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Steps toward a Planning Framework for Elder Care in the Arab World

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Abstract and Key Words

Abstract This monograph is an effort to review the elder care literature of the Arab world. It does not claim to be comprehensive but hopefully will stimulate others to find holes in what exists now in order to extend the comprehensiveness. One important issue is that many Arab countries have a mandatory retirement age of 62 for government and teaching jobs with the possibility of extension to age 65 with yearly agreements, while those professions with low supply and high demand such as physicians and college professors have mandatory retirement ages of 69.

Age discrimination appears to be legal and many government and private jobs apparently are open for individuals who are no more than 45 years of age (which varies). Such policies can result in an increase in poverty among the elderly (who may rely on their adult children) and create long term structural unemployment resulting in the loss of the talents of employees between the age of 42 and 62 in occupations in demand.

The Arab world has some of the highest population growth rates in the world with rapid growth of the 60+ population. This growth has led to drops in GDP, as well as to increases in inflation and unemployment that are of concern. The decline of the extended family and the increases in the number of nuclear family units has begun to eat away at the support system that the elderly have had in the past. In addition, in less than a half millennium, farmers and nomads have found their way into urban areas that, in the main, did not exist in the first part of the 20th century.

The 22 countries of the Arab world have the advantage of having a unified language and culture that can be used to expedite the development of area wide approaches to a system of elder care. However, the lack of economic and political unification, such as a common market, common currency, open trade and free movement of commodities and labor across boundaries, present initial barriers.

Most of the population originally had a lower incidence of heart problems due to their Mediterranean diet and lifestyle such as farming and animal husbandry which mandated walking and working. However, with modernization and ease of transportation, the western diet with heavy focus on fast food has increased. Chronic diseases are extremely widespread in the area, with deaths from cancer, hypertension,

cardiovascular disease, and diabetes at all-time highs. The 60+ population has begun to use health care services at rates higher than the general population as a result. Costs are higher to support this group and the expertise and staffing are not available currently to meet the demand.

Key Words Arab • Elder Care • Middle East • North Africa

Contents

Introduction

This paper can be seen as a partial response to the WHO call for increased information on caring for the health of elderly Arabs. [The World Health Regional Office for the Eastern Mediterranean developed and published "A strategy for active, healthy ageing and old age care in the Eastern Mediterranean Region 2006–2015"]. [see note section at end].

The Arab World according to Mirkin [2010] "sits atop more than half of the world's oil resources". The 22 countries of the Arab World range from very small populations [Qatar] to quite large [Egypt] Ageing, as an issue in Northwest Africa, is a reality while Occupied Palestine and Sudan (we used here the old political unity of South Sudan and North Sudan) have very young populations. Geographically, Sudan is the tenth largest country in the world while Bahrain is among the smallest. Bahrain has very high population density while Libya has one of the lowest. The area has some of the richest countries in the world and some of the poorest. "According to the medium variant projection, the Arab Region will have 598 million inhabitants by 2050" "With a projected population of 130 million by 2050, Egypt is expected to be the 12th most-populated country in the world by mid-century" [Mirkin, 2010]. More importantly for this issue, "By 2050, the proportion of older persons is projected to climb to 19 percent"…….. and, "The number of older persons in the Arab Region will more than quadruple from 22 million in 2010 to 103 million in 2050" [Mirkin, 2010].

According to Boggatz et al [2009a], aging is an emerging phenomenon in Arab countries. The Arab Human Development Report (United Nations Development Program, Regional Bureau for Arab States, 2002) indicates that in the Arab region life expectancy at birth between 1950 and 1955 was 40.5 years for men and 42.6 years for women, in comparison to 2000, when it had reached 62.6 years for the male and 65.2 years for the female population. For 2050, this life expectancy is estimated to reach 75.2 years for men and 79.4 years for women (Economic and Social Commission for Western Asia, 2007). An increasing number of people aged 60 and older will be associated with an increase of disabilities and ensuing needs for nursing care."

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Further from Boggatz et al [2009b], "based on data from the Global Burden of Disease Study about severe levels of disability and the calculation of population projections, Harwood, Sayer, and Hirschfeld (2004) predicted an increasing number of dependent people in the Middle East. They demanded, however, improved data collection on this issue. Such data are required for an appropriate planning of nursing and other care services for older people in these countries. There has been a scarcity of such information. A somewhat detailed study in the recent decade about this topic was performed by Nandakumar, El-Adawy, and Cohen (1998) in Egypt. Based on a countrywide household survey including people older than 50, they came to the conclusion that 8.27% of this group suffered from at least one functional limitation as measured by the Activities of Daily Living Scale by Katz and Akpom (1976)."

The dependency ratio [population aged 60 over the population aged 15 to 59] "will almost triple ……in 2050". [Mirkin, 2010]. As a result, Abyad [2008] makes the point that "The less developed countries in the area will have much lower levels of economic development and access to adequate health care than more developed countries". "The Region is passing through the "Health Transition Phase," which is characterised by an unprecedented increase in both number and proportion of adults and elderly persons (Nasir & Abdul-Haq) [in Abyad, Adam and HO, 2008]. Abyad writes that the lower income countries in the area are "ill-prepared for such demands".

The fact that economic development in Arab countries is leading to a move away from the extended family [*al-ayleh al-kabiyreh*] to urban-based nuclear families in which wives are gainfully employed [this varies widely by country], means that the support network provided by the extended family is beginning to disappear. In some three or so short generations, a large part of the area has moved from agrarian and nomadic existence to city-dwellers relying on western fast-food diets such as KFC and McDonalds. According to Abyad [2008], "Policymakers must take two steps: "Shift health-sector priorities to include a chronic-disease prevention approach; and invest in formal systems of old-age support". This is, because [Abyad, 2008] Arab governments, in the main, have not begun to create prevention and lifestyle change programs. "…by 2015, deaths from chronic diseases, such as cancer, hypertension, cardiovascular diseases, and diabetes, will increase by 17 percent, from 35 million to 41 million (19)". There is evidence that prevention programs can reduce individual, institutional, and government health costs. [Abyad, 2008, reference 23].

Given the relative cultural and linguistic homogeneity of the Arab world and its economic, demographic, and social diversity, coordinated development of programs across these 22 countries [with perhaps North Africa taking the lead due to the urgency of the situation there], area-wide solutions are possible, Given the growth in internet-based telecommunications, this could be done more rapidly than would have been the case in the past. There would still be considerable challenges as pointed out by Jabbour [2012] who writes "In ….. the Gulf Cooperation Council [states], there is almost universal coverage of health services for nationals but limited coverage for expatriate workers." while in others, there is heavy reliance on privatized resources. To be taken into consideration, as well, are the challenges emanating from the ongoing Arab Spring which have created internal struggles and struggles between countries of the area. To what extent will the changes taking place dissuade expatriate health workers from settling in those Arab countries currently undergoing strife?

In the Gulf States, there are high percentages of in-migrants who are not likely, in the main, to become permanent residents. At the same time, Arab emigrants from Lebanon, Syria, Palestine, Iraq, and elsewhere are scattered around the world. The United Arab Emirates house a very high percentage of expatriates. A lot of these individuals send remittances to their relatives in their home countries. "While Emiratis represent 19% of the UAE population, domestic workers (housemaids, nannies, servants or home helpers) represent 5% of the country's population [according to 2007 statistics]. In Abu Dhabi alone. .. . . 6.0% of its population are domestic workers. All participants agreed that this is negatively impacting lifestyle interventions. "[Al-Ozaibi et al, No Date]. Could these foreign-born domestics be a source of elder care at the lower skill levels?

The reliance on expatriates for home and service support could make it difficult to train a permanent group of workers involved in elder care [although there may not be an option B]. While much of the rest of the world has begun to extend services to those most in need through the use of auxiliary workers, according to Jabbour [2012], "public health remains heavily influenced by the biomedical model and dominated by doctors. Its strength varies between countries but is generally poor. All countries have mixed health systems oriented towards services rather than a comprehensive population health approach."

In reinforcing what was mentioned above, Ypinazar states [2006] that "Modern development is a very recent arrival in the Arabian Gulf. In the United Arab Emirates (UAE), the first European-style health service was established in 1945; the first house of concrete blocks was built in Dubai in 1950 around the establishment of the first hospital (Heard-Bey, 1982). With the arrival of petrodollars in the late 1960s, development and modernization accelerated at a furious rate, so that by 2000, 96% of UAE citizens' (known as Emirati) households had a car, 98% a telephone, 60% a computer, and 60% Internet access (Badrinath et al., 2002)" [references are from Ypinazar et al, 2006]

The issue of most concern is that there appears to be little forward movement in planning for a growth in programs for the elderly although a number of scholars have already called for such an effort [Baranowski, 2009]. This monograph should be seen, then, as just one more call for action to address a problem that could overwhelm the area in the not too distant future. This paper works to build a integrative framework for care seeking and caregiving.

The WHO online publication [No Date] "Population nutrient intake goals for preventing diet-related chronic diseases, the care system that supports it" makes the following points:

- Obesity in middle-aged people has surfaced as a 'growing problem, " and with it comes the ever- so-familiar accompanying risks of diabetes mellitus and coronary heart disease.
- The Community-based National Epidemiological Household Survey indicated a 31.2 percent prevalence for being overweight (33.1% male and 29.4% female).
- Their dietary habits, which include high carbohydrate intake (via bread, dates, sugar and potatoes), are recognized as one of the leading factors in understanding the trend.
- The extreme environmental temperatures and complacent life styles of the population have a negative effect on the potential benefits of exercise. Recent surveys

indicate that less that 5 percent of the people in Saudi Arabia perform any kind of physical exercise.
- This laxity is naturally more prevalent in the elder segment.

In a 2007 Booz Allen Hamilton report referenced by Baranowski [2009], the points were made that

- it is fully anticipated that the markedly aging population is destined to fall victim to cancer and cardiovascular disease, further increasing demand on this kingdom's presently taxed health care system.
- It is said that: "By 2020, the number of old people is expected to grow from approximately 1 million (4% of the population) to roughly 2.5 million (7% of the population)."
- Due to rapid population increase and a resulting decrease in GDP/capita, "The reciprocal demand ……for hospital beds is expected to rise from the present status of 51,000 to one of 70,000, increasing the need for physicians from 40,000 to 50,000 and hospitals from 364 to 502." [Baranowski, 2009].
- Whether one agrees with a proposed solution or not, "The Saudi government has …….identified healthcare as one of the key sectors targeted in its wide-ranging privatization program. (Booz Allen Hamilton, 2007, p. 1)

Many factors play into the kingdom's statistics [Baranowski, 2009]:

- Long travel distances to health care facilities
- Inefficient patient records and histories
- Excessive testing and x-rays
- Lengthy in-patient stays
- Hospitality for the large number of visitors [family and otherwise]

A Program Assessment

The purpose of the monograph, as stated above, is to work toward the development of a planning framework for Elder Care in the Arab World. This monograph does not present a state of the art view but attempts to pull together current literature to identify gaps in elder care program development among the 22 countries of the Arab League. Works by Jabbour [2012] and Mourshed et al [2006] have helped move the discussion along.

Although they focus on US-based Naturally-Occurring Retirement Communities [NORCs], Kyriacou and Vladeck [2011] identify important elements of what should go into a national elder care program and could be used as a basis for a universal assessment framework in developing and/or improving national efforts. The elements overlap [see Fig. 1 below] and are as follows:

1. Self Care
   a) Empowerment
   b) Self-advocacy
   c) Lifestyle Choices

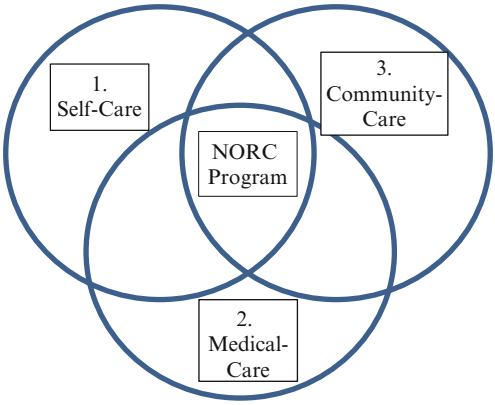

Fig. 1 Important elements of what should go into a national elder care program. [adapted from the United Hospital Fund, 2008]

2. Medical Care
   a) Diagnosis
   b) Treatment
   c) Disease Management
3. Community Care
   a) Environment
   b) Resources
   c) Support

At the same time, a linear framework focusing on planning and evaluation allows for assessment of the logic of relationships among structure, inputs, outputs, and program outcomes and the extent to which progress is being made in program development and areas of weakness in such programs. An adaptation of the Green/Kreuter Precede-Proceed Framework [2005] discussed in the next section has been used as an outline for the rest of this paper.

A1 Conceptual Framework

In an attempt to integrate a large amount of material in a meaningful way, Fig. 2 below was adapted from the Green/Kreuter Precede-Proceed Framework [2005].

The framework is based on the principle that people focus on improving their quality of life while improving health is seen as only one means of accomplishing this. While there are factors other than health which influence quality of life, health is the focus of this paper and health indicators that can be used to measure the extent to which optimal health levels for elders are or are not being achieved will be presented.

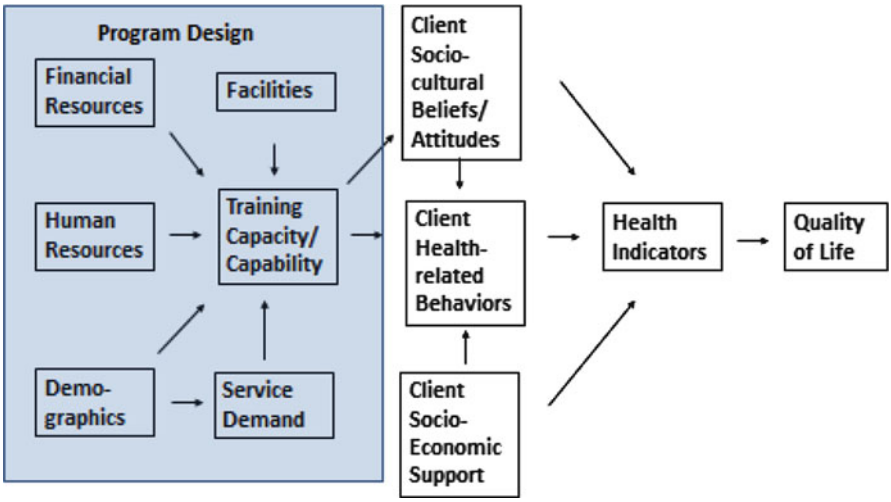

Fig. 2 Framework for Building Capacity for Elder Care Services [adapted from Green/ Kreuter, 2005]

Figure 3 below (Fuster et al 2011) focuses on cardiovascular health but its comprehensive nature helps in defining what is needed to address health through elder care in the Arab World.

