health and Medical Education, as well from as a series of personal interviews and fieldwork.

Background

The population of Iran increased from 34 million in 1976 to nearly 50 million in 1986, with an average growth rate of 3.9 percent per year (3.2 percent from natural increase and 0.7 percent from immigration). A decade earlier (1966-1976), Iran's average annual growth rate had been 2.7 percent. But the rise in the population growth rate that occurred during and after the 1979 Islamic revolution in Iran was followed by a sharp decline. Between 1986 and 1996, the population growth rate dropped to 2.0 percent per year. Currently, Iran's population is estimated to be growing by 1.2 percent a year.

This growth rate decline was the result of a dramatic change in Iran's fertility over the last two decades. The level of fertility in the country dropped from an average of 5.6 births per woman in 1985 to 2.0 births per woman in 2000, according to the Iranian Ministry of Health and Medical Education. Such a decline (one of the steepest in the world) coincided with the Iran's revival of its national family planning program. The results of the 2000 Demographic and Health Survey (DHS) show that most Iranian provinces have already reached fertility rates at or below replacement level and that all provinces except for Sistan-Baluchestan (at 4.1 births per woman) have total fertility rates below 3 births per woman. The province with the second highest level of fertility is Hormozgan in the south, with an average of 2.8 births per woman. Both Sistan-

Baluchestan and Hormozgan are among less developed provinces in the country (see Table 1).

The decline in fertility in Iran is particularly remarkable in how quickly it occurred in rural areas. Between 1976 and 2000, the total fertility rate in rural areas of the country declined from 8.1 births to 2.4 births per woman. In urban areas during the same period, fertility declined from 4.5 births to 1.8 births. These declines in fertility have mainly been attributed to increases in contraceptive use. The increases in age at first marriage for women were also contributing factors in lowering fertility—between 1986 and 1996, the average age at first marriage increased for rural women from 19.6 years to 22.4 and for urban women from 20.0 years to 22.5 years. [1]

The Iranian experience challenges the general assumption that demographic transition in the Middle East and North Africa region (MENA) has generally been slow. And Iran's recent history confirms that committed policy and financial support, easily available family planning services, and strong demand can ensure a quick uptake in contraceptive use and concomitant decline in fertility. In addition, that history shows that success in family planning requires a holistic approach to the population growth issue that requires the involvement of all sectors of the society.

History of Iran's Family Planning Program

The history of Iran's family planning program goes back to 1960s. Indeed, Iran was one of the first countries in the region to establish a family planning program in 1967 as part of its 1967 development plan) to slow population growth and to improve the health and well-being of its citizens. The program recruited and trained a cadre of professional staff and taught many young doctors about family planning's implications for public health and its critical role in improving the well-being of women and children. Family planning became an integral part of maternal and child health services nationwide. By the mid-1970s, 37 percent of married women in Iran were practicing family planning, with 24 percent using modern methods. But the country's total fertility rate—although declining—remained high, at more than 6 births per woman.

Soon after the 1979 Islamic revolution, the new government withdrew support for the 12-year-old family planning program, calling it a part of the deposed Shah of Iran's westernization efforts. Implicitly pronatalist policies—such as lowering the legal age of marriage, offering more generous maternity benefits, and providing monetary allowances to large families—were put in place. But in an attempt to ensure continued government support for family planning services, a number of committed health professionals approached the government with information about the health benefits of family planning. They even obtained *fatwas* (religious edicts concerning daily life) from Imam Khomeini and other top-ranking clerics that said contraceptive use was consistent with Islamic tenets as long as it did not jeopardize the health of the couple and was used with the informed consent of the husband.[2]

In 1980, Iran was attacked militarily by Iraq in the first act of what became an eight-year war. During this period, Iranian policymakers considered a large population militarily advantageous, and population growth became a major propaganda issue. Many Iranian officials were pleased when the 1986 national census showed that Iran's population of close to 50 million was growing by more than 3 percent per year, one of the highest population growth rates in the world. At the same time, however, officials in the country's Plan and Budget Organization (the main government agency responsible for monitoring government revenues and expenditures) and other ministries such as health, education, and agriculture were aware of the Iran's economic vulnerability and the added difficulties caused by a rapidly growing population.

