

Elderly Lebanese Women in an Aging World

By Abla Mehio Sibai & May Beydoun
American University of Beirut
Faculty of Health Sciences
Department of Epidemiology and Biostatistics

I. Introduction

The turning point at which aging begins is ill defined, and the question arises as to whether there can be an age for aging (Tout, 1989). Old age is culturally determined and varies with time, person and place. Philosophers, long time ago, defined old age as the time when the individual reaches his highest point of development. According to Hippocrates, this is reached at 56, to Aristotle at 35 for the body and 50 for the soul and to Dante at 45 (De Beauvoir, 1972). In some cultures, aged is equaled with menopause in females, and in others men are not regarded as old until they are retired. Old age is perceived differently in Bangladesh where life expectancy at birth is 49 years than in Sweden or Japan where life expectancy at birth exceeds 77 years.

In Arabic, there are more than one word for old man. Though often used interchangeably, each has a different connotation. For example, '*Sheikh*' is a word commonly used to signify respect. '*Ajouz*' is derived from '*ajaz*' meaning 'disability', and hence it undertones an inability to perform a certain task. '*Musenn*' is another word derived from '*senn*' meaning 'age', and indicates that a person has lived for many years.

The chronological onset of old age differs depending on the country considered and on the objective of the research. Although the cutoff point used to describe the elderly population is somewhat arbitrary, it is in line with the criteria used in many countries to define eligibility for retirement and social benefits (WHO, 1995). The World Health Organization has traditionally used the age of 65 and above to designate the elderly. In contrast, the United Nations, in the context of the International Plan of Action on Ageing, defined it as 60 years and over and in developing countries a cut-off point of 60 or 55 is often being cited. However, as the elderly constitute a heterogeneous group, it is more appropriate to define different strata for the aged: the young old (60-69), the middle old (70-79) and the old-old (80 and over). For this article, the cut-off point for the aged was set at 60 years. The age group 60-64 years represents an important transitory stage in the life of the individual whereby he/she is at risk of exposure to a multitude of life events most markedly retirement.

Aging is relatively a recent phenomenon, and the elderly population has been one of the most rapidly growing population

segments since the turn of the century. The demographic transition—a concept that was coined 50 years ago—has led to a rapid decline in fertility and an increase in life expectancy. This transition is marked by three successive stages. The population is in equilibrium at first with simultaneous elevation in both birth and death rates, slow population growth and a young age structure. However, in the second stage (population explosion), mortality is reduced while birth rate remains high leading to a rapid growth in the population. Finally, during the third stage of the demographic transition, the population returns to equilibrium with decline in both mortality and fertility rates. During this stage, a marked increase in the proportion of elderly people is inevitable leading to population aging.

This article begins with a brief account of the particular features of demographic aging in Lebanon comparing women to men. The socio-cultural and health characteristics are presented next for women only. The last section draws upon the results obtained in this study as well as from other studies to suggest a framework for action.

II. Proportion of Elderly in Lebanon: A Secular Trend

The Lebanese population has witnessed a clear demographic transition in the past few decades. The decline in fertility rates has led to a lower proportion in the younger age groups and consequently to a narrowing down of the population pyramid base. While Lebanon has still a large proportion of its population in the 0-14 years age groups, data from several sources show a growth in the proportion of its elderly population. The Central Directorate of Statistics of the Ministry of Planning in Lebanon (1972) had estimated the proportion of population who were 60 years and older as 7.8% in 1970 and the United Nations estimated it at around 8.3% in 1986 (UN, 1987). More recently, and, according to the findings of the Population and Housing Survey that was carried out by the Ministry of Social Affairs in 1996, 10.3 % of the total Lebanese population consisted of elderly people (10.2 % among males and 10.4 % among females; Table 1 & Figure 1). Given the continuous decline in fertility rates and increase in life expectancy, because of imported medical interventions and technologies, this demographic transition is expected to continue in the coming decades.