Thus, issues to consider include:

a) Determinants of how ageing occurs
Typically, in the past, Arab families tended to be extended and multigenerational with the productive generation providing support to senior citizens and the young. Now, there is growing evidence that a movement to a nuclear family structure is happening at a rather accelerated pace [El-Haddad, 2003].

b) Policy Approaches that could enhance or have detrimental effects on the ageing process
The apparent wealth of the Arab World has to be put into perspective given that this area of the world has some of the highest growth rates and highest inflation rates [Kandil M, H Morsy, 2009]. This has resulted in rapid drops in GDP/capita. The stipends monarchs were able to give to princes and other royalty have dropped due to the burgeoning number of new royalty with each new generation. [Jabbour, 2012].

c) Health care delivery factors
The health system in the Arab World has tended to follow a western medical model with only modest effort aimed at preventive and promotive efforts. The system has tended to be physician-heavy partly because of the difficulty of recruiting women into the nursing field and the reluctance of many males to view nursing as a gender-neutral field. [Farag, 2008; Mitchel, 2009].

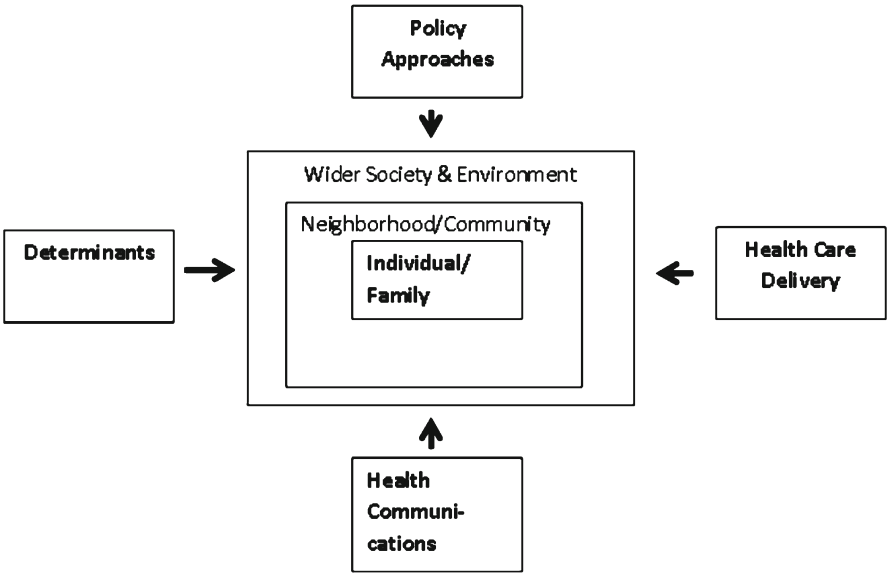

Fig. 3 A Comprehensive Approach to Cardiovascular Health

d) Communication or its absence
Communication in rural and nomadic culture tended to be among family heads. The creation of monarchies in states such as Iraq and Jordan by Britain and others and the transfer of land from common ownership to tribal leaders resulted in more of a top down pattern of communication than had been the case in the past. Decisions became more arbitrary and led to the development of class-defined society, something that goes against the basic tenants of Islam and Arab social organization [RTI International, [2005]. For prevention and promotion health efforts to be effective, communications will have to involve to a greater extent the patient and his/her family [El-Haddad, 2003].

At the same time, there are a number of overlapping systems to consider:

1. Patient's Family
Typically, decisions about health care are a family effort.

2. Industrial System
Questions to be asked are the extent to which elder care services are covered:
   - by businesses,
   - by the government, or
   - have to be borne by the individual and/or his/her family.

3. Educational System
Throughout the area, education tends to be directed to rote memory in a way which could work against the involvement of the individual and the family in the development of Individualized Family Service Plans [Early On Michigan Guide

to Individualized Family Service Plans in Arabic – No Date] to address lifestyle issues of the elderly [Al-Sinani et al, 2010; Moselhy et al, 2001]

4. Health Care Delivery System Components
   Intensive System
   As mentioned earlier, the medicalization of health care has meant an effort directed toward cure and rehabilitation rather than on promoting behaviors to reduce health risk factors. The intensive system here would include the health care continuum – preventive/promotive, primary, secondary, tertiary, rehabilitative, and hospice. A careful analysis is needed country by country.

   Supportive System
   The supportive system is where major attention must be given in creating a framework for elder care. Currently, there are a considerable number of untrained household helpers in a number of Arab countries [Abyad, 2008] While it might be possible to train these individuals as health auxiliaries, training would have to be on Arab culture and language so that immigrant workers could be effective in the household or elder care facility. The question of training members of the extended family would also need to be addressed.

5. Health sectors
   Kinesthetic Health
   There appears to be a shortage of Kinesthetic [functional] Health programs in the Arab World. It is possible that both men and women would have to be trained since service might need to be gender specific. The advantage to importing workers is that they could be trained and placed as needed. Their task will be difficult since physical inactivity seems to be a major factor in the rapid development of chronic, noncommunicable diseases. In-house exercise facilities will need to be developed for females since their geographic mobility is limited in many cases. Mobile services might be a way to address this. [Cornwell, 2009]

   Somatic Health
   Issues in dealing with senior citizens are:

   - a drop in vigor,
   - reduced muscle mass,
   - cardiac insufficiency,
   - lack of physical activity,
   - increasing sleep

   Mental Health
   According to Abou-Saleh et al [2001], the prevalence of mental health disorders in the United Arab Emirates (UAE) has increased over the past several decades. According to local estimates, approximately between 55% and 73% of patients attending primary care in the UAE suffer mental disorders (El-Rufaie & Absood, 1993). The commonest diagnoses were depressive disorders 55%, mixed anxiety-depression 13% and anxiety disorders 12%. [Moselhy et al, 2011]. The Government of the UAE has started addressing such issues and other addiction issues

correlated with mental health by opening Addiction and Rehabilitation Centers. However such facilities are primarily for citizens. In other words, the issues of access and affordability for the large population who are non-citizens need to be addressed to create a productive and health society.

A2 Arab World Elder Demographics

"The World Health Organization launched the International Year of Older Persons in October, 1998 with a view to "call upon policy-makers to recognize the importance of population aging and put this recognition into action" [Nandakumar et al, 1998].

Important issues to consider are:

- According to Sidik, et al. (2003), this is a result of dramatic declines in mortality rates (increased life expectancy) over the past few years and also sharp falls in birth rates, especially in nearly all developing countries. [Al-Ghanim, 2010].
- There were about 650 million elderly, aged 60 [the cut point for a number of Arab states] and over in the year 2007 and, by 2050, the world's elderly population is forecast to reach 2 billion (WHO, 2008)
- Globally, between now and the year 2025, the elderly as a percentage of the total population are projected to increase from around 10 percent to 15 percent (U.S. Bureau of Census, International Brief, 1997).
- In many developing countries, the elderly are the fastest growing segment of the population especially in Asia, the Near East, and North Africa. [Yount, 2008]
- The more advanced Arab countries have a higher female to male 65+ ratio. Is this due to a more sedentary male lifestyle or to more economic and social options?
- What explains the imbalance in those Arab countries with more ageing males than ageing females? [Population ageing in Arab countries economic and social commission for Western Asia - United Nations New York, 2007]

From an ESCWA report [2007],

It becomes obvious that there will be a significant increase in the old age dependency ratio [OADRs] before 2050.

- Currently, the old age dependency ratios are not tremendously different among the 22 countries. However, by 2050, the wealthier countries will have very high ratios and the poorest will have very low ratios due to their much younger population distribution and higher birth rates.
- Thus, the wealthier members of the Arab League may have to continue to import workers while the other Arab countries may be net exporters of workers seeking work abroad in order to repatriate money home
- "This trend will be exacerbated further when looking at the 80+ population.
- Alternately, Zaghloul [1991] suggested that those in the 30+ age groups in Egypt will actually increase in the short term helping lower the age-dependency ratio in the short run."

Other considerations include:

- In a chart providing a picture of 1987–2000, men are more likely to die than women from most causes in Kuwait. [El-Shazly et al, 2004].
- Iraq, perhaps partly as a result of its involvement in military conflicts & wars for a couple of decades, shows a growing gap with women increasingly outliving men through 2100
- In the absence of well-developed social security policies, the livelihoods of growing numbers of vulnerable workers may come under further threat. Vulnerable workers also include the region's large cohorts of migrant workers, who account for more than 60 per cent of the national labour force in most of the GCC countries. A prolonged slowdown in the international economy is likely to cause remittances, job creation, tourism and Official development assistance [ODA] to decline and unemployment to increase, particularly among the youth. [Behrendt et al, 2009]
- The Middle East [including most of the Arab World] has experienced the highest rate of inflation from 2007–10 in the World. With expanding populations reducing country GDP/capita, the long term negative impact could be major [Kandil M, H Morsy, 2009].

In Table 1, women make up 53.04% of the population 65+. The Gulf States appear to be the exception where men 65+ make up a larger percent of the population. [Figures are generated from %s & are close but not census-based]

Countries have been ranked in Table 2 below according to the % of the population over 65 years of age. What is not included is the extent to which non-natives are included in the totals. A high number of those states with the highest 65+ population are in North Africa.

The 65+ gender ratio can be an important issue in resource planning since elderly males will need a different configuration of resources than will elderly females. For the UAE, South Asians accounted for 50% of the total population at last estimate. Emiritis constituted 19%, while other Arabs and Iranians made up 23%. Other expatriates, including Westerners and East Asians, totaled 8%. Jordanians, Palestinians, Egyptians, Iraqis, and Bahrainis are employed throughout the bureaucracy, including the educational system. [Adam, 2007].

In most Arab countries, the 60+ population [often used as the cut point instead of 65+] is growing at more than 4% a year. The Old-Age Dependency Ratio [OADR] is the number of persons 65 years and over per 100 persons of age 15 to 64 years, yielding figures that are pretty much the reverse of the Elderly Support Ratio [Saxena - Ageing and Age-Structural Transition in the Arab Countries - Estimated Period of Demographic Dividends & Economic Opportunity [see slides 77–81].

Table 3 provides summary estimates of the number of individuals 65 years of age and older by Arab world region.

Table 3 shows that the North African states have the largest share of those 65 and older and also the most pressing needs in terms of percentages of the elderly. The Gulf States have the smallest percent of the population 65+ and currently the highest GDP/capita. Thus, initial efforts might be focused on North Africa with

Table 1 Number and Percent of Arab World Residents By Country and By Gender who are 65 years of age or older

Region	Country	% 65+	# of Males 65*	% of 65+ who are males	# of Females 65+	% of 65+ who are females	Total
North Africa	Algeria	5.1	798,576	46.23%	928,709	53.77%	1,727,285
	Egypt	4.3	1,546,774	45.9590%	1,818,778	54.04%	3,365,552
	Libya	4.4	136,224	48.9481%	142,079	51.05%	278,303
	Mauritania	3.4	44,836	42.5256%	60,597	57.47%	105,433
	Morocco	6	851,190	45.5044%	1,019,377	54.50%	1,870,567
	Tunisia	7.2	352,003	46.6030%	403,319	53.40%	755,322
SUBTOTAL			3,729,603	46.0305%	4,372,859	53.97%	8,102,462
Middle East	Iraq	3	410,395	46.6307%	469,701	53.37%	880,096
	Jordan	4.6	143,058	49.3685%	146,718	50.63%	289,776
	Lebanon	7.2	130,148	45.0841%	158,530	54.92%	288,678
	Palestine (WB)	3.7	37,471	41.5712%	52,666	58.43%	90,137
	Palestine (Gaza)	2.6	16,483	40.5137%	24,202	59.49%	40,685
	Syria	3.7	372,172	46.5213%	427,832	53.48%	800,004
SUBTOTAL			1,109,727	46.4442%	1,279,649	53.56%	2,389,376
Gulf States	Bahrain	4	15,274	52.5964%	13,766	47.40%	29,040
	Kuwait	3	49,807	62.4672%	29,926	37.53%	79,733
	Oman	2.8	55,180	56.9159%	41,770	43.08%	96,950
	Qatar	1.4	6,792	57.9423%	4,930	42.06%	11,722
	Saudi Arabia	2.5	363,241	51.3784%	343,750	48.62%	706,991
	United Arab Emirates	0.9	27,601	64.5773%	15,140	35.42%	42,741
	Yemen	2.6	285,752	48.0289%	309,207	51.97%	594,959
SUBTOTAL			803,647	51.4454%	758,489	48.55%	1,562,136
East Africa	Comoros	3.1	10,474	45.6205%	12,485	54.38%	22,959
	Djibouti	3.2	10,462	44.9071%	12,835	55.09%	23,297
	Sudan	2.5	532,968	51.7913%	496,101	48.21%	1,029,069
	Somalia	2.5	101,764	41.6912%	142,326	58.31%	244,090
SUBTOAL			655,668	49.6938%	663,747	50.31%	1,319,415
			11,941,622	46.9637%	13,485,741	53.04%	25,427,363

Table 2 Countries ranked according to the % of the population over 65 years of age.

