Fertility, Contraceptive Use and Family Planning Program Activity in the Islamic Republic of Iran

By Akbar Aghajanian and Amir H. Merhyar

Since the 1979 revolution in Iran, Islamic ideology has guided the policies and actions of the country’s government. However, pragmatism has prevailed over pure ideology when necessary. In fact, the adaptability of Islamic ideology in response to economic reality became evident when the government launched its program of reconstruction and sociocultural development after the cease-fire with Iraq in 1988. Iran’s first five-year social, economic and cultural development plan (1989–1994) included a policy on population, with government support for a family planning program. This article describes Iran’s family planning program and analyzes its accomplishments.

Although Iran had an informal family planning program during the early 1960s, it was not until 1967 that a formal population policy and a birth control program were established.1 Yet after the 1979 revolution, both the policy and the program were undermined by the other priorities of the new government. However, the Ministry of Health and Medical Education continued to provide contraceptives and other family planning services through the Family and School Health Department clinics. Yet the program was understaffed, and its personnel performed other duties in addition to providing contraceptive services. Furthermore, most rural areas were not covered by the activities of this department.

A lack of attention to the population growth rate continued until after the cease-fire with Iraq. From 1976–1986, Iran’s population increased at an average annual rate of 3.4%, and was 49.4 million by the end of the 10-year period.2 As a result, the government faced great demands for food, health care, education and employment. In February 1988, for the first time, the prime minister issued a statement on population to members of the cabinet, requesting that they consider population size and growth when setting policy. Later in the year, he said that Iranians’ standard of living was being eroded by the growth of the country’s population and publicly asked women interested in preventing an unwanted birth to get help in government health clinics or health houses.

When the government renewed its interest in family planning, free contraceptives were made available through the primary health care system. In December 1989, the government introduced a family planning program with three major goals: encouraging women to space their pregnancies by 3–4 years, discouraging pregnancy among women younger than 18 and older than 35, and limiting family size to three children. In 1990, the Council of Ministers created the Birth Limitation Council, in which various ministries and departments would participate. The council’s objectives were to increase contraceptive prevalence among married women and to decrease the total fertility rate (TFR), the birth rate and the population growth rate. To accomplish these objectives, the council developed the following strategies:

- Organize educational programs on population issues for the general public;
- Increase married couples’ access to free contraceptives;
- Provide a variety of modern contraceptives; and
- Conduct research on various aspects of family planning service delivery and on the population policy.

In 1991, a separate Directorate of Population and Family Planning was established in the Ministry of Health and Medical Education to oversee family planning service delivery within the primary health care network. As the network has developed and grown, family planning services have become more widely available. The program’s services now reach remote villages with the help of local, trained health care workers.

Service Delivery in Iran

At the core of the health care network in rural areas is the health house, which is staffed by a community health worker ( Behvarz). She works in her village of residence and covers about five other satellite villages, usually no more than a one-hour walk from her own. The size of the population covered by the health worker in her village of residence and the satellite villages is between 500 and 2,000, depending on the regional population distribution and the density of the area’s villages.

Community health workers are recruited from the local population of women who have received at least a primary school education. They receive special training for a period of two years in a school sponsored by the Ministry of Health and Medical Education. Health workers provide maternal and child health care, family planning services, assistance with sanitation, immunizations and treatment for diseases such as malaria. They also provide referrals to the rural health center, the next level of primary care, and maintain the local health statistics. Male health workers also are trained in the program and participate in the activities of the health house, but information on family planning is provided by female health workers only.

The rural health center staff supervise and supply the health houses. Each center supports up to six health houses, covering on average a population of 8,600. In each health center, one physician supervises the center and the allied health services.

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houses. This physician is expected to visit the health houses on a regular basis and to care for patients who are referred to the health center. Other types of trained health personnel working at the health center include a person in charge of dental hygiene, a trained midwife, a physician’s assistant, an experienced health worker who helps identify environmental sources of disease and a health care provider who visits the area’s schools on a regular basis.

In urban areas, the Ministry of Health and Medical Education provides family planning services at clinics that are scattered throughout the town and that comprise the urban health center. These urban clinics provide primary health care and referrals to the urban health center, which is staffed by a primary care physician, nurses and other health personnel. The center controls all health activities in the area, which typically includes at least one hospital. Family planning services are considered an integral part of the primary health care provided by the nurses who work at the urban clinics; clients are referred to the urban health center for sterilizations.