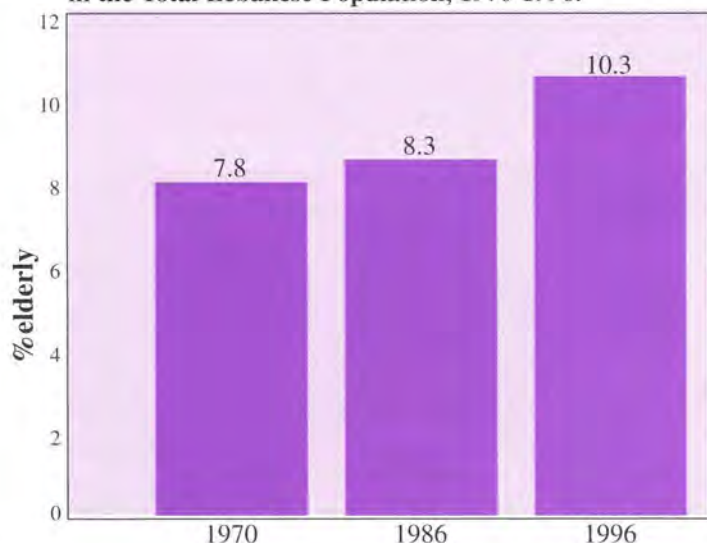
III. Distribution of the Elderly by Age, Sex and Geographical Area

In 1996, and according to the Population and Housing Survey (PHS), the total elderly population (above 60 years) was estimated at 319,142 (156,920 males and 162,222 females), and the number of centenarians i.e. persons aged 100 years and

Table 1. Proportion Elderly Above 60 and 65 Years Among the Lebanese Population, 1970 - 1996.

Study	Males		Females		Total	
	N	%	N	%	N	%
Lebanon, 1970						
60 years and above	83,115	7.3	80,565	8.2	163,680	7.8
65 years and above	52,770	4.9	52,575	5.0	105,345	4.9
Lebanon, 1996						
60 years and above	156,920	10.2	162,222	10.4	319,142	10.3
65 years and above	104,818	6.8	108,466	6.9	213,284	6.8

Figure 1. Trend in Percent Elderly Above 60 Years Old in the Total Lebanese Population, 1970-1996.



survey in 1996. The elderly populations in Lebanon are not equally distributed across Governorates. In fact, the largest number of elderly people (38.6%) resides in Mount Lebanon and the smallest in the Governorates of the South (7.3%) and Nabatieh (7.1%). In addition, most of the elderly group (82.3%) resides in urban areas rather than rural ones. These figures, in fact, represent proportionate percentages and hence reflect the concentration of the elderly individuals across the Lebanese Governorates. Their significance lies, not in terms of degree of aging, as much as in guiding policymakers when planning service provisions to the elderly in Lebanon.

Percentage elderly in the total population — which reflects the degree of aging in a certain region — was highest in Beirut (13.6%). In contrast, the percent elderly was found to be small in Mount Lebanon (10.8%) and in the Bekaa and North regions (8.9% and 8.8% respectively) and to a lesser extent in the South Governorate (8.3%). As expected, rural areas showed slightly larger estimates than urban ones. The relatively high figure in Nabatieh (11%) reflects emigration of the young population to safer areas within or outside Lebanon seeking better employment opportunities, and leaving behind a larger proportion of elderly people.

IV. Life Expectancy: Comparison with Other Countries

Life expectancy is one of the desirable summary indices commonly used as an indicator of aging. It is shaped by a

There is a greater differential in life expectancy of women compared to men in developed countries

older were estimated at 271 for males and 431 for females.

Table 2 presents the distribution of the elderly population by age and sex as well as the sex ratio in each age category.

Sex ratios were found to be close to unity in the younger olds (60-74 years). In contrast, the proportion of females among the elderly population exceeded that of males in the older generations. The M/F sex ratio was equal to 0.85 in the age group 80 years and above, whereby females accounted for a higher proportion (12.1%) than the males (10.6%). Such a pronounced gender imbalance has been described as the 'feminization of aging' and is the current experience of many developed countries.

Table 3 shows the geographic distribution of elderly population by place of residence as reported at the time of the

Table 2. Distribution of Elderly Population (60 Years and Above) by Age and Sex, PHS, 1996.