Country	Loc.*	% 65+	# of Males 65*	# of Females 65+	Total 65+
Tunisia	NA	7.2	352,003	403,319	755,322.00
Lebanon	ME	7.2	130,148	158,530	288,678.00
Morocco	NA	6.0	851,190	1,019,377	1,870,567.00
Algeria	NA	5.1	798,576	928,709	1,727,285.00
Jordan	ME	4.6	143,058	146,718	289,776.00
Libya	NA	4.4	136,224	142,079	278,303.00
Egypt	NA	4.3	1,546,774	1,818,778	3,365,552.00
Bahrain	GS	4.0	15,274	13,766	29,040.00
Palestine (WB)	ME	3.7	37,471	52,666	90,137.00
Syria	ME	3.7	372,172	427,832	800,004.00
Mauritania	NA	3.4	44,836	60,597	105,433.00
Djibouti	EA	3.2	10,462	12,835	23,297.00
Comoros	EA	3.1	10,474	12,485	22,959.00
Iraq	ME	3.0	410,395	469,701	880,096.00
Kuwait	GS	3.0	49,807	29,926	79,733.00
Oman	GS	2.8	55,180	41,770	96,950.00
Palestine (Gaza)	ME	2.6	16,483	24,202	40,685.00
Yemen	GS	2.6	285,752	309,207	594,959.00
Saudi Arabia	GS	2.5	363,241	343,750	706,991.00
Sudan	EA	2.5	532,968	496,101	1,029,069.00
Somalia	EA	2.5	101,764	142,326	244,090.00
Qatar	GS	1.4	6,792	4,930	11,722.00
United Arab Emirates	GS	0.9	27,601	15,140	42,741.00
Totals			6,298,645	7,074,744.00	13,373,389.00

*Location: NA = North Africa, EA = East Africa, ME = Middle East, GS – Gulf States.

Table 3 Summary Estimates Of The Number Of Individuals 65 Years Of Age And Older By Arab World Region

	North Africa	Middle East	Gulf States	East Africa	Total
> Population	6,231,895.00	4,259,943.00	855,145.00	2,026,406.00	13,373,389.00
& Population	46.60%	31.85%	6.39%	15.15%	100.00%

institution-building funding from the broader Arab World as a function both of the size of population 65+ [or 60+ since that is the cut line for several states] and GDP/capita..

A3 Quality of Life

Health workers tend to link Quality of Life to Quality of Health. Most other individuals see Quality of Life as a combination of factors and these factors can vary greatly from one society to another and one individual to another. The Quality

of Life Model applied to Cancer Survivors [Ferrell et al, 2002] groups these factors into 9 categories with physical and mental health being only one of these.

The Quality of Life model applied to cancer survivors appears to be well known and addresses a wide range of concepts with health appearing to play a bigger role. Application to specific cultures would lead to specific items being more relevant than others. AbiHabib et al [2011] used an Arabic version of the Camberwell Assessment of Need for the Elderly [CANE] as a measure of quality of life for elders in Southern Lebanon and found that self-care, daytime activities, mobility, and number of falls seemed important proxies for Quality of Life.

The Activity of Daily Living [ADL] seems to be an important measure in reviewed articles and when it was translated into Arabic [Nasser and Doumit, 2009], it appeared to be a valid measure for elderly nursing home residents. This and the Arabic Mini-Mental State Examination [AMMSE] could help caregivers and health providers plan activities for patients. Yount, in a study labeled "Gender, Resources Across the Life Course, and Cognitive Functioning in Egypt" [2008] reported that the MMSE showed that "older women in this sample have significantly poorer overall cognitive functioning than older men."

Richards and Deary (2005) [from Yount, 2008] were able to demonstrate that "cognitive resources in both childhood and adulthood are associated with cognitive functioning in later life." The respondent's schooling and household standard of living at interview were also shown to be significant and positive determinants of later-life cognitive functioning for women and men. These two resources also account for a large share of the residual gender gap in cognitive functioning (~22%; Hypothesis 3a), and schooling accounts for a larger share of this gap (18% vs. 4%). These findings, although not causal, corroborate the idea that cognitive reserve can be augmented across the life course [Yount, 2008].

In an article aimed at developing criteria for nursing homes in Lebanon, Nassir and Doumit, 2011] write "Practical implications – The criteria developed in this study can be turned into key performance standards for elderly homes in Lebanon, other Mediterranean and Arab countries. These criteria would greatly benefit elderly homes if validated and used as guidelines for quality care."

Chaya et al [2008] discuss the benefits from translation of the Geriatric Depression Scale [GDS] into formal Arabic:

- it is available to all Arabic-speaking populations in the region, including the Gulf and most North African countries.
- studies on the mental health of Arab elderly emigrants in all countries can make use of this screening instrument.
- the GDS-15 was proven to be a good instrument for assessing depression in older adults, without dementia, in community settings and primary care patients.
- it is short and easy to administer,

- it is recommended that it be used as a routine screening test to identify depression among older adults in primary care settings, and to use it in large population health surveys

El-Tinay et al [2007] examined 75 elderly [60+ years] inpatients in Khartoum Sudan state hospitals from May to August, 2006 and found that:

> The commonest health problems faced by the elderly Sudanese were found to be endemic and epidemic diseases (e.g. Malaria), as well as chronic illnesses (e.g. Hypertension and Diabetes mellitus) and their complications. Activities of Daily Living revealed that a majority of the respondents were unable to care for themselves within a limited environment. Poly-pharmacy was not a problem amongst Sudanese elderly. Depression, either mild or severe was found in a majority of the respondents. This was despite the strong family bonds and community socialization which is characteristic of our Sudanese society. Sensory impairments were only encountered in a few patients.

These authors suggest that a considerable number of the elderly will need assistance in the functional activities of daily living. Training of family members, caretakers, trainers of caretakers, and trainers of trainers apparently will be needed. Of their small study (75), 48% were totally dependent re dressing themselves, 39% when it came to eating meals, 44% re grooming themselves, 53% re going to the bathroom, and 54% re mobility. [El-Tinay et al, 2007]

El-Tinay et al [2007] further reported that, of the study population, 51% indicated they use prescription drugs, 47% indicated they used medication for chronic health issues, 44% indicated they remembered the times to take drugs, 35% said they take drugs alone, 21% indicated they relied on a caretaker for drug consumption, and 17% indicated they used drugs regularly. These data are useful in determining the need for a caretaker. The fact that 35% + 21% indicated taking drugs alone or with a caretaker totals 66% suggests that there must be a third option for the other 34% or that the question was misinterpreted. Nutritional status and the senses of smell, taste, and hearing should not be overlooked in the elderly. El-Tinay et al [2007] found serious levels of diminished senses.

Boggatz et al [2010] reported that "Older persons from low income groups are more likely to become care dependent but are less able to pay for required care. Currently, untrained volunteer groups of religious organizations try to support these older people in the poorer strata of Egyptian society. Training in the basics of care might help to make their work more effective." [Boggatz et al – 2010]

What is important from these studies is that well-studied tools with relevance for a broad range of societies are being applied to a variety of Arab populations with meaningful findings suggesting that pulling together the researchers and the research in a few key locations across the Arab World could lead to the rapid growth of a social psychological body of literature that could form the basis for the training of large numbers of elder care workers without having to import researchers from abroad and having them have to go through the pain of acculturation.

A4 Health and Health Indicators

As indicated above, health is just one of the factors determining Quality of Life but it is an important factor and is often divided into physical health and mental health although the literature increasingly shows that the two are intertwined [Moselhy, 2011]. Let's look first at Physical Health issues related to elder care.

Physical Health

According to Al-Ali et al [2011], 7% of all CVD deaths in the world [WHO, 2008] were in the Eastern Mediterranean. About half of CVD deaths in Syria occur before 65 compared with about 1/5th in the Developed World. [Al-Ali et al, 2011]. Roberts et al [2012] report that "….the years of life lost from noncommunicable diseases in Libya are three times higher than from communicable diseases."

While El-Sharkawy [2004], reporting from the Arab Centre for Genomic Studies in the Emirates, makes the statement "in the UAE and elsewhere satisfactory epidemiological studies are lacking on the prevalence of diabetes", he also indicates that "The UAE has the second highest world prevalence of type 2 diabetes mellitus and elevated metabolic syndrome prevalence. Sudden urbanisation and affluence have been cited as contributors for these endemics."

Tabutin & Schoumaker, in "The Demography Of The Arab World And The Middle East From The 1950s To The 2000s" [2005], make the point that Yemen was still quite rural in 2000 and the Gulf States were almost completely urbanized by then.

Al-Ozaibi et al [No Date] write "Traditional and social eating habits prevented patients from adhering to their diet control programmes. Engaging in physical activity was hindered by the affordability and overuse of cars and by the availability of domestic workers. Elderly patients were unfamiliar with the 'exercise concept' and couldn't adhere to it. Due to perceived societal norms some families prohibited their wives and daughters from walking in public places; other women feared the presence of hidden cameras in health clubs so were often reluctant to join these clubs. Long and loose traditional clothes for men and women were perceived to hinder efficient physical activity."

Given the lifestyle, the high rates of CVD found In some areas, the growing indication that dementia can result from such lifestyle, and the evidence of significant diabetes in the Arab Gulf, and the personal experience of the lead author in communicating with students from the Arab Gulf, it is reasonable to assume that as the population in the Arab World ages, elder disability will become an increasingly important issue [Al-Ozaibi et al (No Date) "How culture and modernity limit successful management of the metabolic syndrome in the United Arab Emirates (UAE): a qualitative study with health care professionals and patients"].

Yount [2008] reported that the M-MMSE identified the importance of schooling for reducing the gender gap in overall later-life cognitive functioning. The inclusion

of schooling in adjusted models significantly reduces the gender gap in the M-MMSE by 18% (e.g., from –1.72 to –1.37); the inclusion of adult household standard of living in adjusted models reduces this gender gap (nonsignificantly) by 4% (e.g., from –1.45 to –1.37)."

To be remembered as well, is that as people age, falls and other trauma [injuries in moving vehicles] become more important. Given an estimated percentage of the Palestinian West Bank aged 65+ at 3.4%, Younis et al [2011] have estimated head injuries of this population sector represent 4.8% of study hospitals populations." In a study by Adam et al [2011] "There were 121 patients, 70 males and 51 females of whom 65% (79) were 65 years. Mean (range) age was 69 years (60–100) and UAE nationals made up 42.1% (51) of the study population (Table 1). Head, face, chest and upper limbs were frequent in RTC. Fifty-eight percent of lower limb injuries sustained by falls on the same level were fractured neck of femur. Spine, upper limbs and lower limb injuries were most frequent in fall from height. Home was the most common location of trauma."

Mental Health

A recent study [Chaaya et al, 2010] of a sample of 328 men aged 65+ in Lebanon found one third were suffering from depression [the 15-item Geriatric Depression Scale]. Those still working seemed to cope better than those who were not. Another study is needed to assess whether stopping working led to depression or depression led to giving up of work. El-Tinay et al also looked at depression and found that depression must be seen as a concern and training strategies must be developed. [El-Tinay et al, 2007]. 60% of the study group were found to have moderate depression and another 20% severe depression.

Al-Ansari et al [2010] used the Mini International Neuropsychiatry Interview (MINI) in a study "to identify patients who had or have Generalized Anxiety Disorder [GAD] or Major Depressive Episode (MDE). They found the MINI to be quite reliable in identifying GAD and MDE in Bahrain and suggested possible primary care physician preparation in its administration.

Moselhy et al [2011] used the Hospital Anxiety and Depressions Scale (HADS) 12 to measure the mental health of study participants. This was chosen because the instrument has already been translated into Arabic and its validity established (El-Rufaie & Absood, 1995). Participants were asked "How many days in the last seven days did you do any sports or other physical activities?' Other health-risk factors including measurement of body mass index (BMI) and blood pressure were also included in the survey. The authors used the Hospital Anxiety and Depressions Scale (HADS) 12 to measure the mental health of the participants. This was chosen because the instrument has already been translated into Arabic and its validity established (El-Rufaie & Absood, 1995) in Moselhy et al [2011].

Moselhy et al [2011] reported that "Our population-based study from a randomly representative sample of the UAE population, suggest that life style, depression and anxiety may be an important public health construct. "people with anxiety were

significantly either smoker or ex-smoker, which is consistent with the results of recent research which showed similar results…….. Although, epidemiologic data suggest an association between obesity and both depression and anxiety, findings vary across studies (Simon et al. 2006)". [Moselhy et al, 2011].

Habib [2009a] utilized a mailed questionnaire to physicians "designed to gather the following information: physicians' personal characteristics, working experience, specialty and training in geriatric psychiatry. Common risk factors of elderly depression and the scales used to diagnose it were included in the questionnaire; as well, it included the method of screening and managing elderly depression:" The results showed "that the number of cases of depression identified by 132 (MDs) in a year ranged between 0 and 6+ [13.6% of the 132 physicians identified at least 6. However, the table does not indicate the number of patients seen during the year. Barriers to diagnosis were: elderly patients not accepting the questions; limited consultation time, need for a specific scale; need for more training; and need for specific guidelines. [Habib 2009a].

With the introduction of a program to promote cooperation between primary providers and psychiatrists, there was an improvement in elder social activities and a reduction in disabilities. "The WHO recommendation should be adopted to redirect the planning of mental health services towards community-based rather than hospital-based services." [Habib 2009a].Habib suggested training community health nurses and social workers to do the screening.

Al-Haddad [1999] used "The Geriatric depression Scale (GDS 15) and reported that it was a valid and reliable tool for detection of depression with 23,1% of the study population depressed with females more depressed than males. Al-Haddad reported further that "None of the diagnosed depressed patients were previously identified by the primary care physicians."

"Our [Al-Haddad et al] study found that psychiatric morbidity in primary health care occurred more commonly in females aged 50–59 years, the unemployed, those of a low educational level and divorcees or widows. The high prevalence of psychiatric morbidity in general practice necessitates the use of an easy tool for screening and identifying cases of hidden psychiatric morbidity, especially in the busy primary health care setting. The GHQ or HAD scale are such tools and their use is strongly recommended." [Al-Haddad et al, 1999].