After the ceasefire with Iraq in 1988 and as the government began to prepare its first national development plan, the Plan and Budget Organization alerted top government leaders that the nation's dwindling resources could not both support the high cost of reconstruction and provide the social and welfare services stipulated by the new constitution. In response, the prime minister asked all government departments to review the population growth rate's impact and implications for Iran's first development plan (which would take effect in 1989). These enlightened technocrats continued their efforts by organizing a series of conferences and media campaigns, targeting high-level government officials and religious leaders, and raising awareness about implications of the country's rapid population growth among top policymakers as well as the public. To ensure that the proposed policy would have the clergy's support, family planning was singled out for special consideration and discussion at a seminar on "Islamic Perspectives in Medicine" in February 1989, which was attended by eminent Iranian clergy and physicians.

In December 1989, the Islamic government of Iran officially inaugurated its national family planning program with three major goals: 1) to encourage spacing of three years to four years between pregnancies; 2) to discourage pregnancy for women younger than 18 and older than 35; and 3) to limit family size to three children. Since then the Ministry of Health and Medical Education has given almost unlimited resources to provide free family planning services to all married couples, promote small families as the norm, and help couples prevent unplanned pregnancies. To remove continuing doubts about the acceptance of sterilization as a method of family planning, the High Judicial Council declared in 1990 that sterilization was not against Islamic principles or existing laws, thus providing users with a wider range of choice of contraceptives.

In 1993, the Iranian legislature passed a family planning bill that removed most of the economic incentives for people to have large families. For example, some allowances for large families were cancelled, and some social benefits for children were provided only for a couple's first three children. The law also gave special attention to such goals as reducing infant mortality, promoting women's education and employment, and extending social security and retirement benefits to all parents so that they would not be motivated to have many children as a source of support for old age.

While all these legal reforms in support of the family planning program are significant and highlight Iran's commitment to slowing population growth, there has been no assessment of the laws' implementation or their impact on lowering fertility. However, it would be correct and fair to say that the government's new population policies—rooted in national economic interest—matched Iranian individuals' growing desire for smaller families. With the modernization of Iranian society, an increasing number of women attended school and remained in school to continue their education. High rates of inflation and the increasing costs of raising children also made large families impractical.

Contraceptive Use

The Iranian family planning program also stands out because it increased contraceptive use among Iranian couples to a level comparable with countries such as France and Germany, where 75 percent of married women use contraception.[3] With its 74 percent contraceptive prevalence rate, Iran now has the highest level of contraceptive use among both MENA countries and all Muslim countries. Table 2 provides data on contraceptive use for a number of major Muslim countries with a history of strong family planning programs: Iran (74 percent); Turkey (64 percent); Tunisia (62 percent); Indonesia and Egypt (60 percent); and Jordan (56 percent). High rates of use for traditional methods—mainly withdrawal, a male method—have pushed both Iran's and Turkey's contraceptive-use rates to the top of the list.

The 2000 Iranian DHS shows that 77 percent of married women of reproductive age (ages 15 to 49) in urban areas use a family planning method, as compared to 67 percent in rural areas. However, the levels of modern contraceptive use in urban and rural areas are about the same—57 percent and 55 percent, respectively. Knowledge of modern contraception is high in both urban and rural areas. For example, 95 percent of rural women reported in 2000 that they knew about female sterilization as a family planning method, and 86 percent said they knew about male sterilization. In contrast, the 2000 Jordanian DHS shows that only 22 percent of ever-married women (ages 15 to 49) in that country knew about vasectomy; 68 percent and 12 percent in urban and rural Egypt, respectively, were aware of the procedure, according to the results of the interim DHS of 2003.

The most popular modern methods used in both rural and urban areas of Iran are the pill and female sterilization (see Table 3). Nearly one-third of Iranian married women using a modern method rely on female sterilization, and another 5 percent rely on male sterilization—both rates the highest among Muslim countries. The 2000 DHS showed that, for Iranian men who had had a vasectomy, the average length of time since their surgery was around 6 years, and around 97 percent of them were satisfied with their choice of method, as reported by their wives.

All family planning services in Iran are provided free of charge by the country's Ministry of Health and Medical Education, thus removing economic barriers in accessing family planning services. Three-quarters of couples using modern contraception rely on public outlets for their family planning services. In rural areas, 91 percent of modern

contraceptive users receive their family planning services from government-sponsored outlets. While the private health sector is quite active in providing contraceptive to urban areas of the country, 67 percent of urban couples using modern contraception still go to public clinics for their family planning services (see Table 4).