Age (years)	Males		Females		Total		Sex ratio (M/F)
	N	%	N	%	N	%	
60-64	52,102	33.2	53,756	33.1	105,858	33.2	0.97
65-69	42,771	27.3	42,651	26.3	85,422	26.8	1.00
70-74	31,293	19.8	31,078	19.0	62,371	19.4	1.01
75-79	14,094	9.0	15,126	9.3	29,220	9.2	0.93
80+	16,660	10.6	19,611	12.1	36,271	11.4	0.85
Total	156,920	100.0	162,222	100.0	319,142	100.0	0.97

Table 3. Geographic Distribution of Total and Elderly Population by Place of Residence, PHS, 1996.

Place of Residence	Total Population	Elderly Population	Proportionate %	% Elderly in Total Population
Governorates				
Beirut ¹	407,403	55,466	17.4	13.6
Mount Lebanon ²	1,145,458	123,082	38.6	10.8
Bekaa ⁵	399,891	35,542	11.1	8.9
North ³	670,609	58,937	18.5	8.8
South ⁴	283,057	23,438	7.3	8.3
Nabatieh ⁶	205,411	22,675	7.1	11.0
Area				
Urban	2,513,461	262,800	82.3	10.5
Rural	598,367	56,343	17.7	9.4
Total	3,111,828	319,143	100.0	10.3

1. Administrative Beirut
2. Includes: Baabda, El-Metn, El-Shuf, Alay, Kesrwan and Jbeil
3. Includes: Tripoli, El-Kura, Zghorta, El-Batrun, Akkar and Bsharre
4. Includes: Saida, Sour and Jezzīn
5. Includes: Zahle, West Bekaa, Baalbek, El-Hermel, and Rashayya
6. Includes: Nabatiyye, Bent Jbayl, Marj'ayun and Hasbayya

multitude of factors including social, economic, cultural and health characteristics and is often determined by the level of development in the country. Because of the lack of baseline data, demographic estimates for life expectancies in Lebanon vary in international statistical books. Nevertheless, data from different sources are consistent with the greater life expectancy at birth for women in comparison to men.

For comparative purposes, table 4 shows life expectancy at

Table 4. Life Expectancy at Birth for Selected Countries, Human Development Report, 1996.

Life Expectancy at Birth (Years)	Males	Females	Total
Lebanon	66,8	70,7	68,7
Developed Countries			
Japan	76,5	82,6	79,6
United States	72,6	79,4	76,1
Arab Countries			
Kuwait	73,4	77,3	75,0
Saudi Arabia	68,6	71,6	69,9
Tunisia	67,1	68,9	68,0
Iraq	64,6	67,6	66,1
Egypt	62,7	65,1	63,9
Yemen	50,1	50,6	50,4
Developing Countries			
Kenya	54,1	57,1	55,5
Nigeria	49,0	52,2	50,6
Angola	45,2	48,4	46,8
World	61,4	64,6	63,0

birth for selected countries as presented by the Human Development Report for the year 1996 (UNDP, 1996). Few countries were selected from each of the developed, developing and the Arab World. In the developed world, life expectancy is relatively elevated for both genders (above 75 years for the United States and close to 80 years for Japan). The Arab countries show wide variations in their life expectancy ranging from as high as 75 years in Kuwait to 63.9 years in Egypt and as low as 50.4 years in Yemen.

In contrast, people in some developing countries are not expected to live on average for more than 50 years. According to the Human Development Report estimates, Lebanon's figures, for

both sexes, are closer to the developed than the developing world.

The gender gap in life expectancy appears markedly different between developed and developing countries. There is a greater differential in life expectancy of women compared to men in developed countries. In these countries, women live on average about six years longer than men. While less pronounced, the difference in life expectancy between men and women in Lebanon is nonetheless evident (around 4 years). The wider the gender gap the more elderly women are expected to suffer from the consequences of widowhood, loneliness, major restructuring of family relationships and social roles, loss in socio-economic resources and decline in social support.

V. Socio-Economic, Social and Health Characteristics of Elderly Women

The social status as well as the health profile of aging women is readily seen to stem from their economic, cultural, social and biological characteristics. The first two sections below focus on major socio-economic and social resources of elderly women in Lebanon using data from the PHS survey. The third synthesizes data from other sources and studies to describe their health profile.