Ghubash et al found [2004] that the "GMS-AGECAT package proved to be a useful tool for psychiatric assessment among the elderly in this [UAE] Arabian culture. The prevalence rates of mental disorders among the elderly UAE population were, more or less, within the same range reported by other comparable worldwide studies.

Chapman, P., Figley, C. R., Ashkanani, H. R. and Naser, F. A. (2009) used the RAHA Scale in "Measuring Mental Health Following Traumatization: Psychometric Analysis of the Kuwait Raha Scale Using a Random National Household Data Set" published in the American Journal of Orthopsychiatry. Volume 79, Issue 2, pages 221–227, April 2009. The Arabic word "raha" means relaxation or the equivalent and the factors measured [religiosity, happiness, stability, confidence, and likability are defined by a number of individual questions. Table 3, which looks at diagnostic

results for three of the Emirates, found much higher levels of depression in Dubai than the other two Emirates. The samples are very small so whether this is actually a real difference is a question but suggests that depression has a clinical diagnostic presence in the area [Ghubash et al, 2004].

According to Chapman et al [2009], The Raha [rest or relaxation in English] conceptualization of well-being is already stimulating interdisciplinary research among psychologists, social workers, and human development specialists, as illustrated by this team of investigators. As a measurement of well-being, this measure appears to be more consistent with those views held by the citizens of Kuwait and other traditional Muslim countries of the Middle East.

A5 Client Socio-cultural Beliefs & Attitudes

Why should Socio-cultural Beliefs & Attitudes related to cultural gerontology in the Arab World be considered an important focus? In one Kuwaiti study [Al-Kandari [2011], "The findings indicated a direct relationship between social support and general health status among older adults. Social support and social networking have a greater effect on the life of the elderly than on other age categories in the human population, given the decline in the general health of older adults due to psychological functions".

There is considerable range in how single elderly women are supported from a more western approach in Lebanon to a more traditional approach in the Arab Gulf. [Mehio-Sibai et al, 2007]. According to Boggatz et al, [2009a], elder care dependency is a problem for lower and middle class elderly due to economic restrictions and life style changes. Thus, there is no "one solution fits all" in the Arab World.

The number of Kuwaiti women in the workforce rose to 42% in 2006 which is considered to be the highest participation rate in the region [Jaleeli, 2008]. This has necessitated that others in the household take over some of the in-house responsibilities. Will these be family members or immigrant workers? Further, according to al-Thakeb, [1985], modernity is directing the Arab family pattern toward living in a nuclear family rather than as a part of one's extended family. [Al-Kandari, 2011].

Sinunu et al [2009], in a paper examining factors determining patterns of care of elderly relatives in Cairo Egypt, found that the extent of reliability of the social network [extended family], self-image/shame, the extent of traditionalism, financial resources, and physical and mental challenges helped determine the nature of responses to the need for care giving. Both Sinunu and her colleagues and Boggatz and his co-authors used qualitative methods to explore how the role of the caregiver is changing among urban Egyptians and, in the process, redefining the obligation of filial piety.

Income and social networks have an impact on the ability to seek help as well as the type of help sought. [Glicksman, 2009] Additionally, the changes in family life and the role of women are redefining the meaning of family caregiving and the ability of the family to care for its older members. As a result, formal and informal supports for caregiving now exist at both the community and facility levels in Egypt.

[Glicksman, 2009] In Cairo, "women also have begun to marry at later ages [Rashad et al, 2005] to exert more say in the selection of their spouse." [Sinunu et al, 2009].

Because of the unique role the Arab family has played in supporting its individual members and because of the extended nature of the family in the past, there usually seemed to be someone who could step in to play a caretaker role when needed [even if not trained for the role]. What we have noticed from this review was the apparent rapidly changing shape of the Arab family and a move to more of a nuclear family pattern. In the past, Arab government did little to play a caretaker role for families and their members as a result and need to become aware of the current inadequacy of some Arab families to fulfill their traditional role.

In a study by Boggatz et al [2009c], findings were that socio-demographic changes may deprive older Egyptians from receiving care by family members and raise the question of how they react if they become dependent on help. The study design included the following:

- Objective: The objective of this study was to determine factors related to the acceptance of home care and nursing homes among older Egyptians.
- Participants: The sample was composed of 344 older persons receiving home care or staying in a nursing home and 267 non-care recipients.
- Setting: The study was conducted in Greater Cairo.
- Results: Lesser feelings of shame while receiving care from non-family members were related to an increased acceptance of both kinds of care;
- Home care is a new phenomenon in Cairo and in contrast to nursing homes it was unknown to most study participants.

Various authors have documented other rapid socio-cultural changes in several Arab states: Mehio-Sibai et al [2009] re Lebanon – discussed how the availability of surviving children and income influence senior living patterns; The same authors also reported on the move to nuclear families in Kuwait resulting in married couple living only with their unmarried children increasing from 50% in 1994 to 70% in 1999. [from Shah et al, 2000].

Boggatz et al [1995] discussed the first home care services agency in Cairo and threw out the idea of employment of untrained helpers as an option. According to Boggatz et al [2010], those who can least afford care are those who are most likely to need it. Boggatz suggests training of religious organization volunteers as a first step in enhancing local resources for the care of the elderly.

Along with a focus on the changing structure of the Arab family is a need to look at cultural views of health and disease. "*Good health was equated with the absence of visible disease*, *with participants demonstrating limited understanding of silent or insidious disease*. *They attended doctors for treatment of visible disease rather than seeking preventive health care for diseases such as hypertension*, *diabetes*, *and hyperlipidemia*. *Building on the results from this study could help inform both health service planners and providers to improve the appropriateness*, *relevancy, and effectiveness of aged care services for these individuals."* [Ypinazar and Margolis, 2006].

"A previous study by Margolis, Carter, and Reed (2002) demonstrated a persistent extremely low usage of psychotropic medications in the UAE, suggesting that socio-cultural forces in this community might play a powerful role in the decision

to accept Western medical treatment. However, a separate study of emergency room attendances in the same community demonstrated a rising proportion of older people attending for health care over the past decade and presenting earlier in the course of their illness or with less serious illness (Margolis & Reed, 2002). This appeared to suggest a growing acceptance for consulting Western medical care."

Elderly Emiratis indicated that religion is an integral part of their lives as exemplified in the Quran and the Hadith. (the Hadith is a list of the prophet Mohammed life sayings) There seems to be some conflict between beliefs and application in the statement: "Prevention is good. I cannot prevent disease [God wills it]." [Ypinazar and Margolis, 2006]. The South Eastern Region Migrant Resource Centre of Australia [May, 2010] issued a printed guide for working with Arab immigrants to the US that may have relevance in training expatriates in the Gulf considering the high percentage of imported health workers. The following list comes from that guide:

Health Beliefs and Practices

- Arabic people may use western medicine concurrently with herbal remedies or traditional healing practices.
- Elderly people may ask professional health workers for advice on a variety of heath matters even unrelated to their field of expertise.
- Some uneducated Arabic people might accept the advice of a friend about the type of medicine they need to take.
- Doctors and qualified medical people are well accepted and respected by Arabic speaking community members.
- Medical diagnosis should be given to the closest family member, preferably older son or daughter.
- Elderly people may face difficulty reading health information and promotional materials in Arabic as many of them might be illiterate in their first language.
- People prefer to communicate through a personal contact who can speak the same dialect."

A6 Client Socio-economic Support

Macroeconomic realities have also begun to have an impact. With Arab workers being replaced by individuals outside of the Arab world, with France challenging the rules for Arab entry into Europe, and, as a result, with an expected drop in the old age support ratio, Arab countries need to review policies regarding interstate [intraregional] hiring of Arabs from fellow Arab League countries. This might affect repatriation of earnings in several ways and could lead to a locally-shrinking workforce. A possible intermediate solution might be to train Arab nationals as heads of a team of caretakers of the elderly in a way that the team head's salary would be adequate to interest possible Arab employees. [ESCWA, 2007].

"In the wake of the first oil price adjustment of 1973, the Gulf Cooperation Council (GCC) countries faced a multitude of challenges in response to the sudden and substantial inflows of oil revenue. The most pressing economic challenge cen-

tered on building a modern infrastructure, a labor-intensive process by nature. In the years that followed, similar impressive quantitative growth in other sectors of the economy took place. Due to severe national manpower shortages, qualitatively and quantitatively, foreign labor had to be imported in large numbers. In the 1970's, imported Arab workers outnumbered Asians by a ratio of 2 to 1. Arab expatriates took jobs in which they had a comparative advantage such as teachers, judges, journalists, university professors, administrators and construction workers. Asians occupied jobs that required both high technical skills and fluency in English and/or low skill jobs in the service and household sectors. Foreign labor, which quickly outnumbered the national labor force (LF), complemented nationals in the work place." [Girgis, 2002]

"From 1965–2000, the overall level of education in both the indigenous population and the national LF increased appreciably. However, instead of fostering economic growth through productivity improvements, as is usually the case in other countries, education efforts were dissipated due to two major factors. First, the choice of major studies was distorted by government hiring and promotion policies and, consequently, deviated sharply from the skill mix and basic knowledge required by the private sector. Second, hiring nationals in the public sector as a means of distributing oil dividends led to overstaffing, underemployment and underutilization of this important resource. It also discouraged nationals from working in the private sector and diminished returns to education. In time, free labor market forces were exacerbated with the appearance of dualities where, typically and for the same skills, nationals received higher pay than foreign workers and public sector wages stayed generally higher than in the private sector." [Girgis, 2002].

Since the mid-1980s, several major issues have created an unprecedented situation; a few hundred thousand GCC nationals became unemployed while millions of foreign workers were meaningfully employed in all sectors of the economy. First, demographically, larger numbers were entering the labor market each year. Second, oil price instability continued, causing frequent and in some countries chronic budget deficits, which rendered unsustainable the past open policy of hiring practically all nationals in the government sector. In fact, in some countries, the government wage bill alone exceeded oil revenue when oil prices fell. Thus, government demand for labor began to dry up. Third, the private sector could not act as a 'swing' employer by picking up the slack because a) nationals were reluctant to join it, and b) employers were reluctant to hire them on account of their higher wages and inadequate skills vis-à-vis their foreign counterparts. As a result, the supply of national LF rose while demand fell and open unemployment surfaced. This phenomenon is currently heavily influencing government policies in the GCC, but it largely remains unresolved. [Girgis, 2002].

A7 Service Demand

This section is divided into two pieces, [A71] a Sustainability Conceptual Framework and [A72] a Schema for Integrating Services for the Ageing.

A71 Sustainability Conceptual Framework

Subhi Mehdi, editor of Health and Family Planning Indicators: Measuring Sustainability, Volume II, Office of Sustainable Development, Bureau for Africa, U.S. Agency for International Development, described the Sustainability Conceptual Framework [No Date] in Fig. 2 of the document. He writes:

> "There are two types of sustainability indicators for health and family planning programs. The first type of indicator examines outcomes retrospectively long after program interventions have been completed. These indicators examine whether programs and health status have been sustained, and are often used in major impact evaluations. The second type of indicator examines aspects of ongoing programs and activities that can be used to predict future sustainability. These indicators are used for monitoring and process evaluation purposes. This document is primarily focused on the second type of indicator. Although some of the indicators in this document can be applied retrospectively, most assume the purpose is to examine aspects of current programs and activities that can be used to predict future sustainability."

In planning for service demand, it is important to consider the issues of sustainability over time since resources are limited and services carry a cost. Thus, given the rapidly ageing populations of the Arab World, demand will increase. A diagram [Fig. 2] in the online publication by Anne Mills and Lucy Gilson [1996], as seen by the list below, addresses some of the issues related to increasing demand:

1. What influences health?
2. What is health? What is its value?
3. Demand for Health Care
4. Supply of Health Care
5. Micro-Economic Evaluations
6. Market Equilibrium
7. Whole System Evaluation Level
8. Planning, Budgeting, and Monitoring Mechanisms

The diagram does a nice job of linking factors influencing health and the extent to which health is valued in the culture to service demand. It looks at patterns of care-seeking behavior and access issues. Thus, these are factors that need to be considered when planning for demand response. The other components of the model are important in strategizing on which directions to move and how fast.

1. What influences health

Al-Ghanim's 2010 study showed [not surprisingly] that elderly respondents had lower level of education and had less knowledge about where to get relevant health services than younger respondents. Previous research indicates that patients of low education have poorer health and accordingly they use health services more until their health problems are resolved. While this finding is consistent with some studies (Berki and Kobashigawa, 1978; Fernandez-Olano et al., 2006), it contradicts others (Ullman et al., 1975) which found that education had no effect on the use of health

services. Previous studies indicated that those who had knowledge about alternative health services may use them when other services are unavailable or inaccessible (Bentley, 2003; Snider, 1980; Mekonnen and Mekonnen, 2003). This suggests that enhancing the knowledge of elderly patients about the availability and the accessibility of health services may have an impact on the appropriateness of use of health services and facilities. [al-Ghanim, 2010]

Roberts et al [2012] looked at post-conflict societies [of considerable relevance considering the Arab Spring] and found several examples 1) years of life lost from noncommunicable diseases in Libya are three times higher than from communicable diseases, 2) very high levels of mental ill-health in conflict countries, 3) low levels of psychiatric services, 4) hypertension is largely untreated, 4) private sector provision of noncommunicable disease care is the pattern, 5) the poor being excluded from services due to high costs.

On the other hand, improved primary health care in such countries has led to higher survival rates among the young with the long term result an increasing pool of youth who will move into the increasing pool of the aging.