Practicing withdrawal is particularly high among the country's urban, educated couples. Overall, 22 percent of urban couples and 10 percent of rural couples use withdrawal as their method of family planning. The so-called "male methods" (withdrawal, male sterilization, and condom use) account for more than one-third (36 percent) of all methods used by Iranian couples, compared to 1.3 percent in Egypt, a country of comparable cultural values, population size, and equal prevalence of modern contraceptives. Female sterilization—that by law requires a husband's consent—is the method used by 23 percent of Iranian couples. Thus, 59 percent of Iranian couples that practice family planning rely on methods that require men's direct involvement.

Looking further at the results of the 2000 DHS, we find more indications that Iranian men are generally as interested in family planning as their wives. Table 5, for example, shows the percent of undesired pregnancies occurring during the two years prior to the survey in rural and urban areas. In rural areas, 25 percent of pregnancies were undesired by both husbands and wives, 9 percent were undesired only by the wife, and another 8 percent were undesired only by the husband. While there are some variations at the provincial level, overall attitudes towards unwanted pregnancies do not vary by gender. Small family size is becoming a countrywide norm—an indication that Iranian society (despite being Islamic) is becoming increasingly modern and even somewhat Westernized.

Factors Contributing to Male Participation in Iran's Family Planning Program

Most other countries of the region consider family planning a "women's issue" and target women for all educational and promotional efforts regarding family planning. By contrast, Iran targets the family, acknowledging that the population growth problem concerns not women alone but the whole society. In implementing its family planning program, Iran also adopted a holistic approach—one that used all the tools of the primary health-care concept of community participation and education to reach the population. Population and health experts close to the Iranian family planning program attribute its success largely to two aspects: 1) the government's information and education program, and 2) to a health-care delivery system that was able to meet family planning needs. Both these aspects have been fundamentally important in creating the right environment for men's participation in family planning.

1) Family Planning Information and Education

Since its revival in 1989, macro-economic rationale and national interests have always been the basis of the family planning program in Iran. The IEC (information, education, and communication) component of the program has always targeted families and the general public. As a result, both men and women have been receiving the same information about the economic implications of rapid population growth, the needs for

family planning, modern methods of contraception, and where to find family planning services.

Here are a few examples of family planning messages used by the Ministry of Health and Medical Education to highlight the economic and health benefits of having a smaller number of children:

- "Dear father and mother, your peace of mind is at the mercy of having fewer children";
- "Fewer children guarantees family health; family health guarantees the health of society"; and
- "Fewer children for the improvement of economic and social advances."

The walls of government-sponsored health clinics (particularly in those clinics where premarital family planning classes are held) are typically covered with these kinds of messages, usually artistically presented in colorful posters.

What are some of the particular methods Iran's program used for educating the public? One of the most important breakthroughs was the establishment of mandatory pre-marital counseling sessions that had to be attended by the couple within one month before the official registration of their marriage. Lasting about two hours, the counseling session has a complete section on family planning. And in addition to providing information about suitable methods of family planning for different stages of the family life cycle, these classes also give couples information about where they can receive free services. Classes are coed in some parts of the country; in more conservative areas, separate classes are held for the prospective brides and grooms. In addition, some provinces offer hotline services to respond to questions the couple might have regarding family planning. The couples begin their lives knowing that family planning is a shared responsibility.

Also, all university students—both males and females, regardless of their field of study—are required to take two courses on population and family planning. All school levels include a curriculum on population and development, and family life education is included in both boys' and girls' high school curriculum.

Family planning messages and activities are carefully crafted to be gender sensitive. Although preference for sons is not as prevalent in Iran as it is seen in some other countries in the MENA region, family planning messages discourage pregnancies whose only purpose is to have male offspring. One of the posters used in the family planning campaign, for example, shows a picture of two girls and reads this slogan: *Better life with fewer children: Girl or boy, two is enough.*

The Ministry of Health and Medical Education is also taking active steps to promote the use of male modern-methods—particularly vasectomy—as the most cost-effective method of contraception. (However, vasectomy is highly controversial in other Muslim countries and is still not a method of choice.) Vasectomy is performed at the primary health-care level in health centers and does not require general anaesthesia. Condoms are

also actively promoted in Iran, which has the only condom factory in the MENA region and which has integrated HIV/AIDS prevention programs into its primary health-care services. Family planning campaigns targeting men have been expanded to include factories, military compounds, and other places where men are found in large numbers. In a 2002 visit to Iran, the authors saw a family planning banner promoting vasectomy that was hanging from one side of the street to another in front of a military clinic in Tehran. In another part of the city, they saw another banner by the entrance door to a health clinic that read: "Better and more comfortable life by practicing family planning and having a smaller number of children. Vasectomy, a definite way of male participation."

