## International Family Medicine

# Family Medicine in Iran: The Birth of a New Specialty

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*Since the revolution of 1978–1979, the government of Iran has worked toward development of a primary health care system to improve basic health for its citizens. Although infant mortality and other parameters have improved, increasing urbanization and poor lifestyle choices continue to present major challenges to improving overall health statistics in the country. Generalist physicians, with no training beyond medical school graduation, have not inspired confidence from patients or specialist colleagues. Therefore, many patients prefer to receive care for common health complaints from specialist physicians. Health care for many individuals tends to be episodic, driven by patient concerns for acute illness rather than by patient-centered, longitudinal care. The government of Iran has decided to develop family medicine as a specialty within the country to help respond to these problems. Based on an initial consultation with some leaders in the Ministry of Health and Medical Education, as well as students, nursing staff, subspecialists, administrators, and medical educators, a number of suggested steps were recommended to support the development of family medicine in Iran. These involved, among others, further development of the specialty and parity with other specialties, development of faculty and curricula, and a plan for financing rural health care.*

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## Background

*The Iranian Primary Health Care System*

The current primary health care system in the Islamic Republic of Iran was established with an emphasis on improving access to health care for the disadvantaged and reducing the gap between health outcomes in rural and urban areas. During the past 2 decades, Iranian public health policy has led to great reductions in health disparities between higher-income urban populations and the rural poor. For example, in 1974 the infant mortality rate was 120 per 1,000 live births for rural areas, and 62 per 1,000 for urban areas. By 2000, these figures had declined to 30 and 28, respectively.[1]

Many of these positive changes are attributed to the establishment in 1985 of a joint Ministry of Health and Medical Education.[2,3] The merger made it clear that "community needs must be given primary consideration in the context of training medical manpower" and that "the political commitment of the government was to provide health services throughout the country."[3] This merger holds medical educational institutions accountable to meeting the health care needs of the people of Iran.

To improve access in remote, rural areas, the primary health care system has embraced three principles: (1) establishment of "Health Houses" (local health centers) in remote areas throughout the country, (2) staffing the Health Houses with community health workers, known as *behvarz*, who are recruited from their local communities, and (3) developing a simple but well-integrated health information system.

The training for *behvarz* is 2 years long and has shifted from memorization of written material to group discussions, role-playing exercises, and working as a trainee in a Health House.[4] Rural Health Houses offer basic primary medical care and health education, although they do not typically provide contraceptive services or Pap smears. In urban areas, government facilities include Health Posts, with services and responsibilities comparable to the rural Health Houses. However, unlike Health Houses, the urban Health Posts are not staffed with *behvarz*.[5] Also, unlike Health Houses, Health Posts are equipped to place IUDs and to perform Pap smears.

The primary health care system is dedicated to reducing infant and child mortality, eliminating major

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infectious diseases of childhood, and improving the health of mothers. The system is funded entirely by the national government, and the pattern of public health spending emphasizes rural public health services—a fact that may partly explain the decrease in rural infant mortality rates during the past decade. Other areas of emphasis include the promotion of healthy attitudes and behaviors, the universal immunization of children, encouragement of breastfeeding, use of iodated salt, and providing appropriate treatment for children suffering from diarrhea and acute respiratory infections. The presence of the village health workers helps to ensure that health messages are heeded. Further, the architects of the primary health care system recognized the importance of ensuring easy access to the measures recommended (eg, vaccines, essential drugs, and oral rehydration).[6,7]

*Undergraduate Medical Education*

Medical students are admitted directly from secondary school to a 7-year undergraduate medical education. The initial phase of training typically consists of five 6-month periods focused primarily on basic biological sciences. After passing a national exam, students then spend 2.5 years in hospital rotations such as obstetrics, pediatrics, internal medicine, surgery, and neurology. They have relatively little direct patient care responsibilities during this time but have the opportunity to practice their physical exam skills. Following another national exam, students receive an additional 18 months of clinical training, referred to as an "internship." This training involves direct, supervised patient care, as students rotate through different services. A recent report by Haq et al[8] described an ongoing evolution of the Iranian health care system and medical education system. Curriculum at some medical schools continues to evolve toward increasing integration of basic and clinical sciences and more interactive styles of teaching.

*Graduate Medical Education*

Following the internship period of medical school, students graduate, and with graduation they receive a medical license. They are then required by national mandate to serve 2 years providing generalist care, usually in rural underserved areas. Following this obligation, virtually all physicians seek to enroll in a residency program. However, with approximately one residency slot for four applicants, the majority of physicians are not able to receive any further training, so they continue to function as generalist physicians.

The health care system in Iran presently includes 24 specialties and 21 subspecialties, each with its own certification and accreditation process. However, the majority of doctors in Iran are generalist physicians (GPs) who received their medical license at the time of graduation and who began their medical work with no further training. Family medicine does not yet exist as a specialty in the country.

Residency programs of particular interest are general internal medicine and community medicine, since these specialties could be expected to have some overlap with family medicine as it develops in the future. Community medicine residency consists of 12 months focused on obtaining a master of public health (MPH), 8 months of clinical experience, and 16 months of field experience. There are five community medicine programs in Iran, but they only graduate eight physicians per year.

*Factors Leading to Consultation Regarding Development of Family Medicine*

Because many in the general public view GPs as lacking in skill and efficacy compared to subspecialists, many patients prefer to bypass GPs when seeking health care. Further, many Iranians seek care only when they have symptoms of an illness. Thus, the present model of health care emphasizes episodic, acute, biomedical solutions that are disease centered rather than patient centered.