2. Values placed on health

This section is very brief because of the paucity of English language literature on Arab health values. One of the issues is at what level are those values located: the Arab World as a whole, the nation-state, the institutional provider, or the individual and family. There is a lot of patient education literature on providing appropriate services to people of Arab origin and Muslims in the US but that literature was not reviewed [the first author of the monograph is working currently on a paper that will address health education and promotion for the Arab elderly]. One way of looking at the value issue is to compare the way in which different countries allocate resources to health and health care services. Kennedy et al [2008] wrote:

"Figure 1 shows the scores for the Human Development Index [HDI] sub-components. Life expectancy is broadly comparable across the countries, except in Yemen. The differences are greater for education and gross domestic product (GDP). Public sector commitments to health mostly fall in the range of 2.5% to 3.0% of GDP, with only Qatar and Yemen falling below this level and Jordan considerably exceeding it with a commitment of 4.2% (Table 1). There is greater variation in commitment to education, which ranges from 1.6% to 8.2% of GDP. There has been a considerable increase in public sector commitment to education since 1991 in 3 countries: Kuwait (4.8% to 8.2% of GDP), Oman (3.4% to 4.6% of GDP) and Tunisia (6.0% to 8.1% of GDP). Data are lacking on education commitment for half the countries and on commitment to technology and knowledge creation for even more. In all fields of research, Saudi Arabia and Tunisia produced the most academic research papers of the 10 countries in 2004. If only health-related research publications are considered, then Kuwait and Lebanon join Saudi Arabia and Tunisia as the major producers (Table 1).

3. Care seeking behavior

Over three quarters of the elderly reported using health services in the past twelve months while that figure for the younger clients was around 50%. Not surprising, the elderly were almost two and half times more likely to make a health care facility visit in the past year. [Al-Ghanim, 2010].

Table 4 Differences In The The Mean Visits To Saudi Health Care Facilities Between Elderly And Younger Patients

	Mean Visits	
	Elderly	Younger
PHC	0.59	0.26
OPD	0.11	0.13
ED	1.58	0.51
OTC	0.92	1.76
Inpatient	0.08	0.02

Table 4 above from al-Ghanim [differences in the the mean visits to Saudi health care facilities between elderly and younger patients] generated the following data: Al-Ghanim, 2010].

To put these data in perspective, the Saudi Ministry of Health's annual reports show that the utilization of health care facilities outstripped the increase in the number of these facilities. For example, between 2000 and 2007, the number of visits to health care facilities increased approximately by 18% (from 94.6 to 111.6 million visits), whereas the increase in the number of health care facilities lagged far behind demand for health services. [al-Ghanim, 2010]

The results that emerged from this study indicated that "the elderly patients made a higher mean number of visits to all formal health care facilities employed in this study, including primary health care centers, outpatient and specialist clinics, emergency departments and inpatient services than younger patients". Thus, the results reported here suggest that elderly patients are responsible for much of the workload performed in these facilities. These findings are in line with other studies conducted in Saudi Arabia (Al-Shammari, 1996; Mufti, 1999) as well as studies conducted in other countries (for example, Tannenbaum et al., 2005; Victor, 2000; Beregi, 2005). [al-Ghanim, 2010]

Comparing the findings reported here with findings reported from different health care systems is difficult and may lead to discrepant conclusions. Many countries have distinctly different health care systems and/or systems for recording events. For example, some are based on a 'Gatekeeping' primary care and others are on an easy access to specialists as long as the patient can pay (Fry et al., 1995).

This is consistent with previous research (Howe et al., 2002; Kersnik et al., 2001; Neal et al., 2001; Scaife et al., 2000) which indicated that older patients are more likely to use health services than younger ones. Other studies found that age did not affect health services utilization (Feignson et al., 1997; Berki et al., 1984). [al-Ghanim, 2010]

It might be expected that elderly people who reported "visiting a doctor regularly" would decrease the use of health services, but the data in al-Ghanim's study did not support this expectation. In fact, despite elderly respondents having had a higher percentage of continuity with health care, they made a significantly higher mean number of visits to health care facilities than younger respondents. This finding contradicts previous research (Gill, 2000; Christakis et al., 1999) which indicated that having continuity with a health care provider is significantly associated with decreased health services utilization. However, it has been reported that some elderly persons contact their physicians for routine check-ups when there are no symptoms and they use medical services in excess for a list of common diseases that are "not serious" (Hibbard and Pope, 1986). [al-Ghanim, 2010]. Experience with the elderly in a mobile clinic program on the Palestinian West Bank in the late 1960's suggested that the elderly were more likely to simply show up for visits when there were no apparent symptoms [WBW personal experience].

Approximately three quarters (77.6%) of elderly Saudi patients and half (48.9%) of younger patients used health services during the past 12 months. The results indicate that elderly people had significantly higher mean scores of visits to primary health care centers, emergency departments and were more likely to be hospitalized than younger patients. On the contrary younger patients were more likely to refer themselves to private pharmacy for self-treatment [al-Ghanim, 2010]. Getting the right balance of service intensity is important. With the changing structure of families [extended to nuclear] in a number of Arab countries, it will be important to build in flexibility so that resources can be reallocated as needs change.

4. Barriers to Access

Al-Ahmadi & Roland [2005] in an article "Quality of primary health care in Saudi Arabia: a comprehensive review." identified the following problems:

1) Only 40–68% of diabetics were referred to eye clinics.
2) Short consultations were the norm
3) Problems with low patient education [a training issue], lack of compliance with clinical directives, and a demand for medications were also common.

Al-Ghanim [2010], looking at the use of health care facilities in Saudi Arabia, found that the elderly were less likely to be fully educated, to have more limited income, to have less health insurance coverage, and to be less likely to know where to find access to health care [although there is free universal health care in the Kingdom]. On the other hand, those who sought care were more likely to seek regular care. The elderly at health care facilities were more than twice as likely to have a chronic condition, 3 times as likely to have a functional limitation, almost twice as likely to have a severe illness, almost 50% more likely to have poor health status, and poor psychological status, and 5 times as likely to need help with personal care. On the other hand, it has been shown that risk factor identification was not regularly practiced by the Emergency Department physicians in the management of geriatric

trauma (Kalula et al., 2006). [Adam et al, 2008]. Further evidence that there is a need to reorient primary care providers to the need of the elderly is that, in Bahrain, "depression among the elderly primary care population was examined and found to be high. A higher prevalence of depressive symptoms (41%) among the elderly PHC attendees was reported by Habib compared to Al Haddad (23%) 10,11. However, General Anxiety Disorder [GAD] was never investigated as a separate disorder in the primary care setting. [Al-Ansari 2010]"

The Asian Aging Business Center's Active Asian Consortium for Active Participants [ACAP's] Schema seems potentially useful for integrating services for the ageing. The idea is to link existing resources in a framework such as is in the diagram through the creation of an organizational network. In this way, services that may reach a limited population can be expanded and referrals and feedback can be enhanced. The rest of this section has been organized according to the sectors in the Diagram but the ordering has been rearranged slightly.

a. Psychological Services
b. Physical Services
c. Spiritual Services
d. Social Services
e. Civic Services and Economic Services
f. Environmental Services

a. Psychological Services

The information on psychological services in the Arab World is rather limited but due to apparently high levels of depression among the elderly, an enhanced focus is needed. Chronister and Chan [2006] have published an article "A stress process model of caregiving for individuals with traumatic brain injury" that may be of use to a broader array of elder care issues.

Roberts, Patel & McKee [2012] have carried out surveys which reveal very high levels of mental ill-health in countries emerging from conflicts.[3] …Somaliland has no psychiatric professionals or related medications available in primary or secondary health services, despite the conflict ending almost two decades ago [and recently started anew].[9] Services for other noncommunicable diseases are also extremely limited – hypertension is largely untreated in Iraq despite it having some of the highest levels in the region.[10] In many post-conflict countries, noncommunicable disease care is mostly provided by the private sector, with high costs excluding poor people or placing them at risk of catastrophic expenditure. In countries where poverty levels are often already extremely high (and often magnified by the conflict), such expenditures create a vicious cycle whereby poverty and disease continually reinforce one another.[6]

In Bahrain [a recent focus of civil conflict], few attempts have been made to address this subject. Depression among the elderly primary care population was examined and found to be high. A higher prevalence of depressive symptoms (41%)

among the elderly PHC attendees was reported by Habib compared to Al Haddad (23%) 10,11. However, GAD was never investigated as a separate disorder in the primary care setting. [Al-Ansari 2010]

b. Physical Services

The challenges of addressing noncommunicable diseases in post-conflict countries are many and complex, particularly in countries with high levels of infectious disease, i.e. facing a double burden of disease. However, the post-conflict period can provide a window of opportunity to undertake fundamental reforms to better address the population's health needs. Research has identified that elderly people have unique characteristics which affect their demand for health services. In order to provide elderly people with relevant health services, recent information about the extent of the utilization of health services by this age-group of people is needed. Additionally, it is necessary that their characteristics be explored. [Al-Ghanim, 2010]

Al-Ghanim, in an article "Profiling Elderly and Younger Patients Attending Health Care Facilities: Implications for Health Care Planning" [2010], reported that data on the elderly from Saudi Arabia have been scarce making comparison with other countries difficult. However, previous research in Saudi Arabia, although not specifically conducted to examine the utilization of health services by the elderly people, indicated that elderly people were the most frequent users of health facilities such as primary health care centers (Al-Ghanim, 2005), secondary and tertiary health care facilities (Siddiqui and Ogbeide, 2002; Irshaid, et al., 2004) and acute health services (Al-Shammari, 1996). [Al-Ghanim, 2010].

The results may have been skewed somewhat because some of the studies on the elderly in Saudi Arabia were limited to specific departments such as accident and emergency (A&E) departments (Al-Shammari, 1991; Siddiqui and Ogbeide, 2002) and inpatient services (Al-Shammari, 1996) or specific diseases associated with elderly patients such as diabetes (Khan and Khan, 2000), obesity (Abolfotouh et al., 2001) and hypertension (Al-Turkey, 2000) [Al-Ghanim, 2010]. In these Saudi studies, approximately three quarters (77.6%) of elderly patients and half (48.9%) of younger patients used health services during the past 12 months. The results indicate that elderly people had significantly higher mean scores of visits to primary health care centers, emergency departments and were more likely to be hospitalized than younger patients. Younger patients were more likely to refer themselves to private pharmacy for self-treatment. [Al-Ghanim, 2010]

"The elderly population in the UAE is growing" (UAE Ministry of Health, 2004). This is attributed to improvements in lifestyle and health care (Margolis et al., 2003). Elderly trauma patients constitute a large part of all trauma patients and consume tremendous amounts of health care resources (Stevens et al., 2006); having a cost of almost triple that of young patients (Kauder et al., 2004). Adam et al [2008] state that "The management cost of elderly trauma patients is high. Most of the cost is due to length of hospital stay and ICU care which is related to the presence of co-morbidity and non-fatal fractures (McMahon et al., 1996; Stevens et al., 2006). The mean hospital

stay of 12 days in our elderly patients is much higher than our overall mean hospital stay of (6 days) for all trauma patients in our trauma registry" [Adam et al, 2008].

According to Adam et al [2008], several authors reported, that, in the UAE "Falls remain the most common type of injury in old age" (Nagurney et al., 1998; Sterling et al., 2001; Zautcke et al., 2002). Seventy percent of deaths from falls occur in the elderly (Kauder et al., 2004). The second common external cause [among the aged] of injury is Road Traffic Collisions (Nagurney et al., 1998) [Adam et al, 2008]. In an article by Younis et al [2010], looking at trauma hospitals on the Palestinian West Bank, cases resulting from conflict injuries [Palestinian/Israeli], the author reached the following conclusions: "The major causes of TBI were assault (33%), falls (32.1%), road traffic crashes (29.8%) and impacts from heavy objects (3.2%). Gunshot wounds are a major cause of head injury in Palestine. ……..The study shows that assault with firearms is the most frequent cause of TBI in this population and that patients with head injuries due to assault have poorer outcomes at discharge than those injured in other ways."

UAE pedestrian-vehicle collisions (PVC) have high case fatality ratio in old age (McMahon et al., 1996; Ferrera et al., 2000; Akkose Aydin et al., 2006). The low physiological reserve and the presence of co-morbidities in older patients modify their trauma response as compared to young patients (McMahon et al., 1996; Ferrera et al., 1999; Sterling et al., 2001)." Adam's study aimed to analyze the external causes and outcomes of hospitalized trauma elderly patients in Al-Ain Hospital, so as to give recommendations on ways to prevent injuries and improve their care. The two most common were falls on the same level [55%] followed by road traffic collisions [32%]. Falls amounted for 84% of injuries in females and 34% among males. (UAE Ministry of Health, 2004). [Adam et al, 2008].

In the Adam et al study [2008], "There were 121 patients, 70 males and 51 females of whom 65% (79) were 65 years of age or older. Mean (range) age was 69 years (60–100) and UAE nationals made up 42.1% (51) of the study population (Table 1). Head, face, chest and upper limbs were frequent in RTC. Fifty-eight percent of lower limb injuries sustained by falls on the same level were fractured neck of femur, spine, upper limbs and lower limb injuries were most frequent in falls from heights. Home was the most common location of trauma."