2) Primary Health-Care System

Since 1980, when the Iranian constitution bound the government to improve access to health care for the rural population, the primary health-care system of Iran was given top priority. When the family planning program was revitalized in 1989, the primary health-care system was mature enough to adopt the family planning program and to provide it with an effective outreach network. Iran's family planning program became fully integrated into the national primary health-care (PHC) system that covers the entire country, leaving behind very few populations without access to basic health care.

Iran's PHC is internationally acknowledged as one of the best in the developing world. It is a well-designed system, providing health-care services in a sustainable and most locally appropriate manner. When Iran added the family planning program to the PHC system, adequate resources for the program were allocated from national sources to ensure its sustainability.

RURAL HEALTH HOUSES

Iran's rural health-care network is the cornerstone of the country's health-care system. The network evolved out of a series of pilot projects that were conducted in the early 1970s as part of an effort to find the best system for expanding medical health services in rural areas. (Iran's rural population is widely dispersed. In 1996, when the last national census was conducted, more than 68,000 villages had an average population of 340 people.) The result was the establishment of rural "health houses"—health centers based on the idea that vaccine-preventable diseases, acute respiratory infections, and diarrheal diseases could be addressed by making simple technology and information available to even minimally trained personnel.

In 2002, there were more than 16,340 health houses throughout the country, covering more than 90 percent of the rural population. (Mobile clinics reach people in more remote areas.) Each health house serves around 1,500 people—a population usually from one central village (where the health house is located) and those of satellite villages that are within an hour's walk.

Each health house generally has a male and a female provider known as *behvarz* (community level health worker). A *behvarz* is always chosen from local residents of the village where the health house is located or, in few cases, from one of the satellite villages. Choosing local residents to become *behvarz* is a fundamental feature of Iran's rural health-care network. It not only helps create an intimate relationship between a *behvarz* and the community she or he serves, but also reduces turnover. Choosing local residents is also a feature that is particularly important for recruiting female *behvarzes*, who can continue to live at their village home in compliance with tradition. Female *behvarz* proved to be very effective in the implementation of the family planning program in rural areas.

One of the first tasks of a *behvarz* team is to take a population census of the villages for which their health house is responsible. The census is repeated at the beginning of each Iranian calendar year (on March 21). The age and sex profiles of each village are displayed in charts. Summary tables of these data are posted on the wall of each health house and are updated each month along with births and deaths. For example, the data on the wall can show the number of children who have been born since the beginning of the year, the proportion who have been vaccinated, and the number who died by cause of death. The data also show the number of married women of reproductive age (by 5-year age group) and the number of women using modern contraception, by method.

Behvarzes are proactive. They are comfortable knocking on people's doors to talk about families' health-care needs (including family planning) and to give them health advice and make appointments to visit the health house. Women *behvarzes* are introduced to the female reproductive system and receive additional training on birth attendance, post-natal care, public health education, and how to approach local midwives.

In addition to establishing the *behvarz* in rural settings, Iran later developed a system for women volunteers to assist in urban outreach programs that encourages low-income residents of cities to use health facilities. The volunteers are called *rabetin* (meaning "intermediaries" in Farsi) because of the role they play as intermediaries between families and government-sponsored health clinics. Like *behvarz*, these women volunteers are proactive. They play an important role in educating family members (particularly women) about available health services; they also provide health information. Their role, however, extends beyond family planning. The involvement of the community in the outreach programs helps in identifying the priorities and the most appropriate approaches to deliver relevant health messages.

The women's volunteer program began in 1993 with 200 volunteers in Share-Rey, a low-income suburb south of Tehran. Today, there are more than 43,000 such volunteers throughout the country, working closely with their neighborhood clinics. Volunteers maintain files of demographic and health information on each household in their area. The files are kept at the clinic and can be used by health staff; volunteers use the information to help families make appointments to address health-care needs.

Conclusions and Recommendations

Iran provides an example of a Muslim country that, although very traditional in many respects, managed to overcome cultural barriers to family planning and achieve unprecedented levels of success. The case of Iran underlines the fact that behavioral changes are possible even when they concern deeply embedded social practices. However, it is important to use more than one channel to tackle a problem successfully and to use the resources available in the community and the institutions and programs that have already shown the capacity to succeed.

The case of Iran also highlights how social issues must be addressed at the societal level and how involving all stakeholders and encouraging their participation are the essence of achieving social goals. The Iranian family planning program relied on convincing decision-makers at all levels to support the program as well as persuading all stakeholders that their best interests lay in reducing family size and consequently population growth rate.