The private sector also provides a significant portion of the family planning services obtained in urban areas: Oral contraceptives can be obtained from drugstores (by prescription), and sterilizations are carried out in private hospitals. These services are used primarily by middle-class urban couples and are relatively expensive when compared with those provided by the public sector. Further understanding of the private sector’s role in the Iranian family planning program requires data that are not currently available.

**Government Commitment**

The Islamic government’s increased commitment to family planning is reflected in its second, social, economic and cultural plan (1994–1999). Under this plan, Iran’s family planning program was fully integrated into the primary health care system. The program’s focus is on providing contraceptives; enhancing the skills of service providers; developing a management system; expanding information, education and communication efforts; and increasing research and evaluation.

It is difficult to estimate how much of the government’s budget is actually spent on the family planning program, because of the program’s integration into the primary health care system. While the direct costs associated with the provision of contraceptives and other family planning services are available, those related to the infrastructure cannot be calculated.

Prior to 1989, there was no specific budget line for family planning activities. Between 1991 and 1992, approximately 13 billion Rials had been allocated to the program. (Although it is difficult to provide the equivalent in U.S. dollars due to frequent fluctuations in the exchange rate, it was set at roughly 3,000 Rials to U.S. $1 between 1990 and 1994.) By 1993, the family planning budget was 16.8 billion Rials. However, it is difficult to determine by how much the budget actually grew because of changes made to the accounting system. According to the director of the family planning division, the budget increased by 19% from 1994 to 1995 and another 24% between 1995 and 1996. The budget is primarily used for the purchase of contraceptives, the provision of tubectomies and vasectomies, and the acquisition of equipment. (There is a separate line item for building and renovating the health facilities within which the family planning services are delivered.)

The government has done more than simply allocate funds to indicate its commitment to slowing population growth and to encouraging family planning. The government’s concern that the size of the population may be a serious impediment to progress has led to a great deal of publicity about the importance of limiting family size to two or three children and to improving children’s quality of life. For example, government officials and religious leaders have promoted family planning and its benefits through special television programs. Representatives from various government agencies attend a yearly national seminar on population and family planning and report in detail on the activities that their offices have undertaken to help expand contraceptive use.

Representatives from the religious community also have expressed their support for family planning at the annual population and family planning conference and have clarified the relationship between religion and birth control. Although they are strongly opposed to abortion, clerics have endorsed the government’s family planning program. An indication of the clergy’s support of family planning is reflected in a statement made by the representative of Vali-a-Faghi, the highest religious figure, at the 1994 population conference: He said that all religious authorities must support the family planning program without reservation and discussion because the program was initiated by the Islamic government.

The staff in the population division of the Plan and Budget Organization and the Ministry of Health and Medical Education have worked hard to convince the top leadership, including the clergy, of the grave consequences of rapid population growth for the economic development of the country. As a result of their work, issues related to family planning have consistently received the approval of the majority in the Islamic Assembly (Majles). Although not all members of the assembly agree with all aspects of family planning, the government has been able to get the votes needed to support the family planning program.

The Iranian government’s population policies have included disincentives for families with more than three children. For example, in 1992, the assembly approved a law banning public benefits, such as paid maternity leave and social welfare subsidies to low-income women, for the birth of any child after the third.

**Program Accomplishments**

The Ministry of Health and Medical Education conducted knowledge, attitude and practice (KAP) surveys in the fall of 1989 and in the spring of every year from 1992 to 1997. These surveys used a standard KAP questionnaire with a few questions regarding married women’s fertility, such as the number of children a woman has had, the number of pregnancies she has had and whether she has had a child in the previous 12 months. In addition, questions were asked about knowledge, past use and current use of contraceptives and sources of contraceptive supplies. The sample size for most of the surveys was more than 10,000 rural and 10,000 urban households. (In 1989, 5,000 households in urban areas and 4,000 in rural areas were surveyed.) All married women aged 15–49 in a household from a random sample of households within each of Iran’s 24 provinces were surveyed.