The MOH goal is to provide universal free medical care for Saudi citizens and also for the millions of international pilgrims undertaking the *hajj* to the holy city of Mecca. According to Mobaraki and Söderfeldt [2010], the MOH is supported directly by the government and has good infrastructures and administrative structures. About 60% of health services are provided by the MOH and 18% by other government hospitals such as universities and military hospitals which are open to the public. In the last decade more private hospitals have been established, financed by medical companies and by self-payment. These private hospitals cover the remaining 22% of health services which are monitored by the MOH [*7*]. Due to the rapid increase in the population, the government has planned to adopt a health insurance policy [*11*] to reduce its financial burden and to improve health standards [*12*]. [not primarily as a result of Palestinian/Palestinian conflict].

c. Spiritual Services

This is an area that awaits development. Given the predominance of Islam in the Arab World, and considering the number of sects of Islam, plus numerous Christian sects, relatively small Jewish populations, and even a few others, efforts must be made to develop programs which address the spiritual service needs of the elderly of the Arab World.

d. Social Services

Shah et al [2011] carried out a cross-sectional survey looking at the nature of caregivers in Kuwait in assisting the elderly. Findings were:

1) among those 70+, 27% of men and 44% of women needed help in their activities of daily living [ADL]
2) about 28% of men and 58% of women received assistance most of the time, from domestic workers
3) the elderly relied on domestic workers for help in managing their money
4) women needing help in household activities relied heavily on domestic workers
5) wives were major care-givers for men, even those over 70.
6) men played almost no role in caring for their wives. Daughters and caregivers played important roles with caregivers more frequent as the woman aged. Married daughters tended to live apart from their parents.
7) bed-ridden older women tended to live with married children but had some ADL assistance by caretakers.
8) higher household incomes indicated more reliance on domestic workers
9) working daughters tended to rely more on domestic workers to care for their parents

Tohme et al [2011], looking at 2004 data of the 'Pan Arab Project for Family' found, in Lebanon, that 17.3% of women and 6.2% of men 65+ lived alone. Those reporting being financially better-off older adults and those who reported being satisfied with their income were more likely to live alone. ¾ of older adults received their income from their children. Remittances from abroad were important for the aging in Lebanon. [Tohme et al, 2011] "Population projections indicate that people aged 65 or more years will constitute 10.2 per cent of the population by the year 2025, a result of smaller family sizes and longer lives among the ageing. The study did not compare urban/rural differences, differences among their various sects, nor living distances between elders and their children.

"In Kuwait (Shah et al. 2002), only 0.3 per cent of older men and 1.9 per cent of older women lived alone in 2000, whereas much higher percentages of older men (3.1%) and women (12.3%) lived alone in Egypt in the same year (Yount and Khadr 2008). In Lebanon, a national Population and Housing Survey (PHS) conducted in 1995 by the Ministry of Social Affairs in collaboration with the United Nations Population Fund (UNFPA) revealed that older women were three times more likely to be living alone than men (15.2% and 4.9%, respectively) (Sibai et al. 2004)." [Tohme et al, 2011]

e. Civic Services & Economic Services

A number of Arab countries have been involved in internal and external conflict in the past decades which will have had an impact on the level of civic services available to those who need them. [Roberts, Patel & McKee, 2012]. Surveys reveal very high levels of mental ill-health in countries emerging from conflicts.

In the Arab World and elsewhere, public transportation, access to markets, access to religious services, recreational facilities, and the like are often facilitated by religious organizations, Boy Scouts *[kashaaf*], and similar organizations. Kandil [2004] reported that, "in the Arab world, systematic knowledge of civic service in this sense does not yet exist. There have been no comprehensive studies, which limits our ability to summarize overall patterns and draw conclusions about the forms and nature of service. Generally speaking, there is no clear distinction between volunteering and civic service. Civic service has not been recognized as an official term [*khidmah sha'abiyah*?] to describe this type of volunteerism, even if programs qualify as civic service according to the definition above."

In Lebanon, service programs vary according to Lebanese religious subdivisions. Most of these programs focus on education, health care, and youth development. The Islamic Social Welfare Institution and the Dr. Mohammed Khaled Institution in Lebanon support service programs involving children and youth in educational and awareness programs. These organizations have volunteer programs for the elderly as well. [Kandil, 2004]. The "Quranic injunction to almsgiving has become a foundation of the Islamic organized charity, and organizations are functioning solely based on zakaat contributions including such large institutions as International Islamic Relief (Benthall, 1999). Through such charity organizations, it has been possible to fund a large array of voluntary associations and social service organizations, which provide relief and welfare services and are largely based on work performed by short and long-term volunteers (Benthall, 1999).

f. Environmental Services

Environmental services would involve redesigning transportation services for the elderly and planning community layouts to allow the elderly to be more mobile. There is little evidence that these are areas of current focus in Arab countries but will have to be considered in the future.

A8 Elder Care Resources

The overall level of population health in Saudi Arabia is changing as rapidly as the health care system that supports it. As a result of the significant growth in their socioeconomic status, the population has been dramatically influenced by the recent success. Obesity in middle-aged people has surfaced as a "growing problem," and with

it comes the ever-so-familiar accompanying risks of diabetes mellitus and coronary heart disease. [Baranowski, 2009]

The results of the Saudi Community-based National Epidemiological Household Survey conducted during 1990–1993, which used 10,651 subjects comprised of 50.8 percent males with a mean age of 35.8 years, indicated a 31.2 percent prevalence for being overweight (33.1% male and 29.4% female). When judging obesity, the Saudi study designated 22.1 percent of the sample set as obese. Their dietary habits, which include high carbohydrate intake (via bread, dates, sugar and potatoes), are recognized as leading factors in understanding the trend. [Baranowski, 2009]

The extreme environmental temperatures and fairly sedentary life styles of the population have a negative effect on the potential benefits of exercise. Recent surveys indicate that less that 5 percent of the people in Saudi Arabia perform any kind of physical exercise. This laxity is naturally more prevalent in the elderly segment. These sedentary life choices, coupled with the genetic predisposition for diabetes mellitus, point at Saudi Arabia as a high prevalence state for such diseases among the other nations of the world studied by the WHO. It is therefore recognized that the lifestyle of the people in this new kingdom, with a rising level of comfort and success, will further exacerbate the increased need for health care services. [Baranowski, 2009]

Poor program access and effectiveness were highlighted for chronic disease management programs. Language barriers as a factor suggest the need to train Saudis to delivery or assist in these programs. Al-Ahmadi and Roland [2005] identified the following as barriers: “management and organizational factors, implementation of evidence-based practice, professional development, use of referrals to secondary care, and organizational culture”.

Strategic planning is a useful mechanism for keeping up with changes in elder care management. Figure 4 below addresses changing population demographics and the increase in the elderly around the world. It also looks at the shift from strictly hospital and hospice- based care to more focus on lifestyle management. It also stresses the need for integrating services so that clients and families can move smoothly from one service to another and from one stage of life to the next. The diagram [adapted from Baycrest in Ontario Canada addresses the shortage in geriatric professionals and limited client financial resources suggesting the need to plan ahead in developing a pipeline for the training, hiring, and placing auxiliary health workers.

Nasser & Doumit [2011] have begun to identify component categories for elderly nursing homes in Lebanon:

1) Ranges of Activities;
2) Specification Of Health Services;
3) Needed Structures for Services And For Care
4) Types of Elderly Nursing Homes;
5) How to Design Boarding Services;
6) Sources of Funding;
7) Elder rights

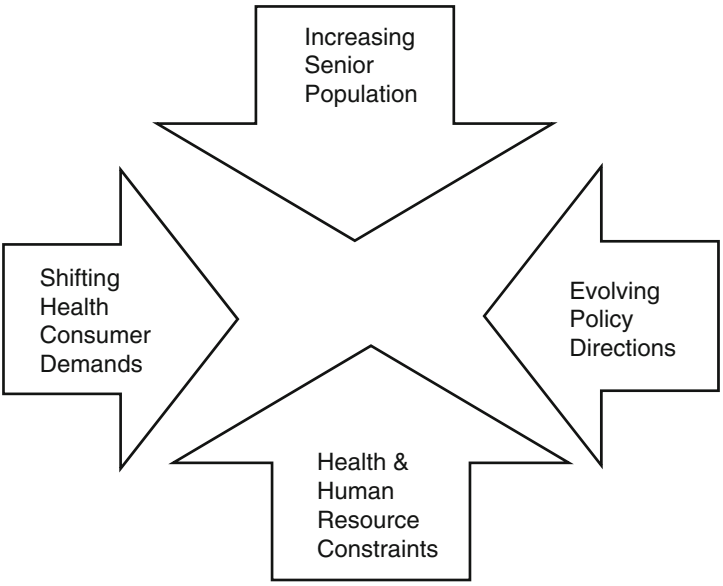

Fig. 4 Factors influencing changing population demographics and the increase in the elderly around the world. [Baycrest, Ontario Canada, Annual Report, 2007–2008]

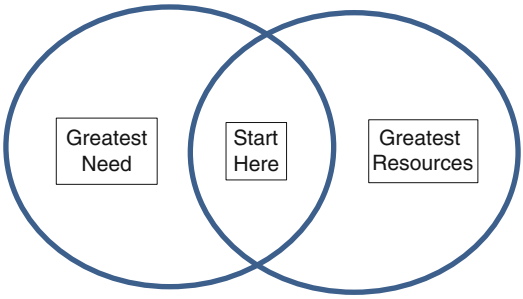

Fig. 5 Venn Diagram – Selection of Program Focus - Indiana University Center on Aging and Community

These categories will be used to organize the section.

1. Ranges of Activities

Activities include educational programs, exercise, and removing hazards and obstacles from the elderly environment (NICE, 2004). Helmets and hip protectors have been suggested in elderly with high risk of falls (Kannus et al., 2005),

but this may not be accepted by the elderly in the Egyptian community who highly value their traditional covering of their heads as a sign of respect. [Adam et al, 2008]

Glueckhauf et al [2009] have identified causal factors and resources leading to depression among caregivers of those with dementia suggesting that backup support for caregivers needs to be a part of any elder care.

The following listing from the Indiana University Center on Aging and Community groups is an ideal listing of services and resources for elders. It is realized that budgetary and staff limitations may not make all of these possible but should be on a list for future programming if the resources are not currently available:

1) Addresses Basic Needs
   - Appropriate and affordable housing
   - Safety in the home and neighborhood
   - No one goes hungry
   - Useful information on available services

2) Promotes Social and Civic Engagement
   - Meaningful relationships
   - Active engagement in community life
   - Meaningful paid and voluntary work
   - Community priority for aging issues

3) Optimizes Physical and Mental Health and Well Being
   - Health Behaviors
   - Community activities to enhance well being
   - Access to preventative health services
   - Access to medical, social, and palliative services

4) Maximizing Independence for Frail and Disabled
   - Resources for "living at home"
   - Accessible transportation
   - Support for caregivers

It might be unfair to rank areas based on these criteria but the list could serve as the basis for a curriculum in old aged planning. Based on resource availability, local groups could determine where the greatest need is and where the greatest potential is for addressing those needs:

2. Specification of Health Services

A number of studies have concluded that a way to increase elder care manpower is to integrate traditional care workers [*jabbariyn* and the like] into elder care. There is an overwhelming shortage of orthopedic surgeons in the rural areas of the Arab World and low income urban neighborhoods but the need is there. *Jabbariyn* [bone

setters] have been plying their trade for centuries and have developed considerable skill. Close work with an orthopedic surgeon and an assistant could lead to appropriate referral based on the Jabbar's initial review of limb damage. He could then refer the victim to the appropriate level of care.

Another example of building professional and traditional provider relationships is in Diagram 1 of Wahid's article entitled "Pathways of Care". In some areas, traditional healers are more available than professionals. By linking the two groups together, it may be possible to enhance referrals and to develop collaborative training so that each can learn about the other's practices. [Wahid, 2010]

In an article by Ahmed et al [1999], traditional healers in the Sudan were trained to promote family planning use and were quite successful in increasing contraceptive prevalence. They could certainly be trained to address issues of the elderly and taught where and how to refer suspected problems.

The information below came from Al-Ghanim - Profiling Elderly and Younger Patients Attending Health Care Facilities: Implications for Health Care Planning [2010]. Data on the elderly from Saudi Arabia have been scarce which makes comparison with other countries difficult. However, previous research in Saudi Arabia, although not specifically conducted to examine the utilization of health services by the elderly people, indicates that elderly people represent the most frequent users *[per capita?]* of health facilities such as primary health care centers (Al-Ghanim, 2005), secondary and tertiary health care facilities (Siddiqui and Ogbeide, 2002; Irshaid, et al., 2004) and acute health services (Al-Shammari, 1996). [Al-Ghanim, 2010].

Al-Ghanim conceded that comparing Saudi findings with findings reported from different health care systems is difficult and may lead to discrepant conclusions. Many [Arab World] countries have distinctly different health care systems. For example, some are based on a 'Gatekeeping' primary care and others are on an easy access to specialists as long as the patient can pay (Fry et al., 1995). However, the results showed that elderly patients make an increased use of the health resources which should prompt policy makers to propose health plans to cope with such an increase.

In the literature, there is a general assumption that the elderly population constitutes a unique subset of health services users. Older patients tend to have life-threatening conditions more often than do younger ones (Eagle et al., 1993), to be more often admitted to hospital (Sanders, 1992) and to attend a health facility with multiple acute illnesses (Meyer and Bridges, 1998). To those who recognize the rapid ageing of the Saudi society, the heavy utilization of health services by the elderly patients seems likely to increase. [al-Ghanim, 2010]

This is consistent with previous research (Howe et al., 2002; Kersnik et al., 2001; Neal et al., 2001; Scaife et al., 2000) which indicated that older patients are more likely to use health services than younger ones. However, the finding reported in this study contradicts the results reported from the United States (McFarland et al., 1985) which found that socio-demographic characteristics, including age of respondents, were not associated with health services utilization. Other studies found that age did not affect health services utilization (Feignson et al., 1997; Berki et al., 1984). [al-Ghanim, 2010] Al-Ghanim - Profiling Elderly and Younger Patients Attending Health Care Facilities: Implications for Health Care Planning

Getting the right balance of service intensity is important. With the changing structure of families [from extended to nuclear] in a number of Arab countries, it will be important to build in flexibility so that resources can be reallocated as needs change. [AHRQ, ND, "Environmental Scan of Instruments to Inform Consumer Choice in Assisted Living Facilities - Chapter 3. Assisted Living Defined".

3. Needed Resources for Services and For Care

Yount [2008] suggested that health care services be categorized by

a) Gender
b) Available kin reports of morbidity
c) Data on the actual use of health care
d) Available economic resources

According to Yount [2008], this would be a "convenient way of linking economic resources and family social support related to use of health care services".

An important strategy for addressing shortage of staffing and lack of integration of program services is through enhanced internet connectivity. Internet connectivity is improving world worldwide and allows for long distance connections between providers and between providers and clients and families. Although the study looks at US strategies for using enhanced broadband, similar plans need to be in place throughout the Arab World. [The National Broadband Plan, 2011]. Visual mapping from the National Obesity Observatory shows how data on obesity rates can be visualized on the internet making for a good planning and education tool.