A. Socio-Economic Resources

Financial security in old age is determined by the interaction of many factors. The most important of these are education, occupation and income. Educational attainment distinguishes groups differently situated in their initial encounters with the labor market.



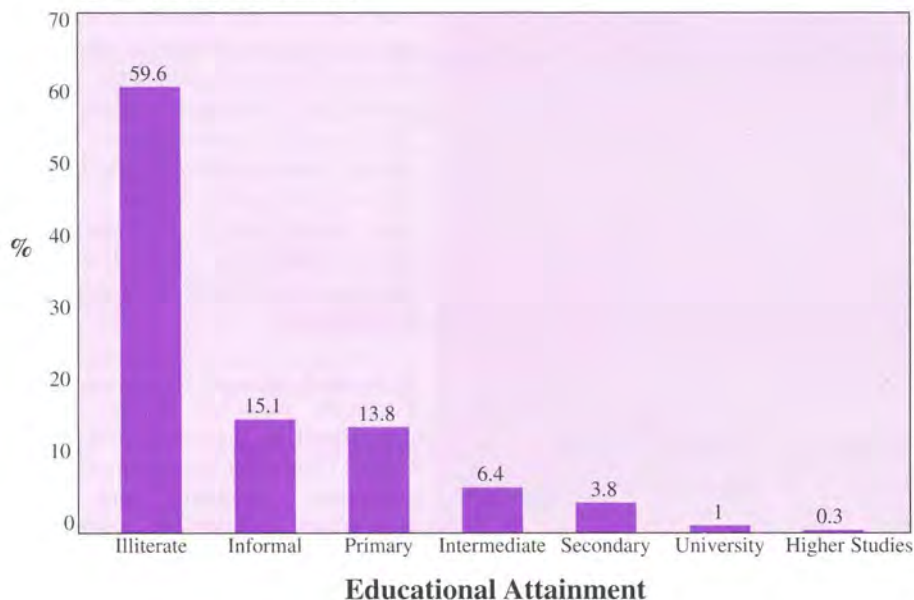
Picture Credit: Ali Hassan, "An-Nahar"

During working years, the level of education of individuals in a community may affect their income in a direct manner. However, with the advent of old age, other indirect routes affect an educated person's income and financial security (Crystal et al., 1992). While this may be marked for elderly males in general, it is less distinct for females. Because of this, the following analysis aims at assessing the socio-economic resources of the elderly female population from a broad angle, including resources at both the individual and the household levels.

currently in their mid 40s, did not exceed 18.3% and those having reached secondary level or more was estimated at around 24.4%. The radical changes that are occurring over time in the social norms and values, particularly for women, will create a larger group of aging women with improved education and concurrently a larger pool in the work force.

This trend will eventually reduce current illiteracy rates and promote better health outcomes among our future elderly. The close relationship between education and different health outcomes is well established in the literature. People with higher education levels show consistently lower proportions of morbidity and disability and better chances of recovery after illness and improved survival.

Figure 2. Percent Distribution of Elderly Women Aged 60 and Above by Educational Attainment.



2. Labour Force Participation and Pension Plans

Economic activity is bound to decline with aging and to be most affected by age at retirement in a given country. For this reason, age was grouped into three categories (60-64, 65-74 and 75 and above). Table 5 shows the distribution of labor force participation across the different age groups. Among the elderly female population, labor force participation was low (6.7%) even before reaching retirement age (64 years). This proportion decreased with increasing age to reach 0.9% among the older generation (75 years or more). On the other hand, home-based workers accounted for a

Table 5. Distribution of Elderly Women by Working Status and Age, PHS, 1996.

