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# Appendixes

## **Appendix A**

# **Selected Medical Services Projects in the Middle East**

**Table A-1.—Medical Services Contracts in Saudi Arabia**

<u>Project</u>	<u>Awarded to</u>	<u>Ownership</u>	<u>Public or private</u>	<u>Supplier nation</u>	<u>Location</u>	<u>Year of initiation</u>	<u>Product Ion level</u>
1) Hospital staffing and management	Whittaker Saudi Arabia, Ltd.	70% U.S. Corp. Khalid Bin Abdullah Bin Abdulrahman Al-Saud	30% HRH Ministry of Defense and Aviation (MODA) contract w/joint venture U.S. Corp. and private Saudi partner	United States	Jeddah. Khamis Muchayt, Tabuk	1981	To staff and operate 3 hospitals
<i>Size of personnel:</i> 2,000 to begin, later to double <i>Dollar value:</i> \$334 million <i>Major Saudi participants:</i> MODA. private partner							
2) Hospital area 15H	Kuk Dong Construction Co., Ltd./Al Mashrik Contracting Company	Korean and Saudi joint venture	MODA contract with Korea private joint venture companies	Korea	King Khalid Military City, Al Batin	1981 completion date mid-1985	To build a 300. bed hospital
<i>Size of personnel:</i> unknown <i>Dollar value:</i> \$164.8 million <i>Major Saudi Participants:</i> Al Mashrik Contracting Company							
3) Four 100-bed hospitals	Dragages et Travaux Publics/EI Seif Engineering and Contracting joint venture	France and Saudi Arabia	Ministry of Health (MOH) contract with private joint venture	France	Ula, Qunfuda, Rabigh, Adum	1981	To build, equip. furnish four 100-bed hospitals
<i>Size of personnel:</i> unknown <i>Dollar value:</i> \$199.6 million <i>Major Saudi participants:</i> El Seif Engineering and Contracting <i>NOTES:</i> Subcontractor: AEG of Germany for electrical work							
4) Hospital management	International Hospital Group (IHG) [Major competition came from Belgium, France and Us.]	United Kingdom	Saudi Arabian National Guard contract with private firm	United Kingdom	Jeddah	1981	To commisston and operate the 500-bed National Guard hospital in Jeddah constructed by Eurosystem Hospitalier of Belgium
<i>Size of personnel:</i> approximately 1,500 <i>Dollar value:</i> \$272.8 million <i>Major Saudi participants:</i> — <i>NOTES:</i> Subcontractors include: International Aeradio, Grand Metropolitan, the Wellcome Foundation, PA Management Consultants, Peat, Marwick, Mitchell and Co , International Laboratory Services, Cusdin, Burden and Hewitt, Donald Smith, Seymour and Rooley, and Hanscomb International for services ranging from accountancy to architecture to specialized consultancy work							
5) Hospital management	Hospital Corporation of America (HCA)	United States	National Guard contract with private firm on a government to government basis	United States	Riyadh	1982	To staff and manage the 500 bed hospital for 30 months
<i>Size of personnel:</i> 1,500 by end of contract <i>Dollar value:</i> \$350 million <i>Major Saudi participants:</i> National Guard							

Table A-I.—Medical Services Contracts in Saudi Arabia (continued)

Project	Awarded to	Ownership	Public or private	Supplier nation	Location	Year of initiation	Product ion level
6) Two 100-bed hospitals	Laing Wimpey Alireza	Laing Wimpey Alireza, a U. K./Saudi joint venture	MOH contract with private companies	United Kingdom, Italy, Canada	Bakeriyya and Mizheb	1981	To construct two 100-bed hospitals each with maternity wards, gynecology, physiotherapy, pediatrics, radiotherapy, dentistry, two operating theaters, blood bank and hematology lab,
<i>Size of personnel: Unknown</i> <i>Dollar value: \$90.9 million</i> <i>Major Saudi participants: Alireza</i> <i>NOTES: Subcontractors include: John Laing Design Associates, Totaltermica, Redi Electric, Arabian Consultant Engineering Center, Canadian Health Care.</i>							
7) Hospital	El Seif Engineering and Contracting;/ Dragages et Travaux Publics/Samsun Construction Company	Saudi, French. Korean	MOH contract with private companies	France, Korea,	Qatif	1981	Construction of a 345-bed hospital with screening clinic, ancillary buildings, housing, and all medical equipment
<i>Size of personnel: Unknown</i> <i>Dollar value: \$102.3 million</i> <i>Major Saudi participants: El Seif</i>							
8) Public Security Hospital-Phase II	Ballast Nedam Group and Gustav Epple (design by Llewelyn-Davies Weeks)	Netherlands and West Germany (U K.)	Ministry of Interior contract with private firms	Netherlands, West Germany (U K.)	Riyadh	1981	To expand existing 105-bed PSH to add 179 beds and establish 8 intensive care units, 4 units for heart patients, 7 operating theaters, and outpatient facilities
<i>Size of personnel: Unknown</i> <i>Dollar value: \$166.7 million</i> <i>Major Saudi participants: —</i>							
9) Health services	Charter Medical Saudi Co., Ltd.	Joint venture between Saudi Medical Services (90%) and Charter Medical Corp. (10%)	MODA contract with private companies	United States	King Khalid Military City near Hafra Bat in	1982	To provide complete health care services to KKMC including 100-bed acute general care hospital and related clinics
<i>Size of personnel: Unknown</i> <i>Dollar value: \$113 million</i> <i>Major Saudi Participant: Saudi Medical Services</i> <i>NOTE: Medcom of the U.S. has \$7.8 million subcontract to supply hospital training programs</i>							
10) Riyadh Medical Complex	Medical (Project delayed) —	—	MOH contract offer —	—	Riyadh	1983 +	1-400-bed medical complex
<i>Size of personnel: Unknown</i> <i>Dollar value: Unknown</i> <i>Major Saudi Participants: —</i> <i>NOTE: One of the biggest projects planned in the MOH 1980-85 program—status now uncertain. Plans for the complex were drafted by Rogers. Burgun, Shahine, and Deschler (U. S.) and Saudi Arabian Management Engineering and Research (SAMER) (joint venture Saudi-U S.)</i>							

