

# Family Medicine in the Middle East: Reflections on the Experiences of Several Countries

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Family medicine is strongly influenced by the country in which it is practiced. There are lessons to be learned from examining other health care systems as well as the experiences of family physicians in different countries. A changing trend in the delivery of medical care around the world and the acceptance of the principle "health for all by year 2000" have resulted in a shift of health care delivery from hospitals and allied facilities to community health centers. At the same time, family medicine has been recognized as a specialty in its own right. Because this specialty is the cornerstone for developing a community-based health care system, training family physicians is more important than ever.

During the past two decades most Middle Eastern countries have placed increasing emphasis on improved health care. Delivery of health care in the region interrelates strongly with other factors, such as food and nutrition, sanitation, water supply, literacy, and income distribution. In general, the government is the main provider of health care, and social insurance is viewed as a public responsibility.

The countries in this region can be divided into the following groups:

1. Countries typified by substantial capital, rapid development, and a small indigenous population, such as Saudi Arabia, Kuwait, and most Persian Gulf states
2. Countries with less capital, more people, a quantitatively larger medical infrastructure, and more trained medical personnel, such as Egypt, Israel, and Algeria

3. Countries whose extensive medical service plans have been halted or greatly decreased in scope because of civil strife or war, such as Iraq, Lebanon, and Iran.

## Israel

Since the State of Israel was established in 1948, the Jewish population has increased sevenfold, mainly as a result of successive waves of immigrants and refugees. Israel, with the financial support of the United States and the Jewish community around the world, has passed through a rapid process of industrialization. Modernization and urbanization were accompanied by extensive educational, social, and welfare programs, which transformed Israel into a modern welfare state.

In the health care field comprehensive hospital and community health services grew rapidly. The authorities were able to eradicate the major endemic infectious and tropical diseases. Health indices compare favorably with most developed countries (Table 1).<sup>1-4</sup> The population reached 4.3 million by 1987.<sup>5</sup>

Primary health care services are provided to almost 96 percent of the population through prepaid health insurance. The premium is usually based on income, and there are fixed maximum payments.<sup>6</sup> High levels of manpower have been established, with a physician to population ratio of 1:450. The medical community is supported by four medical schools that graduate 300 physicians annually and by immigration. Health services have several problems, however, including serious organizational problems, a structural split between preventive and curative services, fragmentation, and lack of coordination. In addition to overutilization in the absence of cost-containment measures, there is an irrational bias in the distribution of medical resources toward hospital services.<sup>7</sup>

General practice was recognized as a medical specialty in 1963.<sup>7</sup> Initially the specialty failed to

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**Table 1. Health Indices of Some Middle Eastern Countries.**

Country	Life Expectancy at Birth (years)	Infant Mortality per 1000	Per Capita Gross National Product (US\$)	Index of Social Setting
Bahrain	69.2	32	9,280	High
Israel	75.5	11	6,210	High
Kuwait	71.6	23	19,870	High
Lebanon	65.0	48	1,013	High
Libya	58.3	97	8,510	Upper middle
Saudi Arabia	60.9	85	16,000	Upper middle
United Arab Emirates	67.6	38	23,770	High
United States	75.0	10	17,430	High

From references 1-4.

attract local graduates and was treated as an inferior specialty. Community-oriented health care was started through the pioneer health center in Kiryat Hoyovel in Jerusalem as a model teaching unit for the University Department of Social Medicine.<sup>6,8</sup> Currently there are 66 programs with a total of 237 residents.<sup>8</sup>

The first department of family medicine was established in the University of Tel Aviv, Sackler Faculty of Medicine,<sup>9</sup> where all students underwent 4 years of training and an obligatory clinical clerkship.<sup>9,10</sup> This unique department provided the major inspiration for family medicine for many years. Later academic family medicine departments were established in Jerusalem, Haifa, and Beersheba,<sup>11</sup> one with an integrative community-oriented undergraduate curriculum. In 1975 national examination boards were established, and the Israel Association of Family Physicians was created in 1977. In 1980 the Department of Family Medicine at Tel Aviv introduced the first academic study program leading to a postgraduate diploma and a master's degree in family medicine.