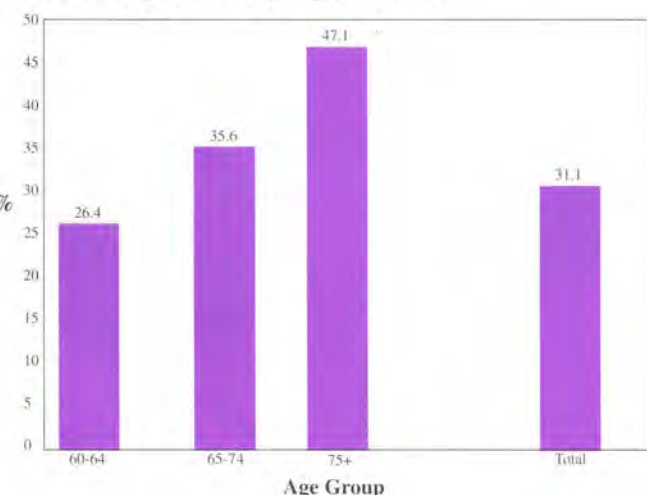
Working Status	60-64		65-74		75+		Total	
	N	%	N	%	N	%	N	%
Housewife	48,373	90.0	68,087	92.3	31,452	90.5	147,912	91.2
Working	3,603	6.7	2,036	2.8	327	0.9	5,966	3.7
Home Based Worker	512	1.0	558	0.8	77	0.2	1,147	0.7
Retired	298	0.6	591	0.8	311	0.9	1,200	0.7
Others *	970	1.7	2,458	3.3	2,570	7.5	5,998	3.7
Total	53,756	100.0	73,730	100.0	34,737	100.0	162,223	100.0

* Others include unemployed and self-sufficient

small proportion (0.7%). Despite their small number, they represent major supporters in the household with the most disadvantageous social security benefits. The majority of working elderly females were employees (68.9%) rather than self-employed (31.1%). However, self-employment increased significantly with age (Figure 3).

In fact, no matter how old the woman was, her principal occupation remained that of a housewife (around 91%). This finding is similar to that noted in the United States and most other countries, whereby elderly women in general encounter low rates of work force participation and seek their primary activity as housekeeping to the extent that less than 1% of elderly women perceived themselves as 'retired'. Though not assessed in the data at hand, the role of caregiving played by the majority of elderly females need not be overlooked. Aging women are more likely to care for their older husbands. They act, as well, as caregivers for their much older frail parents and quite often for their younger grandchildren. The principal occupations in which the economically active elderly women were engaged in are presented in figure 4. For self-employed women, the most dominant types were vending (38%), agriculture and skilled work (24%), and handicraft and technical work (25%). In the case of women who were

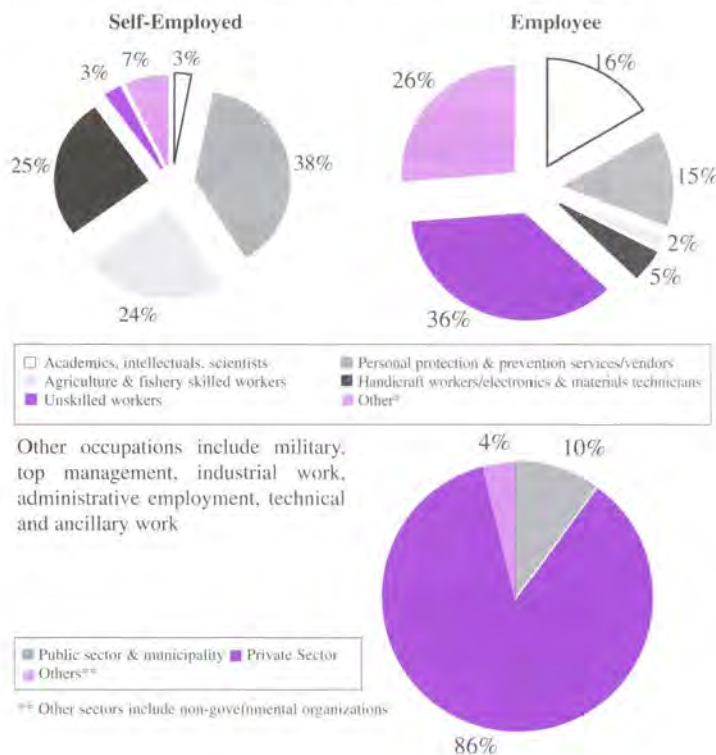
Figure 3. Percentage of Self-Employment Among Economically Active Elderly Women by Age, PHS, 1996.



employees at the time of the survey — whether in the public or private sector— the most dominating type of work was that of unskilled labor (36%). Figure 4 also displays the percent distribution of economically active elderly women by sector of principal occupation. Engagement in the private sector (86%) dominated significantly that of the public (10%).