Currently, the published tabulations from these surveys are the only source of data available for analysis of the family planning program’s achievements and failures. Tabulations have been distributed at the yearly population seminar in Tehran* and are compiled in the tables presented in this article. Because the data that are available are not adequate for systematic evaluation of the program, the Ministry of Health and Medical Education intends to carry out a more comprehensive survey, similar to the Demographic and Health Surveys, as early as 1999.

*The original copies in Farsi are available from the author.
Table 1. Percentage of married women aged 15–49 currently practicing contraception, and percentage using modern or traditional methods, by place of residence, according to year, Iran

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>37.0</td>
<td>53.8</td>
<td>19.9</td>
</tr>
<tr>
<td>1992</td>
<td>64.6</td>
<td>74.1</td>
<td>51.5</td>
</tr>
<tr>
<td>Modern</td>
<td>44.6</td>
<td>47.1</td>
<td>41.1</td>
</tr>
<tr>
<td>Traditional</td>
<td>20.0</td>
<td>27.0</td>
<td>10.4</td>
</tr>
<tr>
<td>1994</td>
<td>72.2</td>
<td>77.6</td>
<td>63.5</td>
</tr>
<tr>
<td>1996</td>
<td>74.2</td>
<td>80.8</td>
<td>70.2</td>
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<tr>
<td>1997</td>
<td>72.9</td>
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<td>65.9</td>
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<tr>
<td>Modern</td>
<td>55.4</td>
<td>54.8</td>
<td>56.6</td>
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<tr>
<td>Traditional</td>
<td>17.5</td>
<td>22.6</td>
<td>9.3</td>
</tr>
</tbody>
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Sources: 1976—see reference 5. 1992 and subsequent years—annual report for that year’s KAP survey, presented in following year at annual Population and Family Planning Conference, Tehran, Iran.

Contraceptive Prevalence

Estimates of contraceptive prevalence among married women aged 15–49 from four KAP surveys appear in Table 1, along with the rates from the 1976–1977 Iran Fertility Survey. By 1992, a far greater proportion of married women of reproductive age were practicing contraception than were doing so at the peak of program activity during the 1970s (65% vs. 37%). While contraceptive use has increased each year, its growth slowed after 1994.

Table 1 also shows a persistent difference in contraceptive use between urban and rural areas, although it had been substantially reduced in recent years: In 1976, only 20% of rural women practiced contraception, compared with 54% of urban women; by 1992, 52% of rural women and 74% of urban women were using contraceptives, and by 1997, 66% of rural women and 77% of urban women were doing so. This represents a remarkable shift in rural communities, because prior experience with contraceptive methods, including traditional ones, had once been extremely limited.

Traditional contraceptive methods have been used for a long time in Iran, the most popular being withdrawal. In 1992, traditional methods accounted for about one-third of urban contraceptive use and approximately one-fifth of rural contraceptive use. In both rural and urban areas, there was a slight decrease in the use of traditional contraceptives between 1992 and 1997.

Modern Method Mix

In 1992, the pill was the modern contraceptive method most frequently used by all married women who were practicing contraception (Table 2). About 43% of modern contraceptive users in urban areas and 64% of rural users reported that they relied upon the pill. This method was followed by the IUD in urban areas (21%) and tubectomy in rural communities (18%). Condoms accounted for 17% of modern contraceptive use reported by urban women and 10% of use reported by rural women.

There was a shift away from the pill and condoms between 1992 and 1997: Pill use declined by approximately nine percentage points among urban women and by 19 percentage points among rural women. There was a corresponding increase in the proportion of women selecting tubectomy, use of which grew by 11 percentage points in both urban and rural areas. Reliance on vasectomy almost doubled between 1992 and 1997, but this method still accounted for only 2–4% of modern contraceptive use. The hormonal implant and injectables have recently been added to the mix of contraceptives available from the program. A greater proportion of rural women than urban women used an injectable contraceptive (10% vs. 3%), while reliance on the hormonal implant was limited among all women.

Sources of Contraceptive Supplies

A favorable environment for private-sector supply of contraceptives emerged when the family planning program was revitalized. Data from the 1992 KAP survey showed that 57% of modern contraceptives were supplied through public hospitals, health centers, health houses and pharmacies. The remainder were supplied by the private sector. Data from the 1997 survey indicate that 28% of modern contraceptive users reported the private sector as their source. In 1997, 37% of the pill supplies and 30% of IUDs were obtained through the private sector. There are indications that the government would like to increase the private sector’s role in the supply of contraceptives. Yet, more data are needed to examine this issue and to determine how access through the private sector can be expanded.