Iran currently faces major public health challenges in changing unhealthy lifestyle habits. Having made effective reductions in communicable diseases during the past few decades, the country now must address heart disease and accidents as the two leading causes of death. After several years of study and discussion, the government concluded that the development of family medicine as a specialty would be of benefit to its people. We responded to a request by the Iran Ministry of Health and Medical Education to provide consultation and to make specific recommendations about the development of family medicine as a specialty in the country.

## Methods

*Summary of Institutional Visits and Meetings*

Discussions for this initial consultation included several meetings convened by the Ministry of Health and Medical Education and included the Minister and Deputy Minister of Health, the Director of Medical Curriculum Reform, graduate medical education officials, and representatives from a variety of specialties, including community medicine. Other discussions at two major medical centers (Rasool Medical Center and Imam Khomeini Hospital) included participation of medical students, nursing staff, residents, and attending physicians from a variety of hospital services, including surgery, gastroenterology, internal medicine, emergency medicine, and outpatient clinics, as well as hospital administration. Other discussions were held at a medical school (Shaheed Beheshti School of Medical Sciences) with the participation of students, basic science and clinical faculty (two of whom were GPs), education specialists, and the dean of the school.

## Results

*Recommendations*

We recommended to Iranian health officials that family medicine has the potential to improve access to high-quality primary health care for all Iranians. The development of family medicine in Iran should proceed on two fronts concurrently: in local settings and also on a broad, national scale. Because the challenges of training new family physicians for the entire country and adding to the skills and knowledge of many thousands of GPs are so large, an initial model was recommended of local development and demonstration projects in a few selected rural communities. At the same time, broad national discussions should be initiated to collect data on needs and attitudes of the public and GPs around the country and to begin the process of building curricula, accreditation procedures, and an academic presence for family medicine as a specialty. It is impossible to overemphasize the importance of enlisting the participation and advice of GPs, including the national society of generalist physicians, in all aspects of this process. For this to succeed, GPs must see the development of family medicine as beneficial to themselves and their patients.

We made three recommendations that should be considered overarching, long-range goals, to be initiated from the outset and maintained as an ongoing part of the health care system: (1) establish family medicine as a specialty, (2) develop parity for family medicine with other medical specialties, and (3) develop and teach models of longitudinal, patient-centered, comprehensive care. The remaining recommendations are more specific, short-term actions that will help to support further development of the first three: (4) develop core faculty, (5) involve GPs and community medicine physicians, (6) assess attitudes, needs, and practices of other specialists, (7) develop a comprehensive curriculum plan, and develop mechanisms to ensure community participation in establishing the competencies expected of family physicians, (8) build on success, (9) develop a plan for consultants, and (10) develop a plan to support and finance family physicians who will serve in rural areas. Table 1 includes an outline of all of the major recommendations.

Table 1

Outline of Recommendations for Development of Family Medicine in Iran

I. Establish family medicine (FM) as a specialty
   - A. Establish review and accreditation procedures
   - B. Describe the specialty of FM
   - C. Educate public about value of FM
   - D. Develop professional FM organization
   - E. Develop academic departments of FM

II. Involve GPs and community medicine specialists
III. Develop core faculty in Iran
IV. Develop parity for FM
   - A. Emphasize service, meaning, and value
   - B. Emphasize prestige
   - C. Establish incentives for patients
   - D. Establish incentives for communication among physicians
   - E. Establish realistic expectations for productivity
   - F. Establish incentives for clinical and community research

V. Develop and teach models for longitudinal, comprehensive care
VI. Assess attitudes, needs, and practices of other specialists
VII. Develop comprehensive curriculum plan
   - A. Establish core of knowledge, skills, and attitudes that define FM
   - B. Develop curriculum for current GPs
   - C. Develop CME curriculum
   - D. Define core knowledge for medical students
   - E. Demonstrate and teach communication skills

VIII. Build on success
   - A. Start small and focused
   - B. Develop pilot models
   - C. Involve local communities
   - D. Include site visits

IX. Develop plan for consultants and recommended follow-up
   - A. Involvement of consultants
   - B. Develop a plan for future consultations

GP—generalist physician
CME—continuing medical education

## Discussion

Iran faces several challenges to further development of its health care system. Despite the successes of the primary health care system in reducing disparities between urban and rural areas in regard to health, literacy, and infant mortality, some urban-rural disparities remain. Health insurance coverage is one example: many rural residents remain without any kind of government or private insurance. The financing of health care is complex and still unavailable to many. A variety of insurance schemes are under review, within a broader analysis of overall health system financing, and there are debates about what sort of organizational arrangements within the public sector would enhance the quality and efficiency of primary care.[7] The Ministry of Health anticipates that having continuity of care and longitudinal patient-physician relationships that emphasize preventive health will help control the rapidly increasing medical costs that Iran is currently experiencing.

The country's epidemiological profile is gradually changing, as community health workers have introduced health education, vaccinations, and some basic health services into communities that previously had little or no health care. Urbanization brings with it predictable lifestyle changes. Today, in Iran, the major burden of disease is attributable to noncommunicable diseases such as heart disease and injuries.

There was general agreement among informants in these discussions that clinical care, by both the GPs and specialist physicians, is often not evidence based. Leaders working both inside and outside of the gov-

ernment are aware of this problem, and there is great interest and support for development of evidence-based treatment guidelines.

Many leaders of health care reform are keenly aware that, although recent health care programs have produced important gains, they have not responded to the comprehensive vision of primary health care developed at Alma-Ata,[9] notably its emphasis on tackling the socioeconomic determinants of ill health. The present move toward development of family medicine as a specialty is based on a recognition of the value of longitudinal, patient-centered, comprehensive care. However, it remains to be seen whether these strategies will also respond to the messages of equity and community participation delivered at Alma-Ata. The struggle for equity in health care is also a challenge in the United States, so this issue highlights an area of common goals for both countries, with opportunities for joint study and discussion.

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