In Lebanon, there is no clear-cut government policy regarding the welfare of the elderly. Hence, the sector of economic activity interacts with the type of occupation to determine old age security for both elderly men and women. For example, while employment imposes an age at retirement, self-employed

Figure 4. Percent Distribution of Economically Active Elderly Women by Type of Occupation and Sector of Activity, PHS, 1996.



elderly are not given any sort of health insurance or indemnity. In addition, among employees there is a great variation in health coverage and other old-age pension plans. Civil servants and government employees enjoy a wider range of privileges than those covered by the National Social Security Fund (NSSF). Upon retirement, the elderly, who was once covered by the NSSF during his/her productive years, is deprived of any health insurance coverage just at the time when health and

social needs start to escalate. Shortcomings of the NSSF are reflected adversely on the retired elderly, full-time housewives and old widows.

3. Household Characteristics: Assets and Resources

Household members share common characteristics that shape their overall well being. Most important of these are 'housing conditions' and 'material possessions'. Such characteristics shed some light on the conditions under which the elderly lives and, hence, may provide a proxy measure for the social and economic standards of his/her living conditions.

Results of the secondary analysis of the PHS data showed that most elderly women resided within apartments in buildings (around 77%), although a significant proportion (23%), mostly in the rural areas, lived in independent housing units (table 6). The residence was entirely owned by the household members among a large proportion of elderly women (66.7%).

Personal space for elderly people is very crucial for their general well-being, and this is conceptualized at the micro level in terms of crowding index (household density or the number of

Table 7. Distribution of Elderly Women by Possession of Real Estate, PHS, 1996.

Real Estate	Age (Years)				Total	
	60-74		75+		N	%
Provides Primary Income	9,582	7.5	2,590	7.5	12,172	7.5
Provides Secondary Income	13,464	10.6	3,939	11.3	17,403	10.7
Does not Generate any Income	33,732	26.4	9,100	26.2	42,832	26.4
No Real Estate	70,709	55.5	19,109	55.0	89,818	55.4
Total	127,487	100.0	34,738	100.0	162,225	100.0

persons per room). Crowding has many social, psychological and health implications among the elderly. The crowding index was calculated at the household level by dividing the number of household members over the number of rooms in the house, excluding bathrooms and kitchen. Despite the advantageous setting of living in an independent residence and owning entirely the housing unit, the crowding index exceeded 1 person per room in around 40% of our elderly population (table 6). In addition, the mean crowding index increased slightly with age from a value of 1.16 among those aged 60 to 74 years to 1.20 among those who were 75 years old or more. The dynamics of change in household structure could not be assessed from the PHS data, and space allocation for the elderly within the house

Table 6. Distribution of Elderly Women by Type and Ownership of Residence and Crowding Index, PHS, 1996.

Type of Residence	Age (Years)				Total	
	60-74		75+		N	%
Independent Residence	27,024	21.2	9,617	27.6	36,641	22.6
Apartment in a Building	100,193	78.6	25,059	72.3	125,252	77.2
Shacks/Other	359	0.2	61	0.2	330	0.2
Ownership of Residence						
Entirely Owned	84,427	66.2	23,780	68.5	108,207	66.7
Partially Owned	3,272	2.6	1,220	3.5	4,492	2.8
Rented	31,692	24.9	7,017	20.2	38,709	23.9
Other	8,095	6.3	2,720	7.8	10,815	6.7
Crowding Index						
<1 Person/Room	53,070	44.2	15,336	45.5	68,406	43.2
1 Person/Room	21,199	17.9	6,198	18.1	27,397	16.9
>1 Person/Room	52,947	37.9	13,142	36.4	66,089	40.8
Mean (SD)	1,16	(0.84)	1,20	(0.96)	1,18	(0.90)
Total*	127,424	100.0	34,737	100.0	162,223	100.0

* Totals for the separate variables do not necessarily add to the presented total due to missing values in the corresponding variable, in particular, for the number of rooms.

remains a more important measure for the status and autonomy of the elderly than the direct objective measure of household density or crowding. A significant proportion (45%) of the elderly women lived in households where members reported possession of one type or another of real estate. However, only a small proportion (less than 10%) relied on it as a primary source of income (Table 7).