Use of Permanent Methods

Reliance on vasectomy and tubectomy is increasing in Iran, particularly in provinces that are considered religiously conservative, such as Isfahan and Yazd. In 1996, the average age of women who elected to have a tubectomy was 33 in urban areas and 34 in rural areas; the average age of all women whose husbands had a vasectomy was 32. Most of the couples who chose to use a permanent method had been married at least 10 years and were at a high parity.

It appears that women who have had a tubectomy are more likely to have a limited education, compared with women whose husbands have had a vasectomy. About 60% of women in Isfahan who have had a tubectomy were illiterate. On the other hand, about 33% of women whose husband had had a vasectomy were illiterate. However, both groups averaged 5.4 living children, and more than 50% of women who had had a tubectomy had more than five living children.

Quality of Service Delivery

The reports available from the KAP surveys do not allow for a comprehensive evaluation of the quality of service delivery within Iran’s family planning program. However, answers to some of the questions from the most recent surveys can be viewed as rough measures of quality.

Pill Use and Unwanted Pregnancies

In 1996, about 30% of pill users did not know how to take the pill correctly, based on Ministry of Health and Medical Education protocol (Table 3). A greater proportion of rural than urban pill users knew how to use the method correctly (72% vs. 67%). Nevertheless, Table 4 indicates that among married women aged 15–49 who were pregnant in the preceding year, rural women were more likely than urban women to have been using the pill at the time they became pregnant (12% vs. 7%).
This observed discrepancy between knowledge and practice in rural areas needs to be further evaluated and addressed by the program.

Unwanted Pregnancies

There is a strong negative association between the wantedness status of a pregnancy and parity in Iran (Table 5). High-parity pregnancies are more likely to be unwanted. About 60% of women who had three or more live births and who were pregnant in the 12 months prior to the 1996 KAP survey reported that their pregnancy was unwanted. Since roughly 30% of pregnancies occur among high-parity women, meeting the contraceptive needs of women who have had their desired number of children should be a high priority.

Population Growth and Fertility

There are three major sources of demographic data in Iran: The Statistical Center of Iran conducts censuses and population surveys, the Civil Registration Organization maintains a registry of vital events and the Ministry of Health and Medical Education generates demographic data through its yearly KAP surveys. Although these three data sources are not always consistent, all three are used in this article to analyze the demographic impact of the family planning program.

According to the 1991 census, the annual population growth rate in Iran declined to 2.5% between 1986 and 1991. During the early 1990s, Iran’s population increased at an average rate of 1.5%, according to the 1996 census. The decrease in the population growth rate was the result of a reduction in the birthrate brought about by a decline in the total fertility rate.

Birth registration data from the Civil Registration Organization indicate that during the period 1986–1994, Iran’s crude birthrate declined from about 43 births per 1,000 population to about 24 per 1,000 (Table 6). The decline in the crude birthrate observed on the basis of registration data is consistent with the decline in the birthrate calculated from surveys conducted by the Ministry of Health and Medical Education. According to their data, the crude birthrate declined from 35 births per 1,000 population in 1988 to 18 per 1,000 in 1996.

The birthrates estimated from the KAP surveys are lower than those estimated from the vital statistics, but the patterns of decline are consistent. According to these same data sources, the total fertility rate also declined significantly: Based on adjusted registration data, the TFR was 3.5 lifetime births per woman in 1993, 43% lower than the 1986 estimate. A similar decline in the TFR is found in data from the KAP surveys, with the Ministry of Health and Medical Education reporting a TFR of 5.2 births per woman for 1989 and one of 2.8 for 1996, a decline of 47%.

While there was a notable decrease in fertility in urban areas during the 1970s, there was no corresponding fertility decline in rural Iran. Between 1986 and 1996, however, the TFR in urban areas declined from 5.1 to 3.1 births per woman, while in rural areas it fell from 8.4 to 4.6 births per woman. Therefore, the decrease in marital fertility among rural couples seen in the 1990s is new and may be the result of increased access to contraceptives through the family planning program. It should be noted, however, that age at marriage for both rural and urban women has increased; this may also have played a role in the decline of total fertility, and hence of the crude birthrate.