The residency curriculum training, which extends for a 4-year period after completion of the mandatory internship year,<sup>12</sup> involves the following rotations: (1) full-time hospital rotations (27 months); (2) full-time clinical practice (21 months), including assistantship in the tutor's practice and independent practice with tutelage (12 months); (3) postgraduate diploma studies relating to family practice concepts and skills, family and community-oriented health care, and practice organization; and (4) board examinations: The primary examination is usually written, after which there is an oral clinical assess-

ment. Successful completion of the program entitles residents to specialist certification by the Health Ministry.

Radical reorganization of the health care system is needed to increase resources and support for family and primary care medicine.<sup>13,14</sup> The quality of residency training could be greatly improved, as traditional hospital rotations are more oriented toward service rather than toward the objectives of residency training. The relevance of hospital experience should be viewed in relation to the clinic setting in which the residents will ultimately practice. Recertification is not mandatory for maintaining professional licensure or specialist certification; nevertheless, the Scientific Council of the Israel Medical Association has acknowledged the importance of regular continuing medical education in maintaining professional competence. The progress and the development of family medicine as an independent academic and clinical specialty in Israel has been very impressive during the past two decades.

### Lebanon

Accurate demographic data in Lebanon are difficult to acquire. The Lebanese population was estimated to be 2.6 million in 1975. With the population growing by an estimated 2.1 percent per year, the present Lebanese population is believed to be 3.4 million.<sup>15</sup> Estimates are 30.3/1000 for crude birth, 7.7/1000 for crude death, and 49.2/1000 for infant mortality rates,<sup>16</sup> reflecting an intermediate level between developing and developed countries (Table 1).<sup>1-4</sup>

In 1983 the number of physicians in Lebanon was estimated to be 2950, about 1 physician for

every 1000 persons.<sup>17</sup> The current specialist physician population in Lebanon is 57 percent; 43 percent of physicians have a medical degree without additional formal training in a primary care specialty and work as general practitioners.<sup>15,17</sup> It has recently been estimated that there are now 10,000 working physicians in Lebanon, representing about 1 physician per 340 persons. A cross-sectional study involving general practitioners in Beirut found that the concepts of family medicine are not adequately practiced by general practitioners and that this specialty needs to be developed in Lebanon.<sup>18</sup>

After gaining independence in 1943, a full-fledged Ministry of Health and Public Relief was created. A network of public hospitals was constructed, totaling 21 hospitals within 15 years.<sup>17,19</sup> The National Social Security Fund was established in 1964 as an adaptation of the European model of social security schemes.<sup>17,20</sup> The National Social Security Fund adopted the fee-for-service mode of reimbursement, which led to the flourishing of private hospitals and increased utilization of physician, laboratory, diagnostic, and pharmaceutical services.<sup>17</sup> Although the financing of medical care was to be entrusted to the National Social Security Fund to which all citizens would eventually subscribe, the actual provision of services fell within the realm of all health providers and institutions in the private sector.<sup>17,21</sup>

Health care has been among the hardest hit of all sectors during 15 years of civil war in Lebanon,<sup>17,22</sup> resulting in progressive fragmentation, disruption, and the ultimate disappearance of a functional health care system for an increasingly impoverished and vulnerable population. Concern for emergency care, care of the injured and handicapped, and relief of refugees have remained the Ministry's utmost priorities for well beyond 15 years.<sup>17</sup> Demand for publicly supported rehabilitative and therapeutic services has intensified.<sup>17,22</sup>

The public sector had been reduced to a "contracting" agency, in which financing the hospitalization of patients and their diagnostic, pharmaceutical, and other medical needs occurs with very little monitoring or control over professional conduct, management of care, or pricing. Excessive cost inflation for all types of health services and rapid expansion in hospital construction in the for-profit private sector took place at a time

when other sectors of the Lebanese economy were declining because of the war. For example, 55 new hospitals, or one fourth of all hospital facilities, were licensed within the first 6 years of the current turmoil.<sup>17,23,24</sup>

The health care system is mainly oriented toward therapeutic and episodic care, with occasional attention to disease prevention, health promotion, and primary care. The entire range of public health activities accounted for only 2 percent of the operating budget of the Ministry of Public Health in 1982.<sup>17,25</sup>

Since its establishment in 1866, the American University of Beirut has played a leading role in Lebanon.<sup>17</sup> The university initiated a family medicine residency program in 1979 with the intention that the program would graduate physicians who would meet many of the health needs of the community. Since that time the residency program has been graduating 3 to 6 family physicians per year. Thus far, only 52 family physicians have been graduated. These family physicians have either gone into solo, fee-for-service practice; worked in salaried health insurance plans; joined the faculty of the three medical schools in Lebanon; emigrated to work in Persian Gulf countries; or left for further training in the United States and other foreign countries.