Other countries in the region that have spent many years trying to achieve better results in their family planning programs have much to learn from Iran's experience. Aside from its overall political and financial commitments, some of these lessons include:

- *Use scientific evidence to persuade policymakers.* Iran showed that scientific evidence could be used effectively to win over policymakers and to change their agendas if the new agenda responds to people's needs and provides solutions to impending problems.

- *Strengthen primary health care.* A strong primary health-care system is essential in reaching people with family planning efforts. (In other countries in the region, efforts to raise contraceptive prevalence rates using primary health care has not been as effective.)

- *Provide choice.* Iran provided consumers with several contraceptive choices—a luxury not readily available in other countries. Religious leaders supported the different methods and formed a united front behind using family planning to combat national problems.

- *Work across different sectors and levels.* Implementing an effective family planning program requires collaboration across different sectors (health, education, religion, media, etc.) and efforts at different levels of the society.

- *Redefine men's role.* Iran appears to be the only country in the region that succeeded in redefining the role of men in family planning. A recent study published by the National Population Council in Egypt showed that researchers there as well as Ministry of Health and Population providers and the general public define men's involvement in family planning as providing support and advice to their wives in the use of family planning—not as men actually using a method themselves. The understanding in Egypt is not different from that

observed in other countries of the region. Iran's redefinition of male involvement has shifted the responsibility of using contraception to both men and women.

Table 1: Fertility and Contraceptive Use by Province and Rural-Urban Residence, Iran, 2000

Province	***Total fertility rate*** (average number of births per woman)			***Percent of married women ages 10 to 49 using contraception***		
	Total	Urban	Rural	Total	Urban	Rural
Markazi	1.7	1.8	1.5	77	79	74
Guilan	1.4	1.4	1.5	75	76	74
Mazandaran	1.7	1.6	1.8	79	80	77
East Azerbaijan	2.1	1.8	2.5	73	75	69
West Azerbaijan	2.5	2.2	2.8	73	77	69
Kermanshah	1.8	1.6	2.1	75	77	71
Khuzestan	2.6	2.2	3.2	70	76	58
Fars	1.7	1.5	1.9	72	76	66
Kerman	2.4	2.3	2.6	70	76	63
Khorassan	2.4	2.3	2.6	68	73	62
Esfahan	1.7	1.6	1.8	79	81	76
Sistan & Baluchestan	4.1	3.5	4.7	42	56	30
Kordestan	1.9	1.9	1.8	77	79	75
Hamedan	1.8	1.4	2.2	77	80	75
Charmahal & Bakhtiari	2.2	1.7	2.6	74	79	70
Lorestan	1.9	1.8	2.1	73	76	68
Ilam	1.8	1.6	2.1	70	74	65
Kohguiluyeh & Boveyrahmad	2.3	2.0	2.5	63	72	57
Bushehr	2.2	2.1	2.3	64	69	57
Zanjan	2.0	1.8	2.2	73	80	67
Semnan	2.1	2.1	2.0	80	83	75
Yazd	2.2	2.4	1.8	77	78	75
Hormozgan	2.8	2.0	3.3	55	70	44
Tehran (excluding city)	2.0	1.7	2.4	79	80	77
Ardebil	2.0	1.7	2.2	73	76	70
Ghom	2.6	2.7	2.0	73	73	72
Ghazvin	1.8	1.8	1.8	76	79	73
Golestan	2.3	1.9	2.6	72	78	68
City of Tehran	1.3	1.3	NA	82	82	NA
Total	2.0	1.8	2.4	74	77	67

Source: Ministry of Health and Medical Education, *Population and Health in the Islamic Republic of Iran—DHS October 2000* (tables 4.1 and 5.2).

NA=not available.

Table 2: Percent of Married Women of Reproductive Age Using Contraception in Selected Muslim Countries

Family planning method	***Total***	***Urban***	***Rural***
Iran, 2000			
Any method	73.8	77.4	67.2
Traditional methods	17.8	22.2	9.9
Modern methods	55.9	55.2	57.3
Egypt, 2003			
Any method	60.0	65.5	55.9
Traditional methods	3.4	4.0	3.0
Modern methods	56.6	61.5	53.0
Indonesia, 2002/03			
Any method	60.3	61.1	59.7
Traditional methods	3.6	4.1	3.2
Modern methods	56.7	57.0	56.5
Jordan, 2002			
Any method	55.8	57.1	50.5
Traditional methods	14.6	14.5	14.6
Modern methods	41.2	42.6	35.8
Tunisia, 2001			
Any method	62.2	64.9	58.1
Traditional methods	9.1	12.2	4.4
Modern methods	53.1	52.7	53.7
Turkey, 1998			
Any method	63.9	66.7	58.1
Traditional methods	25.5	25.2	26.0
Modern methods	37.7	40.8	31.4