B. Social and Living Arrangements

The probability of an elderly person being poor is a function of his/her living arrangement as well as gender. Older women are found to be twice as likely to be poor as are aged men. For instance, in the year 1990, the proportion of elderly women in the United States (aged 65 year or more) who were living below the poverty line was 15.4% in comparison to 7.6% for aged men (Choudhury and Leonesio, 1997). Those living with their own families are much less vulnerable than those living in non-family households and women are usually at a disadvantage in this respect. In the developed world, a significant

proportion of people over 60 years of age lives on their own. However, in developing countries, and based on studies conducted in the Western Pacific Region, a high proportion of the elderly remains an integral part of the family structure and more than half of them live with their children and in households that consist of five people or more (Andrews, 1986).

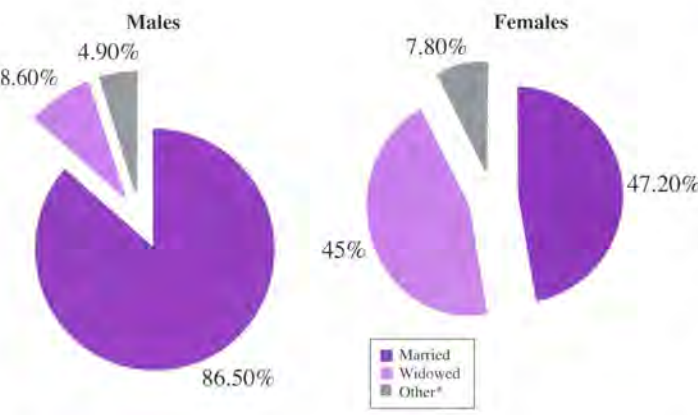
Social support to the elderly person can be informal and formal. The informal type of support stems from personal assistance and care given by family members and this form continues to be the most dominant in most countries. Formal support services are provided by public or private institutions and organizations. The data at hand provide proxy information on informal support only. For this, three measures were utilized: marital status, household size and family structure. The distributions of these characteristics are presented in table 8 with age being grouped into 5-year age categories.

1. Marital Status

Marital status has often been associated with a variety of health outcomes among elderly people and studies on this subject date back to the 1800s. The presence of a spouse is one of the most important sources of social and economic support that determines the well being of an elderly person. Marriage has a protective effect and it tends to increase longevity, improve health status, and enhance preventive health care utilization (Goldman et al., 1995).

At the time of the survey, almost half of the elderly women (around 47%) were married, while a significant proportion (45%) were widowed. The most striking finding was the trend in widowhood with age (table 8). The proportion of widowed women increased significantly with increasing age to reach a level as high as 77.0% in the older age category (80 years or more). These percentages are better appreciated when compared with the marital status of elderly men (Figure 5).

Figure 5. Distribution of Elderly Men and Women by Marital Status, PHS, 1996.



*Other include never married, divorced and separated

The proportion of elderly men who were married in 1996 (86.5%) was around twice as that of elderly women (47.2%). Elderly men tend to marry and remarry more often than women do in case of widowhood and divorce. In general, widowed individuals are considerably more likely to be poor than married couples and unmarried older women experience higher poverty rates than do unmarried older men (Choudhury & Leonesio, 1997).

2. Household Size

Although elderly women are usually themselves the primary caregivers within the household, their potential care giving capacities are significantly reduced with aging. Traditionally, families in Lebanon are the primary source of care for the elderly. Cultural and social values still protect the majority of elderly males and females. Nevertheless, provision of care to the frail elderly by other family members, especially daughters, is faced by other competing role responsibilities as more women are joining the work force. Thus, the number of people residing in the household is not sufficient to indicate the quality of care provided to the dependent elderly woman (Kelman et al, 1994). Nevertheless, living alone is without doubt the most disadvantaged living arrangement with the least social support avenues. As shown in Table 8, 12.7% of elderly women were living alone at the time of the PHS survey in 1996. The probability of living alone increased at a fast rate with aging to reach a level of 22.4% in the very old age category (i.e. 80 years or more). Isolated females were more likely to be concentrated in the Nabatieh Governorate, to be working in the private sector and less likely to rely on real estate for income than other females (data not shown).