SOURCES Office of Technology Assessment

Table A-2.—Major Projects and Sources of Investment in Medical Services in Egypt (1971-1981)

Source of funds	Project	Foreign nations involved	Contractors	Product	Year started	Level expenditures	Comments
1. Private sector							
Equity: Saudi/Egyptian debt: Barclay's Basnco di Roma Misr. Int'l.	Arab Contractor's Hospital		European equipment	Hospital		\$17 million	
Equity: Saudi, German, Egyptian debt: Egyptian, German banks	Misr. International Hospital		European equipment	150-bed hospital		\$6.5 million	
Equity: Saudi, Egyptian, American (12.50/0), Gulf States	As-Salam International Hospital	1-U.S. 2-Korea 3-United Kingdom	American Medical International Dongsan Construction and Engineering Widnett & Trollope	300-bed hospital management construction quantity surveyor	1980	\$56 million planned \$80 million actual	AM I has withdrawn from management
Equity: Egyptian, Kuwaiti debt: 70%0	Cairo Hospital		European equipment	80-bed hospital		\$30 million	
	Squibb Factory	United States		drugs			Only fully private drug factory in Egypt
II. Public/private joint venture							
	Pfizer Company Egypt Swiss Pharma Hoescht Orient El Qahira Co.	United States Switzerland Germany Arab		pharmaceuticals		\$20-23 million	Plan as of April, 1979; new factory in Ramadan. Joint venture with Arab Investment Co. for medical industries and medical requirements

Table A-2.—Major Projects and Sources of Investment in Medical Services in Egypt (1971-1981) (continued)

Source of funds	Project	Foreign nations involved	Contractors	Product	Year started	Level expenditures	Comments
III. Public sector	Chemical Industries Co.				1978		New plant in Giza
	Memphis Co.				1978	\$7 million	New factory in Cairo
	Misr Pharmaceutical Co.					\$7-10 million	New plant in Abu Zaabal
	El Masr Pharmaceutical Co.	People's Republic of China					Four new plants
	Arab Pharmaceuticals Co.				1978		Tablet and capsule medicines
	Alexandria Drug				1978		Expansion to include veterinary
Japanese Gov't.	Pediatric hospital	Japan	Egyptian engineers medical equipment	240-bed hospital	1979	\$30 million grant	Opened 1982, in Cairo
Japanese Gov't.	Medical Education Technology Center	Japan		Closed circuit TV	1982	LE 1 million grant	Equipment additions donation
French Gov't.	Suez Canal University Teaching Hospital	France		teaching hospital	1982	\$20 million grant	
	Ismailia Medical School				1977		Opened October 1981 at Suez Canal Univ.
	Assiut University Teaching Hospital			over 1,000-bed teaching hospital			Will open 1983
	Ein Shams University Hospital		over 1,000-bed hospital				Under construction
	Gamul Abdel Nasser Hospital			over 1,000-bed cancer hospital			Under construction
	Cairo area hospitals			hospitals	1979-82		thirteen opened totaling 2,500 beds
Ministry of Health	medium sized hospitals			100-140 bed hospitals			Sixteen hospitals under construction totaling 4,600 beds

SOURCE: Office of Technology Assessment.