Family physicians in Lebanon have full admitting privileges in most hospitals but, except for faculty members, have usually chosen not to practice obstetrics.<sup>17</sup> The Department of Family Practice at the American University plays a major role in the continuing education of general practitioners in Lebanon, where formal 1-year training programs are conducted by the four primary care departments in the hospital: family practice, obstetrics, pediatrics, and internal medicine. Continuing medical education is offered to family practice residency graduates through daily noon conferences and grand rounds.<sup>17</sup>

The residency training program curriculum is structured along the guidelines set by the American Academy of Family Physicians and the American Board of Family Practice. It is a 3-year program after 1 year of internship, which may either be rotating or in any specialty. Residency training is supervised by faculty members, who are themselves family physicians. The Family Medicine Practice Center is near the American University of Beirut Medical Center, where family medicine

residents provide in-hospital care for their patients.<sup>17</sup> Although the center is not equipped to care for trauma patients, who are seen in the emergency department, family physicians participate in emergency care by going through required emergency department rotations. In addition, the senior family practice resident on call is part of the emergency department team, which includes other senior residents in the hospital and handles sudden mass casualties of war.<sup>17</sup>

Fourth-year medical students at the American University of Beirut rotate for a 1-month clerkship in the Department of Family Medicine. During this time students attend didactic sessions including lectures and case discussions, participate actively in supervised clinical practice at the Family Medicine Practice Center, and visit three community sites.

In spite of the situation in Lebanon, the American University of Beirut still has a major role in the region. Since its establishment, the Department of Family Medicine has participated in the design, launching, and maintenance of the family practice residency in Bahrain. This affiliation was maintained until 1995, and faculty members participate in the teaching and certification of residents of this program. It is worth noting that the program has had a positive impact on the promotion of family practice in the Persian Gulf region.<sup>17</sup> Faculty members from the department taught an introductory course on family medicine for 1 month at the University of Amman in Jordan, where a new residency program was started in July 1994 with the help of visiting faculty from Brown University. A similar course was also taught in Arbad, Jordan, in February 1995.

Residents in the Department of Family Medicine are trained to practice family medicine at individual and family levels. In the future, training will be extended to the community level by including didactic teaching, seminars, and field work. The aim is to graduate family physicians who are oriented to the practice of community medicine so that they will be able to assume a major role in the health care of their community.<sup>17</sup>

### **The Persian Gulf Region**

The Arab countries in the Persian Gulf region are closely tied through unified geographic, cultural, religious, social, political, and economic relations that have resulted in similar major health issues,

particularly among Saudi Arabia, Kuwait, Qatar, the United Arab Emirates, Oman, Iraq, and Bahrain. Most of the health care systems are relatively modern—having evolved during the past 30 years. These health care systems were established on the basis of a national commitment to comprehensive health care of individuals and communities that is accessible, equitable, and equal to all, and has no financial barriers to consumers.<sup>26</sup>

Health problems in this region are similar to those of industrialized and developing countries. For example, ischemic heart diseases, malignancy, cerebrovascular disease, road and traffic accidents, diabetes, hypertension, and psychiatric diseases are recently becoming more widespread, while the infectious and epidemic diseases endemic to developing countries are still encountered in varying degrees.<sup>26</sup> There are wide ranges in some basic health indicators, such as infant and child mortality, life expectancy at birth, and health resources (Table 1), caused by geographic variations, availability of resources, the effectiveness of the health care systems in dealing with major health problems, and the degrees of education, basic sanitation, and urbanization.

All these countries share a very high fertility rate, in addition to a strong dependence on immigrant labor, and reduced mortality from improved health care, especially during childhood. The result is an annual population increase of 4 to 6 percent in most Persian Gulf countries, which requires a doubling of health services and facilities every 12 to 20 years. This situation is rarely faced by countries elsewhere.