Morgana et al. [2011] reported on the use of telehealth videoconferencing in a memory clinic in western Canada. Findings were:

- Rural patients and family caregivers participated in a 30-min pre-clinic telehealth assessment several weeks prior to a full-day interdisciplinary assessment in a tertiary care centre.
- Results from the first 137 patients show high satisfaction with telehealth for pre-assessment and follow-up, particularly the reduced travel required. The average distance saved by telehealth was 428 km per round trip.
- Most of the weekly consultations concerned depression or dementia related behavioural problems.

In a Saudi Arabian study by Al-Ahmadi and Roland [2005], the following points were made:

- factors identified as determining whether high-quality care was delivered. included management and organizational factors, implementation of evidence-based practice, professional development, use of referrals to secondary care, and organizational culture. [Al-Ahmadi & Roland, 2005]

According to Al-Ahmadi and Rowland [2005], the organization of Saudi primary care services has improved as follows:

- most centers are now reasonably staffed [32]
- 90% have records, disease registers, and follow-up systems,
- 74% have clinics for chronic illnesses [14]

Problems identified by Al-Ahmadi and Roland [2005] included

- poor information systems,
- staff turnover,
- stressful work conditions [29,33],
- overload of physicians [34,35],
- poor technology [31],
- shortage of resources [14,31].
- a wide range in the availability of essential drugs and laboratory items as between 10 and 86% [14].
- a particular shortage in health educators
- poor coordination with municipalities for proper provision of environmental
- health services, including sanitation of water and food sources and proper disposal of waste [31].

4. Types and Varieties of Elderly Nursing Homes

This is an area that is not addressed satisfactorily in this paper and efforts should be made to project into the future appropriate types and varieties based on observation of the limited number of such facilities now operating in the Arab World.

One example is Egypt which has set up a system of financial support [some $US 300 a month or about 50% of the cost] for the elderly using authorized elderly homes [although some ENHs did not want the government support]. Medical care and treatment are not included. Standards are being discussed for boarding services including: appropriate meals, accessibility, hygiene facilities, daily living activities; comfortable, healthy environments, mobility aides, tools for health assessment, and up to date record systems.

5. Sources of Funding

Shah Al-Malki et al. [2011] in their article “Health Care System in Saudi Arabia – an Overview” discussed a “government sector that is free and the private sector that is based on fee for service. Other services include:

- referral and teaching hospitals.
- school health units.
- private corporations such as ARAMCO and its health services,

- the Security Forces medical services,
- the National Guard Health Affairs, and Health Services in the Royal Commission for Jubeil and Yanbua.
- the Red Crescent [equivalent of the Red Cross] focuses on emergency services.
- almost 60% of services are offered through the Ministry of Health.

6. Elder rights

Several studies have provided rather detailed insights into caring for the Arab elderly. Sinunu et al [2008] reported the following:

1) Caregivers stressed the need for relief from the burden of caregiving
2) Some Egyptians are looking at approaches to get around the obligations[*wagibaat*] of taking care of ageing kin due to the fact that "adults over the age of 60 have become the fastest growing segment of the Egyptian population"

Thus, the question should not be simply how many resources there are but the extent to which they interface and the extent to which clients and their families can link somewhat effortlessly to them.

B Program Planning

With the rapid ageing of populations in Arab countries and increasing levels of unemployment among the youth in these very same countries, pressure will be on national budgets to cover an ever widening array of programs with limited funds:

Figure 6 below [adapted from Environmental Scan of Instruments to Inform Consumer Choice in Assisted Living Facilities – Chapter 3. Assisted Living Defined – AHRQ] will help planners determine the range of services and facilities for elder care based on available financing and other resources.

By carrying out surveys with sampling of the 60+ population, it would be possible to begin estimating the percentage of the population which would fit into the various quadrants and the number of workers needed in each category. The complexity of the diagram could be increased considerably. Even at this point, the demographic breakdown of the aged populations in the Arab World will help to determine the extent to which resources will be needed for each of the stages in the care continuum. When looking at the care continuum, it is apparent that the majority of costs associated with ageing will be focused on only a subset of those 60+. Beginning to identify that subset and being able to estimate how to provide services economically will be important in program design, planning, implementation, and evaluation. Since problems of ageing often have both a physical and mental component [depression is high], integration of the two treatment components is important as pointed out in figure 2 from the article by: Peek and Heinrich [1995]. The figure identifies geographic catchment areas covered by a

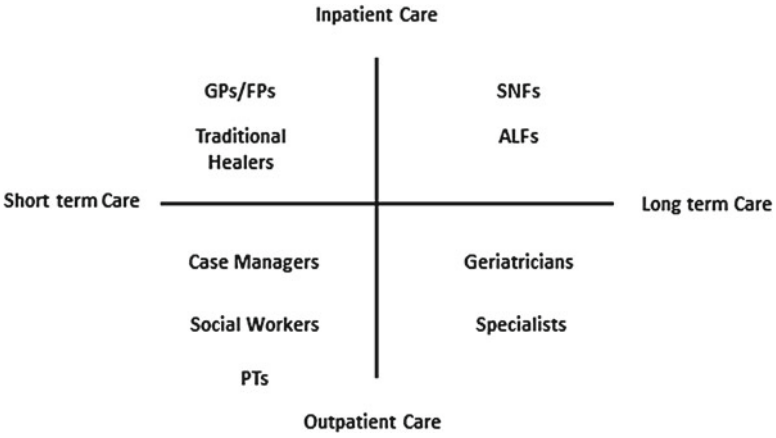

Fig. 6 Determining the range of services and facilities for elder care based on available financing and other resources [Agency for Healthcare Research and Quality, December 2006]

given health center. The idea will be to develop communication links between Ministry of Health [MOH] providers and private providers so that roles can be defined based on the combination of skills and resources of each.

According to Al-Malki et al [2011], "As a result of the continued attention to and support from the government, Saudi health services have advanced greatly over recent years in all levels of health services: primary, secondary and tertiary. As a consequence, the health of the Saudi population has improved markedly. The MOH has introduced many reforms to its services, with substantial emphasis on PHC. Despite these achievements, health services, and in particular public sector health services, are still facing many challenges. These include:

- human resource development;
- separation of the MOH's multiple roles (financing, provision, control and supervision of health care delivery);
- diversifying financial sources;
- implementing the cooperative health insurance,
- privatization of public hospitals,
- effective management of chronic diseases;
- development of practical policies for national crises;
- establishment of an efficient national health information system and the introduction of e-health.

[Al-Malki et al – 2011]

In order to address these strategies and challenges that come with them, the Saudi MOH and other related sectors [have begun] to coordinate their efforts to implement and ensure the success of the new health care strategy." [Al-Malki et al – 2011] by:

- diversifying funding sources;
- developing information systems;

- developing the human workforce;
- activating the supervision and monitoring role of the MOH over health services;
- encouraging the private sector to take its position in providing health services;
- improving the quality of preventive, curative and rehabilitative care; and
- distributing health care services equally to all regions.

B1 Training Issues

The improvement of communication through satellites and the internet greatly facilitates distance education and training. Even in the 80's and 90's, some countries used radio as a training tool for dispersed health workers and are still being used: [Healthy Mothers, Healthy Children: A Child Survival Initiative in Petit-Goâve, Haiti Final Evaluation Report (November-December 2010). CA #: GHS-A-00-04-00021-00]

The Workforce Planning Model developed by Enterprise Saint John of New Brunswick, Canada has 4 phases:

- Agency Strategic Direction,
- Workforce Analysis,
- Workforce Plan Implementation, and
- Workforce Monitoring, Evaluation, and Revisions.

The phases of the model are numbered but it is the feeling of this writer that the phases should be spokes in a wheel since monitoring and evaluation tools should be defined along with strategic direction. For this paper, "Conducting a Workforce Analysis" is guidance on how to:

- Analyze the current workforce profile
- Analyze 60+ demographics and develop a profile for future workforce development
- Analyze the gap between supply and demand
- Develop a plan for filling the gap and possibly retraining workers in an oversupply area to fill shortage areas.

Another important concept presented by Hweidi and al-Hassan in their article: "Jordanian nurses' attitudes toward older patients in acute care settings" [2005] was the problem that not all health workers enjoy working with aging populations. Fortunately, it was found that, as nurses spent more time with the elderly, their attitudes quite often became much more positive. Surprisingly, male nurses' attitudes were more positive in working with clients than were female nurses. The question raised was whether training nurses to work with the elderly should be done as a part of nursing school curriculum or for those who seemed most disposed initially to working with the elderly.

The study authors concluded that "Strategies should be adopted to maintain and strengthen the social system structure in Jordan, and enroll nurses in continuing education programmes that address basic gerontological aspects in terms of health

and social needs. In terms of basic education, more focus on nursing gerontological training and curricula in basic programmes is needed. Furthermore, gerontological nursing should be incorporated in both undergraduate educational programmes and other graduate majors. The educational programmes should give special attention to female nurses and those who are working in the medical units. Continuous education in clinical placement particularly for participating nurses who are young and have less clinical experience is also of great value" [Hweidi and al-Hassan, 2005].

B2 Training Capacity & Capabilities

In a 2004 monograph for the World Bank Institute, Pierre-Louis et al. made the following points:

- Countries differ in terms of whether their current public health infrastructure is mainly service-oriented, mainly academic, or a mixture, or are in the process of expanding their service functions.
- Funding of public health is not seen as a priority when the demands for acute services are increasing.
- Clinicians not in the public health system are not geared to patient lifestyle change strategies
- In countries where public health is primarily academic, training is of lower priority than degree programs
- Recruiting and retaining public health workers is difficult due to the low visibility of the profession.

On the other hand, according to the publication "Al-Bawaba", "The Middle East's healthcare sector [including Pakistan] is emerging as one of the fastest-growing and most attractive markets for the world's hospital equipment and services companies, with an estimated value of US $74 billion" The point was made, however, that the level of spending on health varied from .5% to 5% of the annual national budget. Medical tourism has been a focus in a number of these countries.

An example of an organization with an academic focus is the Center for Studies on Aging located in Lebanon with a number of its founding members having an association with the American University of Beirut. The overall aim of the CSA is to create a hub for research, education, policy formulation, and training on ageing in Lebanon and the region. Page 34 of the monograph provides a country by country summary of public health infrastructure, functions, funding, and training efforts. Regular updating of such information would be valuable in developing long term planning for the area. Also of value would be regular updates on the numbers of teaching and national hospitals, district hospitals, health centers, and local clinics by country. Breakdowns of the age distributions of caregivers of elders would be useful, as well, in planning for a replacement pipeline as workers age out of being active care givers.

In another article, the question was raised as to "How women balance their multiple roles". This depends on the structure of the household to a good measure.

Suggestions were that "A variety of support measures should be introduced, including flexible care arrangements between the formal and informal sector, such as respite care provision. Moreover, flexible work environments and the availability of supportive workplace policies are crucial to enhancing women's participation in the labor force [Hussein, 2009].

A paper by Sinunu et al [2009] looked at family caregivers who did and did not use "long-term care centers in Cairo". Those who used the facilities justified it by defining such facilities as simply an extension of the role of the family caregiver. Boggatz and Dassen [2005] traced the growth of "old people's homes" in Egypt and found that the number increased from 28 in 1978 to 77 in 2002 with an average number of places between 36 and 59, rather slow growth for a large country. Not much information was available about quality of care. The authors suggested that a focus on home health care services might be more appropriate.

Al-Malki et al [2011] looking at MOH health personnel in Saudi Arabia reported what appeared to be less than 100 physicians and nurses, and some 200+ allied health workers, certainly a small number for a growing country. It might be argued that those Arab States with the highest GDP/capita should pay for development of schools for health professionals initially and to facilitate the development of such schools in other Arab States so that they could turn out health professionals who would commit to a minimum number of years of work in the state providing the funding.

B3 Financial Resources

Even though health expenditures are on the rise in the Arab World, how to spend the money is a major issue. Younis et al [2012] looked at the value of a cardiac catheterization unit in the Palestinian region and made the following assumptions:

The objectives of the cardiac catheterization unit are to:

1. Provide a local, essential, and lifesaving service;
2. Alleviate the burden of travel to the heart disease patient;
3. Save money for the facility;
4. Provide further training in invasive cardiology for Palestinian doctors and nurses; and
5. Provide necessary support for local cardiovascular surgeons.

The authors were interested in break-even points over five years. Their work will be useful for health care planners interested in determining whether or not to invest in such resources or whether to refer patients to other facilities. In the Younis et al article, four main cost items are taken into consideration to calculate fixed costs:

1. Cost of medical equipment;
2. Cost of furniture and equipment;
3. Salary of doctors, nurses, and all staff in the cardiac catheterization unit; and
4. Overhead allocation from overhead centers to the cardiac catheterization unit

Using the unit's data, it was found that unit variable cost is

- US$ 140.5139 for diagnosis;
- US$ 532.3362 for balloon; and
- US$ 1,689.898 for pacemaker.

Younis et al concluded that "From this study, results reveal that variable costs represent 56 percent of the total costs, while fixed costs are 44 percent of the total costs. More studies of this type are clearly needed.

B4 Human Resources

Core health occupations include nursing, midwifery, associate nurses, associate midwives, traditional medicine practitioners and faith healers, computing professionals, social science specialists, associate administrators, secretaries and keyboard operators, and people working in maintenance fields. [Dal Poz et al, 2007].

Dal Poz et al [2007], WHO developed a survey and executed it through its regional and country offices looking both at health workers and health training institutions. Data included "information on the numbers and distribution of health workers according to such characteristics as gender, age profile, geographical distribution, sector of employment, citizenship status and level of unemployment" Goals were to have countries categorize their workers according to international classification systems, while maintaining some country-specific classifications for selected types of occupations

A cursory review of the literature on Human Resources in the Arab World gives an indication of a work in progress. Some brave authors have begun to pull pieces together and what appears is 'a lot of work is needed to build a public health and health care workforce to begin addressing the rapidly changing realities that are even now facing the 22 countries of the Arab League. One possible approach would be to begin, as mentioned above, to cobble together existing resources including traditional healers such as the '*jabbaar'* or bone setter http://tinyurl.com/7eroeso with the orthopedic surgeon.