Desire for Smaller Families

Many factors, such as significant gains in child survival, economic pressures placed on families, and increased educational and employment opportunities for women, may be motivating couples to have fewer children. Additionally, religious and political authorities, as well as the clerical rank and file, have argued convincingly that family planning and birth limitation are good for the society as well as for the family; their support has bestowed acceptability on the family planning program. Furthermore, people may be influenced by the absence of government benefits, such as maternity leave, at the birth of any child beyond the third.

The government’s efforts to increase the acceptability of smaller family size and contraception probably could not have succeeded if there had not been a large decline in infant mortality. Between 1976 and 1991, infant mortality decreased from a rate of 112 infant deaths per 1,000 live births to a rate of 63.2 per 1,000, a decline of almost 50%. With the expansion of the primary health care network in rural areas, further decreases can be expected. Improvements in child survival tend to lessen demand for large families and to increase acceptability of family planning services.

Iran’s continued dependency on oil revenues as the source of government funds, its use of a significant portion of this revenue for defense purposes, devaluations of the Iranian currency, removal of a number of subsidies on imported goods and an increase in average family size during the 1980s have all placed significant economic pressures on the Iranian family and have reduced their purchasing power.

The cost of raising children, especially the cost of providing them with an education, has increased during the last decade. In addition, there is greater demand for consumer goods and a limit on the availability of modern imported goods. Couples may be responding by reducing their expected number of children.

Increased educational opportunities for women also may be associated with reduced family size and increased contraceptive use. Contrary to the early speculation of some authors, Iranian women’s
educational status has improved during the postrevolutionary period. In 1976, the literacy rate for all women aged six years and older was 36%, although it was only 17% for rural women. From 1976–1986, the female literacy rate almost doubled in both rural and urban areas. By 1996, the literacy rate for all women six years and older was 74%, and the rate for rural women was 62%. Female enrollment at the elementary and middle-school levels approached 100% and was roughly 50% at the high school level in 1996. Obtaining a high school diploma before marriage thus appears to have become more common for women, especially for those living in urban areas.

More Iranian women are working or are intending to work once they finish school, which also may be influencing people’s attitudes toward family size. In a recent study, more than 90% of female high school students expressed their intention and their desire to work after they are married, and the majority of their male peers indicated that they will agree with their wives’ working. Parents are expressing greater comfort with having their daughters work (in gender-segregated environments), and the government is promoting greater social participation for women and improvements in their status.

Discussion
In general, there has been neither a rapid increase in contraceptive use in the Middle East nor a rapid decline in fertility. Nevertheless, recent data reveal a notable decline in the birthrate in Iran, and evidence suggests that Iran’s family planning program has made a significant contribution to this decline. Modern contraceptive use, especially female sterilization, is increasing in rural as well as in urban areas, and knowledge about contraception appears to be widespread. While it is difficult as yet to estimate the exact change in fertility levels in Iran, it is clear that a fertility transition is occurring in a country where Islam as a religion is not separate from the state and where public policies are strongly influenced by the state’s religious affiliation.

In considering the successes of Iran’s family planning program, it is important to note the strong role that government technocrats and religious leaders have played. Although the government did not retain the birth control policy of the previous regime, family planning services continued to be available through family health clinics, which were predominantly located in urban areas. Once the new family planning program was initiated, the Islamic government showed a strong commitment to the program’s strategies and goals.

Concern over the negative impact of population growth was shared by many rank-and-file members of the government. Yet the most important elements of the family planning program’s success has been the interest, support and guidance of the religious leaders, which developed within a context of the religion’s flexibility regarding social issues. When the high population growth rate was identified as a threat to the welfare of the family and society, it was discussed as a problem with the highest Islamic authorities. There is little doubt that the positive Fatava (direction given by an Islamic leader) regarding the use of contraceptives, originally issued by Ayatollah Khomeini in 1980, was very important in obtaining the support of the religious leaders in 1989.

The Fatava and its reiteration at various times by different members of the government was a powerful boost to the family planning program and made family planning a matter to be considered by all groups and social classes. The government’s commitment to the family planning program and the support of the country’s religious leadership, along with the significant decline in infant mortality, the increased economic pressure on families and the increased level of female education, are all contributing to the fertility decline in the Islamic Republic of Iran.

References
6. Ibid.
8. Ibid.
17. Ibid.