Note: The data on Iran relates to women ages 10 to 49; data for the other countries refer to women ages 15 to 49.
Sources: Egypt 2003 DHS (table 3.2); Indonesia 2002-2003 DHS (table 6.2); Jordan 2002 DHS (table 5.4); Tunisia 2001 PAPFAM (Pan Arab Project for Family Health); and Turkey 1989 DHS (table 4.5).

Table 3: Percent of Married Women 10 to 49 Years Old Using Contraception, by Method and Rural-Urban Residence, Iran, 2000

Family planning method	***Total***	***Urban***	***Rural***
Any method	73.8	77.4	67.2
Traditional methods	17.8	22.2	9.9
Modern methods	55.9	55.2	57.3
Pills	18.4	16.5	21.9
Female sterilization	17.1	16.1	18.9
IUDs	8.5	10.2	5.3
Condom	5.9	7.2	3.6
Injections	2.8	1.3	5.5
Male sterilization	2.7	3.5	1.3
Norplant	0.5	0.3	0.7

Source: Ministry of Health and Medical Education, *Population and Health in the Islamic Republic of Iran—DHS October 2000* (table 5.2).

Table 4: Percent of Modern Contraceptive Users (Among Married Women 10 to 49) Who Rely on Public Sector, by Method and Rural-Urban Residence, Iran, 2000

Family planning method	***Urban***	***Rural***
Total	67	91
Pills	58	91
Female sterilization	77	92
IUDs	70	77
Condom	69	90
Injections	97	99
Male sterilization	78	88

Source: Ministry of Health and Medical Education, *Population and Health in the Islamic Republic of Iran—DHS October 2000* (table 5.4).

Table 5: Undesired Pregnancies Reported by Women, Iran, 2000*

Province	Percent of births during two years prior to the survey whose pregnancies were undesired					
	Urban			Rural		
	Undesired by husband only	Undesired by wife only	Undesired by both	Undesired by husband only	Undesired by wife only	Undesired by both
Markazi	8	6	27	4	13	33
Guilan	13	11	21	9	6	22
Mazandaran	13	7	23	22	4	17
East Azerbaijan	14	5	18	4	9	22
West Azerbaijan	9	10	24	11	9	23
Kermanshah	11	7	23	9	10	24
Khuzestan	9	8	24	11	12	24
Fars	7	8	31	8	8	26
Kerman	3	6	29	3	9	27
Khorassan	7	6	25	5	9	29
Esfahan	3	9	25	6	8	26
Sistan & Baluchestan	5	10	21	6	4	17
Kordestan	9	13	21	9	13	25
Hamedan	5	10	32	5	11	32
Charmahal & Bakhtiari	6	8	24	5	11	26
Lorestan	12	11	28	7	10	29
Ilam	13	10	26	10	13	29
Kohguiluyeh & Boveyrahmad	8	9	33	8	12	31
Bushehr	7	6	24	6	10	28
Zanjan	7	7	23	6	12	29
Semnan	8	8	23	6	8	20
Yazd	10	9	23	8	11	21
Hormozgan	5	7	22	3	9	24
Tehran (excluding city)	14	7	17	6	8	27
Ardebil	8	6	27	2	9	30
Ghom	5	6	25	7	9	25
Ghazvin	12	6	25	6	8	29
Golestan	17	8	20	12	6	19
City of Tehran	6	9	18	NA	NA	NA
Total	8	8	23	8	9	25

***** Two years prior to the survey.

Source: Ministry of Health and Medical Education, *Population and Health in the Islamic Republic of Iran—DHS October 2000* (table 4.6).

[1] Farzaneh Roudi-Fahimi, *Iran's Family Planning Program: Responding to A Nation's Needs* (Population Reference Bureau: Washington DC, 2002) and Statistical Center of Iran, *Iran Statistical Yearbook 1381* (table 2.28).
[2] Amir H. Mehryar, "Ideological Basis of Fertility Changes in Post-Revolutionary Iran: Shiite Teaching vs. Pragmatic Considerations" (Tehran: Institute for Research on Planning and Development, 2000).
[3] Lori Ashford and Donna Clifton, *2005 Women of Our World* (Washington, DC: Population Reference Bureau, 2005).