**Table A-3.—Medical Services Contracts in Algeria 1979-82**

Description of project	Client	Contractor	Location	Value of contract	Year
1. Provision of technical services and medicines for a plant to make antibiotics	Ministry of Health	Indian Drugs and Pharmaceuticals (India)	Medea	Not stated	1979
2. Supply of four mobile laboratories to analyze water and noise pollution	Ministry of Health	Ecopol (France)		Not stated	1980
3. Supply of 50 refuse presses and staff training	Ministry of Health	Martex (France)		\$980,800	1980
4. Supply of 100 incubators for premature babies	Ministry of Health	Vickers Medical (United Kingdom)	—	\$264,700	1980
5. Preparation of studies for hospital	Ministry of Health	Uniconsult (Sweden)	Constantine	Not stated	1981
6. Supply of dental equipment	Ministry of Health	Nissho Iwai Co. (Japan)		\$1 million	1981
7. Construction of three hospitals	Ministry of Health	Maurice Delens & Batipont Int'l. (Belgium)	El-Cheliff	\$38.8 million	1982
8. Supply of dental equipment	Ministry of Health	Nissho Iwai Co. (equipment manufacture by Yoshida (Japan))	—	\$1 million	1981
9. Pharmaceutical plants feasibility study	Ministry of Health	Chemokomplex (Hungary)	—	\$230,000	1982

SOURCE Office of Technology Assessment

**Table A-4.—Medical Services Contracts in Iraq**

Country	Year	Supplier	Description	\$ amount
France . . . . .	1980	Renault Industries	Construction of five hospitals	\$116 million
France . . . . .	1977	Institut Merieux Stodete	Provision of vaccine-producing plant	\$24 million
France . . . . .	1981	No Data	Construct two ophthalmological clinics in Baghdad	\$40 million
Ireland . . . . .	1981	Fay International Co.	Construction of hospital sewerage	\$0.5 million
Italy . . . . .	1982	Olsa Construction	Construct vaccine plant	\$3 million
Japan . . . . .	1979	Marunbenicorpstaiset Corp.	Construction of four 400-bed hospitals	\$1385 million
Japan . . . . .	1981	Marunbeni Corp. and Tisei	Hospital construction	\$60 million
South Korea . . . . .	1980	Hyundia Construction	Construct 2d stage Baghdad's medical city	\$338.6 million
Kuwait . . . . .	1981	No data	Construct 2d stage therapeutic institute	\$20 million
Spain . . . . .	1981	Huarte & Compagnia	Construction of pediatric and maternity hospitals	\$175 million
United Kingdom . . . . .	1982	Shanning International	Medical equipment	\$10.8 million
United Kingdom . . . . .	1979	Architects Co-Partnership	Design of reconstruction and expansion of Baghdad's General Hospital	No data
United States . . . . .	1980	Med Tech Int	Supply of three 0450 CT scanners, including installation, training and maintenance	\$3 million
United States . . . . .	1977	Roger Butler & Burgan Associates and Whiting Associates International Corp.	2d stage Medical City	\$89.6 million approx.
United States . . . . .	1980	Med Tech Int	Supply of renal dialysis equipment	No data
Yugoslavia . . . . .	1981	Sutjeska Fabrika	Supply of medical equipment	No data

SOURCE Office of Technology Assessment.

**Table A-5.—AID Health Programs in Egypt (million U.S. \$)**

Commodity Import Program .. ...1975	24.4 <sup>a</sup> 3.0 pending (for Grant 606 FY 83)	Medical Supplies. (Commodities are procured by various Government of Egypt Ministries and organizations as allocated by the Ministry of Investment and International Cooperation. These procurements are periodically announced in the A.I.D. Export Opportunities Bulletin, published by A. I.D. 's Office of Small Business.)
Strengthening Rural Health Delivery ..... 1976	14.9	This grant project is designed to assist the government to identify and validate, through field trials, the principal factors limiting the productivity and outreach of the rural health service, and to devise strategies to reduce or eliminate these factors.
Family Planning . ....1977	67.6	To strengthen family planning delivery services. The activities include: a) expanded community-based family planning services delivery programs in rural and urban areas; b) integrated health, family planning and social services delivery projects in the Menoufia and Beni Suef Governorates; c) development of a field training site in Alexandria; d) development of a training center at Al Galaa Maternity Hospital; e) a multi-media IE&C campaign; f) innovative activities to test new approaches to FP services delivery. Fiscal year 1983 last year of obligation.
Urban Health Delivery Systems ..1979	37.3	This project is designed to improve the delivery of urban health services, particularly maternal-child health (MCH), family planning and nutrition services, in Cairo and Alexandria. The activity emphasizes community involvement, the use of home visitors, the delivery of health services in the neighborhoods where people live, physical improvements to facilities, and cooperation between the health services of Cairo Universities and the Ministry of Health.
Suez Community Health Personnel Training . ....1980	13.2	This grant assists the GOE in improving health services, particularly primary care, by initiating an integrated medical education and health services program which relates educational investment directly to the health needs of the population. The funds are used to train health personnel to plan, manage and provide preventive and community-based primary health services, including maternal and child health, nutrition, family planning and environmental sanitation.
Control of Child Diarrheal Diseases . ....1981	26.0	To develop and initiate a national campaign to reduce infant and child mortality due primarily to diarrhea caused by dehydration.
Population/Family Planning II .. .1983	20.6	To give substantial further stimulus to the several programs centered around the provision of family planning information and services through public and private channels; also to stimulate further understanding of population and family planning issues in a manner which will increase demand for existing and new family planning services and result in significant reduction of the birth rate in the next few years.
Total . . . . .	261.6	

<sup>a</sup>Includes all but one loan for which the information is not available

SOURCE Agency for International Development, Doc. #1215H, Mar. 6, 1984