The most important problem faced by all Persian Gulf countries is a shortage of national health manpower. Physicians, nurses, and health technicians who are nationals account for only 5 to 10 percent of the health care workforce, obliging most of these countries to rely on foreign health manpower. Because of the diversified background of foreign health care workers, continuing education is needed to raise their professional competence and improve the quality of care.<sup>26</sup>

Health facilities and services, which were developed largely without any systematic planning, then managed with uncoordinated or nonexistent information systems, are in urgent need of improvements in planning and management, regionalization and reorganization suitable for local and national needs, and planned growth. The

major emphasis given to hospital construction has probably been helpful, because these countries have historically lacked hospital beds. As a result, however, cost of care, especially hospital services, is escalating at the expense of more essential services, such as primary care, emergency medical care, health promotion, environmental protection, and other public health programs.<sup>26</sup> The rapid growth of health care facilities has created further problems with coordination and integration among primary, secondary, and tertiary levels of care. Tertiary care is mainly provided outside the Persian Gulf countries by sending patients abroad for treatment. Legislative policies and regulatory activities for control of environmental hazards and safety of food and drugs are still inadequate to protect the health of the people.<sup>26</sup>

Total financing of health care by governments with no cost-sharing for services is not available in any of the Persian Gulf countries. Such coverage might not be possible in the future, because cost of care continues to escalate. There is a widespread dependence on the government and overutilization of available health services.

### **Saudi Arabia**

Saudi Arabia relies mainly on expatriates to run its health care facilities. Saudis make up only 5 to 8 percent of the physicians and about 10 to 15 percent of the nursing staff, most of whom are naturalized citizens. The Saudis have placed great emphasis on training indigenous medical personnel. Although the number of physicians, nurses, and technicians has increased by more than 60 percent in the last 5 years, the ratio of physicians to beds in Saudi Arabia is still low, because the number of hospital beds is also increasing. Medicine is a popular choice among Saudi students, many of whom study abroad. When the Saudi students return, they generally need further special training in three specific areas to practice in the kingdom: treatment of specific Saudi or Middle Eastern diseases; an understanding of different attitudes of Saudi patients, who sometimes view the physician with skepticism; and experience in practicing independently of former faculty and mentors.<sup>26</sup>

Health care services, including prescription medications, are free to all residents and expatriates. As a result, health care costs are very high, as reflected by the substantial allotments for health

care in the national budget. Recently recognized as important, preventive medicine, primary care, environmental health, and coordinated health planning are becoming components of the national health policy of Saudi Arabia. Family medicine is gradually gaining acceptance among Saudis and the medical profession.<sup>16</sup>

Traditional attitudes affect the delivery of health care. The role of women, for example, is limited by a tradition that male patients should not be cared for by women who are outside the immediate family. In addition, the nursing profession is held in low esteem even by women with few work opportunities open to them. These attitudes are being relaxed to allow Saudi women to train and work as nurses, although facilities and staff are still extremely limited.

### **Bahrain**

Bahrain, a small island in the Arabian Gulf with an area of 692 square kilometers, has 350,478 inhabitants. Medical services are provided by a well-developed government health care system and a few private health care facilities.

The concept of providing organized health care was established in Bahrain in 1925 on a simple system in which a general practitioner was in charge of primary, secondary, and preventive care. After independence was gained in 1961, the health care system adopted the Alma Ata doctrine of primary care. Before 1980 primary health care was provided mostly by non-Bahrain physicians. This provider network was incorporated into the health centers, which had facilities and services divided into three groups according to city and population size.