The issue for the elderly is much more of a short term challenge in that, in the US, for example, the health care of people in their last year of life consumes some 20% of the health care budget. While Islamic medicine has been proposed as a possible resource, according to one author, "There are currently no Islamic medicine training programs in any Arab country" [Adib, 2004].

Salim et al [2009] developed age-adjusted cancer prevalence data for males in a number of countries with Arab populations and the following cancers had the higher rates: tracheal, lung, prostate, and bladder. Outside of preventive programs, specialists in these areas would appear to be priorities.

As in many countries, "the healthcare industry in the UAE is thriving. The government continues to invest in healthcare infrastructure, services, and education that not only meet the needs of its growing population, but competes with countries

like India, Singapore, and Thailand in becoming a major destination in the growing global health tourism industry which is estimated to be $100bn by 2012." (Ameinfo.com, 2009a) [www.ameinfo.com].

Recently published findings of the report, "Expand, Consolidate & Support: Meeting the GCC Healthcare Challenge 2050" (Ameinfo.com, 2009a) and produced in partnership with Dow Jones Private Equity, concludes that the GCC would need 138,965 hospital beds; 140,334 physicians and 227,079 nurses by 2050 to maintain current healthcare levels. It is reported, "UAE alone will need 15,698 new beds and physicians along with 31,396 additional nurses" (Dow Jones and Company, 2009). In yet another report, Sustainable and Profitable Healthcare Investment in the Middle East', it is predicted that "the U.A.E. healthcare market will grow over 14 percent annually between 2005 and 2015, from $3.2bn to $11.9bn" (Ameinfo.com, 2009b). [Amaize et al, The Need for More Professional Training Programs in Tourism, Arts & Culture, Sports, and Healthcare Management in the UAE: A Survey of Prospective and Current College Students].

One problem is that a lot of the energy in the GCC is aimed at the elite and foreign medical clients. Services are, in large part, provided by foreign institutions and foreign labor which limits the development of local bases of resources. "According to Faisal Bin Juma Belhoul, Founder & Managing Partner, Ithmar Capital: 'Intellectual fragmentation is also an issue, with GCC healthcare remaining reliant on imported expertise, whilst government projects to develop native talent are strictly long-term"'. A report looking at UAE educational specialization, reported that medicine, dentistry, subjects allied to medicine, and biological sciences made up just a few percent of all enrolments. [British Council TNE Report, 2009].

An article by Mourshed et al [2006] pointed out that the compound annual population growth rate of the GCC will be around 3.0% or one of the highest in the world until around 2015 and will ease back to around 1.8% leading to a doubling of the population in 2025. More challenging, "the number of people over 65 will increase more than sevenfold during the next 25 years" A WHO/UAE study [2001] indicated that 25% of AE citizens have diabetes [4 to 5 times the world average]. Some GCC nationals 60+ suffer both from diabetes and obesity.

This figure rises to an unprecedented level of 40 percent for those aged 60 or above. [Mourshed et al, 2006]. "Treatment demand for diabetes and CVD will increase 300 to 400% during this period. By 2025, there will be a need for 80,000 new hospital beds. Costs during this period will increase a projected 5 times to around $60 billion. There is need for centralization of higher level services since institutions have to have enough of demand for services to guarantee quality."

Issues pointed out in the Mourshed et al (2006) article include:

- the GCC cannot provide adequate local clinical staff
- foreign workers comprise up to 80 percent of physicians
- there is collaboration between GCC countries and European and US medical schools
- new doctors will not keep pace with population increases.
- there will continue to be reliance on external physicians and nurses

- this will lead to local staff needing to work with external staff
- external staff, in general, view jobs in the GCC as of temporary duration
- one benefit could be having those with greater experience train those with less experience for some time to come.
- there will need to be the capability of GCC institutions to absorb outsiders for some time to come

As of 2003, the UAE was reported to have imported 82% of its physicians and 96% of its nurses. At the other extreme, Bahrain had 30% of its physicians from outside and 48% of its nurses expatriate. [Mourshed et al, 2006]. Dubai requires doctors, nurses and medical technicians to complete continuing education. This is in addition to annual performance appraisals and will be a basic requirement for promotion and benefits. Abu Dhabi indicated it needed to recruit about 3,400 doctors and nurses every year to meet demand with the numbers increasing to 5,000 more doctors and 6,500 nurses by 2019.

C Conclusions and Recommendations

This section is divided into two: Conclusions and Recommendations. Since the paper is not comprehensive, please view the list as only a beginning.

Conclusions

The Arab World has some of the highest growth rates and highest inflation rates anywhere resulting in rapid drops in GDP/capita. It is projected that the elderly population in the Arab World will quadruple from 2010 to 2050 and life expectancy "is estimated to reach 75.2 years for men and 79.4 years for women [ESCWA, 2007].

The Arab World, although united by language and culture, is a very diverse assemblage of democracies, kingdoms, princedoms, and tribal affiliations. Thus, approaches which work in one country must be retested in each new state. There is need for a conceptual planning framework that fits with a majority of the needs of the Arab World if the countries are going to be able to benefit from each other's experiences. On the other hand, while there are cultural and linguistic commonalities among Arab states, the way that health and social services are organized can be very different. Further, some of the 22 countries have small populations and relatively high GDPs while others are at the lower end of the GDP spectrum.

In the GCC, deaths from chronic diseases, such as cancer, hypertension, cardiovascular diseases, and diabetes are increasing at some of the fastest rates in the world due to the rapid movement from agrarian and nomadic existences to city dwellers. Little has been done to address the high level of depression found among

the elderly in countries where there have been surveys and studies. Programs must deal with feelings of shame related to receiving elder care from non-family members. These feelings may override addressing physical impairments.

The 60+ population uses health services at a rate 50% higher than the rest of the population [where there is access]. They are 2.5 times as likely to initiate care in a given year and hospital stays tend to be twice as long as for those under 60. Home care appears to be a relatively new phenomenon in the Arab World. Support networks for the elderly are disappearing rapidly throughout the Arab World as extended families begin to disappear.

As more women leave the home for work not much is being done to replace the care they given in the house to address the need for nursing care. Studies in the area have shown "a direct relationship between social support and general health status among older adults. As GDPs/capita drop, it can be expected that those with disabilities will find themselves in a crisis.

The biomedical model and doctors dominate public health and intervention dominates prevention. Implications are that funding of public health is not seen as a priority, Clinicians not in the public health system are not geared to patient life-style change strategies, In countries where public health is primarily academic, training is of lower priority than degree programs. So called nonresident "workers" in some Arab states are not likely, in the main, to become permanent residents so only simple skills training would be relevant for them to serve as a source of home care In the GCC the supply of native workers is rising while demand falls and open unemployment surfaces.

There are also qualitative differences in the way that services are provided with short consults a pattern, referrals sporadic, little patient education, low levels of patient compliance with clinical directives and patient demands for medications. Emergency Departments spend little time on risk factor assessment. Problems with the care system also affect the workers and these include: poor information systems, staff turnover, stressful work conditions, overloads on physicians, poor technology, and shortage of resources.

Given the Arab Spring, [the fact that years of life lost from noncommunicable diseases are three times higher [Libya] than from communicable diseases], the effect of the uprisings seems to hit hardest on the poor. The uprisings often result in collapse of public services. A lot of care provided is based on the "Quranic injunction to almsgiving (which has become a foundation of the Islamic organized charity, and organizations are functioning solely based on zakaat (Islamic tax on wealth) contributions including such large institutions as International Islamic Relief (Benthall, 1999).

A majority of the costs associated with aging are among about 20% of the 60+ population. Hospital bed demand will be multiples of what it is now in a short period of time. Since most physicians in the GCC are nonArab, and since many do not see themselves as permanent residents due to the GCC immigration and naturalizations policies, staff shortages will become even more severe.

Recommendations

Focus across the Arab World must be on: diversifying funding sources; enhancing information systems; augmenting the human workforce; strengthening the supervision and monitoring role of the MOH over health services; achieving more of a balance between public, nonprofit, and for profit health services; placing more evidence on preventive, curative and rehabilitative care; and increasing the distribution of health services.

Given the relative cultural and linguistic homogeneity of the Arab world and its economic, demographic, and social diversity, coordinated development of programs cross these 22 countries [with perhaps North Africa taking the lead due to the urgency of the situation there], area-wide solutions be possible, Given the growth in internet-based telecommunications, this could be done more rapidly than would have been the case in the past. For example, there are a reasonable number of geriatric tools that have been translated into Arabic and field tested. Several centers should be established around the Arab World which could collaborate on studying these further.

Much more emphasis needs to be placed on continuing education for physicians and allied health workers than is now the case. Telehealth has been tried in the Arab World and seems to be well received. The average distance saved by telehealth was 428 km per round trip. Satisfaction with telehealth for pre-assessment and follow-up, particularly the reduced travel required could do a lot to extend provider resources.

Research funding is needed to support: analyzing the existing work force planning for increased training programs and efforts, and monitoring elderly demographics across the Arab World, and comparing supply and demand. Looking at ways to adapt the Egyptian approach of providing financial support to elderly needing institutional housing must be studied elsewhere in the Arab World.

The suggestions of Shah al-Malki in Saudi Arabia [2011] to enhance: referral and teaching hospitals, strengthen school health units, involving private corporations such as ARAMCO and its health services, enhancing the Security Forces medical services and the National Guard programs and augmenting the resources of the Red Crescent and its focus on emergency services could be tested elsewhere in the Arab World.

In the Gulf States, there are high percentages of in-migrants. Could these foreign-born domestics be a source of elder care at the lower skill levels? A possible intermediate solution might be to train Arab nationals as heads of a team of caretakers of the elderly in a way that the team head's salary would be adequate to interest possible Arab employees. [ESCWA, 2007]. Other approaches could include the training of family members, caretakers, trainers of caretakers, and trainers of trainers in elder care [El-Tinay et al, 2007] including training strategies for dealing with depression through integrating physical and mental health service programs. Going beyond the household to the community, Jabbour et al [2006] came up with a list of "Health actions that could promote wider reform": advocacy networks, examples of local actions, participating in health professionals' organizations, link with global organizations, become experts in using the media, recruiting public figures to support their causes, raise funds, and involve in institutions in the health sector.

Notes

"The term Arab is associated with a particular region of the world. "Almost all of the people in the region extending from the Atlantic coast of Northern Africa to the Arabian Gulf (See map from Teebi, 1997) call themselves Arabs. The classification is based largely on common language (Arabic) and a shared sense of geographic, historical, and cultural identity." http://erc.msh.org/mainpage.cfm?file=5.4.2a.htm&module=provider&language=English

The term Arab is not a racial classification [but a language classification – WBW], but includes peoples with widely varied physical features". [Hammad et al - Guide to Arab Culture: Health Care Delivery to the Arab American Community – 1999]. "The religion of Islam is closely associated with Arab identity because of the origin of Islam in the Arabian peninsula and the fact that the language of Arabic is the sacred language of the Holy Qur'an." [Ahmed, 2004].

According to Hammad [1999] and others, the Prophet stimulated a wide search for knowledge and the rise of Islam led to development of a movement called by Arabs "unani tibb" or Greek Medicine. It was formulated in its current form over a millennium ago [Hammad, 1999]. The impetus for the development of this healing system arose with the burst of Islamic civilization. In the 7th century AD, Islamic civilization emerged from the Arabian Peninsula, expanding east and west and ultimately extending from Morocco and Spain (Andalusia) across the spice route to China. The Prophetic dictate to "seek knowledge as far as China" and the Islamic culture's perception of itself as an expression of the primordial wisdom tradition stimulated widespread establishment of schools and centers of learning (Ibid 1983). The Islamic Caliphates of the 7th and 8th centuries encouraged the translation and study of scholastic works from a wide range of cultures. Islamic scholastic centers began to disseminate Islamic studies as well as absorb and integrate the scholastic inheritance of the ancient cultures, East and West. This emerging civilization synthesized wide ranging ancient Greek, Turkish, Indian, Persian, and indigenous Arab traditions within an Islamic framework, producing a comprehensive, analytic

W.B. Ward and M.Z. Younis, *Steps Toward a Planning Framework for Elder Care in the Arab World*, SpringerBriefs in Aging,
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and scientific system of healing. The works of "Muslim scholars of medicine [and other fields] including Ibn Sina (Avincenna), Hunayn ibn Ishaq al- Ibadi, and al-Razi (Rhazes)" eventually led to the European Renaissance, partly as a result of the Arab [and later], the Ottoman invasion of Europe. Hospitals were an outshoot of the Islamic Waqf movement [Hammad, 1999] http://www.interhealthcanada.com/UploadFiles/File/Vol2Issue2.pdf
Percentage Muslim (most recent) by country http://www.nationmaster.com/graph/rel_isl_per_mus-religion-islam-percentage-muslim

The Elderly Support Ratio [ESR] [table from the URL below] is the number of people of "working age" (15–64) divided by those ages 65+. http://www.prb.org/DataFinder/Topic/Rankings.aspx?ind=24&loc=249,250,251,252,253,254,255,275,276,287,288,297,360,363,365,366,367,368,369,370,371,373,374,375

UNESCWA projects a considerable drop in the Elderly Support Ratio in the Arab World over the period of 2010 to 2050. The UAE and Bahrain have high ratios currently through importing workers [the question might be whether that is a meaningful measure or not because of cultural differences]. Because of growing domestic populations and the resultant drop in GDP/capita, the assumption is that these countries will not be able to continue to import workers at the current ratio and, as a result, their Elderly Support Ratios will drop dramatically. [refs]. [UNESCWA - Ageing In The Arab Countries: Regional Variations, Policies And Programmes]. Further, there is not, to the author's knowledge, any major effort underway in the UAE or Bahrain, to train members of the population on the care of the elderly.

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