Currently the health care system in Bahrain is oriented toward primary care. The island has 19 health centers dispersed evenly throughout all residential areas, so that a health center is accessible to the general population. Each center is operated by a team of 3 to 9 physicians and 2 to 5 nurses. At least 1 certified family physician is included within each health center; the other physicians have training in internal medicine, pediatrics, or obstetrics and gynecology. The total number of working physicians in the health center system is 125. Every health center has a modern operating theater for minor surgery.<sup>27,28</sup>

The government, believing that it needed a new primary health care system, decided to de-

velop a family medicine program to prepare physicians to be leaders in primary care.<sup>27,28</sup> Because the Arabian Gulf University in Bahrain lacked the academic staff and a defined structure to start a residency program, the American University of Beirut and its Family Medicine Program participated actively in the design, establishment, and maintenance of the family practice residency in Bahrain. The residency was started in 1979 as an affiliated program and is reevaluated each year by a joint committee from both the Arabian Gulf University in Bahrain and the American University of Beirut. Consultants in family medicine and other specialties from the American University of Beirut visit the Bahrain program every 2 months for 2 weeks. They provide clinical teaching in health centers as well as a series of seminars for all the residents.<sup>17</sup>

The Bahrain program consists of a 3-year residency training program similar to that at the American University of Beirut Medical Center. Residents spend the first 2 years at the Salmaniya Medical Center. The 3rd year is devoted exclusively to ambulatory primary care medicine based at a health center.<sup>27,28</sup> At the end of their training residents must pass a required examination for certification as family physicians. Their diploma is granted by the American University of Beirut.<sup>17</sup> After graduation the Bahrain family physician has many practice opportunities offered through the government. He can practice family medicine in one of the health centers or become a physician in charge of a health center. He can join the academic faculty of the residency program or can obtain further training in community medicine and public health and become a consultant in these fields. Graduates may also elect to travel to other Gulf countries to practice where an increased awareness of the need for family practice exists.

Family medicine in Bahrain has not yet developed its full potential. Family physicians have been denied hospital admission privileges; in addition, the public continues to resist the idea of male physicians being involved in gynecologic care and obstetric practice.

In 1993 the examination for the Arab Board for Specialization was started at Salmaniya Medical Center in the following specialties: internal medicine, obstetrics and gynecology, pediatrics, and family medicine.<sup>27,28</sup>

## Kuwait

Kuwait is a small country in the corner of the Arabian Gulf. Since the discovery of oil, it has undergone phenomenal change and rapid population growth, mainly through immigration.

Kuwait follows a traditional system of primary health care based on local clinics and polyclinics in which there are usually separate facilities for female and male patients. Local clinics with a staff of general practitioners, nurses, and ancillary personnel offer primary health care services and some pharmaceuticals. These clinics usually serve approximately 9000 people. The polyclinics, which serve a population ranging between 30,000 and 90,000, are staffed by well-qualified obstetrician-gynecologists and other specialists.<sup>29,30</sup> Polyclinics usually have basic radiographic and laboratory services in addition to more comprehensive dispensing facilities. The health care system is available to all free of charge.

Most health care workers are salaried and state employees,<sup>30</sup> and most general practitioners have received little or no training in family medicine. A 20 percent turnover of general practitioners in local clinics comes from their leaving for hospital posts. There is a tendency for patients to shop around between clinics, and medical records are almost nonexistent, resulting in fragmentation and a lack of continuity of care. General practice has been viewed by both hospital specialists and the public as a low-status specialty. Clinical standards have been unsatisfactory, and overprescribing has been widespread.

In 1983 none of the 600 general practitioners was of Kuwaiti nationality. In 1984 the Ministry of Health decided to start a family medicine program to train family physicians to provide a comprehensive, patient-centered approach within primary care. The family physician was to act as an integration force between primary and secondary care. To build local capability as quickly as possible, the Kuwaitis realized that they had to rely initially on outside help, in this case the United Kingdom.

Two model centers were selected for training. Of the 600 general practitioners 14 physicians were selected to join the new training program, and an intensive training program was designed to instruct these physicians in the skills necessary for their teaching and service roles. Four 2-week courses were taught by United Kingdom tutors

on clinical methods, consultation skills, pediatrics, and teaching methods, and formal assessments of these physicians were carried out by 2 United Kingdom assessors. Of the 14 selected physicians, 10 were appointed as trainers, while 13 were recognized as family physicians.<sup>30</sup>

The first group of residents entered the new residency training program in October 1985, with their training structured along the English model, in which an initial period of 3 months in a designated family practice training center and 2 years of rotating hospital posts are followed by attachment to a family practice for 9 months. In addition, a weekly day-release program is organized by the family practice trainers. All residents are required to attend five 2-week courses taught by United Kingdom tutors. These courses, which include diagnosis, patient management, consultation skills, and pediatrics in family practice, are mainly problem based, using a small-group, interactive approach. An important aspect of the new program in family medicine is that 90 percent of the last 80 trainees are Kuwaiti. In the autumn of 1987 the first diploma examination took place under direct supervision of the Royal College of General Practitioners (RCGP) in the United Kingdom. The qualification is known as the diploma in family practice (RCGP/Kuwait). This qualifying examination is considered a regulatory end point assessment.<sup>31,32</sup> Initially this examination was administered only by RCGP external examiners, but since 1993 examining duties have been shared by internal and external examiners. The Kuwaiti Institute for Medical Specialization has recognized the diploma as equivalent to that granted by the Medical Royal College of Physicians (MRCP) and Fellow Royal College of Physicians (FRCP).

The Gulf War greatly damaged the infrastructure of Kuwait. Throughout the war a number of family physicians provided medical care to the people from their homes. The population became dislocated as many residents, including family physicians, either chose or were forced to leave Kuwait. Of 34 family practice diplomates only 25 remained; of 30 trainees only 15 stayed; of the original 10 trainers only 5 remained. This loss set the development of family practice back by about 5 years. The roles of the senior trainers were expanded to include acting as co-examiners in the diploma examination. The trainers were also

asked to serve as co-tutors for all formal courses planned for 1995.<sup>30</sup>

Family practice in Kuwait is formally and publicly recognized as a medical specialty, and family physicians account for 10 to 15 percent of physicians working in primary care. They provide a broad range of comprehensive, high-quality medical care.

The family medicine training program continues to attract trainees of high caliber. This training has led to a recognized postgraduate qualification, and local self-sufficiency is increasing.<sup>30</sup>

### **Libya**

Libya has been trying to reorient its health priorities to meet the health needs of the family and individual, and the focus of health planners is centered on primary health care.<sup>33</sup> By 1982 the government had established 98 polyclinics, 103 health centers, 743 community health units, 127 maternal and child health centers, and 98 school clinics to provide primary health care for its estimated 3.2 million population.<sup>34</sup>

The Department of Family and Community Medicine at Al Arab Medical University, Benghazi, has evolved the concept of the family as a model for the provision of primary health care. The model family clinic, based at Al-Keesh polyclinic and run by 5 teaching staff members of the department, serves a population of 5000 people living in houses provided by the Secretariat of Housing, Benghazi. The family clinic uses all facilities of the polyclinic, but the families report directly to the family clinic, where family folders are maintained.<sup>35</sup>

### **Conclusion**

There is an increased emphasis on health issues in the Persian Gulf region. Most countries in the region are committed to primary health care and to the World Health Organization policy of "health for all by the year 2000." Family medicine has an important role to play in achieving these goals, although it is a specialty that was recently introduced to the region and is still in need of nurturing and attention. By the year 2000 the population of the Arabic countries and Israel will approach 300 million, and 29,000 family physicians will be needed to provide health care, but there are only 12 residency programs in the Arabic countries graduating 100 residents each year

at most, with an additional 80 residents graduating annually in Israel.

Maldistribution of family physicians is commonly found in the region. The income, standard of living, and professional respect of Middle Eastern family physicians are inferior in general to those of US family physicians, for they enjoy little of the political and social strength accorded to family practice in the US and Europe. Nationalized care in some Persian Gulf countries has resulted in primary care services being relatively demeaned. In most medical schools in the region, integration of family practice education is lacking for medical students, residents, and practicing physicians, and a notable lack of enthusiasm by departments of family medicine exists for developing and sanctioning specialty practice, such as geriatrics or sport medicine. Nevertheless, despite the current problems, there is great enthusiasm in all countries at both the academic and governmental levels for furthering the cause of general practice and improving training.

There is a great need for a regional association of family physicians, in addition to more collaboration with other international associations of family physicians, including the American Academy of Family Physicians, the Royal College of General Practitioners, the Society of Teachers of Family Medicine, the World Organization of National Colleges and Academic Associations of General Practitioners/Family Physicians, and others.

Finally, family medicine societies should be established in the Middle East, including a Society of Teachers of Family Medicine, a Middle Eastern Association of Family Physicians, and an Association of Departments of Family Medicine.

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