The relatively high poverty rates for elderly women living on their own have been recently explored in the literature. It is noted that shared living arrangements provide an important source of economic support, particularly for aged widows (Waehrer & Crystal, 1995). However, the data at hand do not give a clear idea of the potential resources available to these elderly Lebanese women living alone, their living conditions or health status. Future in-depth studies should focus on this sub-group in Lebanon.

3. Family Structure

With aging, families tend to change in structure from nuclear to extended ones. This movement was pronounced among the elderly female population. In fact, while only 18.1% of women aged 60 to 64 years lived in extended households, 39.8% of the older women (80 years and over) lived within this family structure. Polynuclear families that consisted of more than one nuclear family, with parents being mostly siblings, accounted for less than 6% of the population and this proportion was relatively stable across the different age groups. Household types that were grouped as 'others' were mostly of the 'single' nature or female-headed households where the elderly woman was either living on her own or with non-relative others. The proportion living in such a structure increased significantly with aging from 9.9% among the young olds (60-64 years) to around 27% among the very old (80 years and over).

Table 8. Distribution of Elderly Women by Marital Status, Household Size and Family Structure Stratified by Age, PHS, 1996.

Marital Status	Age (Years)					Total
	60-64	65-69	70-74	75-79	80+	
	%	%	%	%	%	%
Single	7.1	7.5	6.3	6.3	5.7	6.8
Married	63.2	51.6	40.5	30.7	16.8	47.2
Widowed	28.4	39.6	52.3	62.4	77.0	45.0
Other*	1.3	1.3	1.0	0.6	0.5	1.1
Household Size						
One (Living Alone)	6.6	11.0	16.6	18.7	22.4	12.7
Two	19.4	23.2	24.5	25.0	21.1	22.1
Three to Four	35.7	33.3	27.2	24.9	20.3	30.6
Five or More	38.4	32.9	32.4	32.2	36.9	35.1
Family Structure						
Nuclear	66.1	56.3	47.2	40.2	27.0	52.8
Extended	18.1	23.3	28.3	31.6	39.8	25.3
Polynuclear	6.0	5.6	5.7	5.8	6.3	5.8
Other**	9.9	14.8	18.9	22.4	26.9	16.1
Total N	53,756	42,652	31,079	15,126	19,611	162,223
Total %	100.0	100.0	100.0	100.0	100.0	100.0

* Includes the divorced and separated elderly women
 ** Includes those living alone or with non-relatives

C. Health Status and Needs

The 'demographic' transition described earlier is accompanied by changes in the pattern of diseases, the 'epidemiological' transition. The former refers to the declining trends in mortality and fertility rates accompanied with an increase in the proportion of elderly population while the latter refers to the secular changes in patterns of health and disease from infectious to chronic degenerative diseases in relation to social, economic and demographic factors.

It is well established that the complex interplay between demographic changes, risk factors and therapeutic interventions is the one that influences morbidity and mortality patterns in a given population (Feachem, 1992). As nations modernise, a decline in fertility immediately translates into a reduction of childhood diseases and deaths as well as a sharp increase in the proportion of elderly. This demographic factor is also responsible for inflating the effects of aging and producing a shift towards non-communicable diseases. Risk factors play an important role in the health and

epidemiological transitions. Changes in the prevalence of exposure to risk factors such as cigarette smoking and diet alter significantly age-specific morbidity and mortality rates. Finally, access to and effectiveness of therapeutic measures influence both the prevalence and case-fatality rates associated with certain communicable illnesses. This will inevitably inflate the burden of chronic degenerative diseases of old age. The two sections below describe causes of morbidity and disability that the elderly females suffer from.

1. Morbidity: 1983-84 and 1992-93

The elderly suffer from a multitude of co-morbid conditions, both infectious and chronic. Because of the deterioration in the inflammatory and immune response with aging, infections in the elderly are a common cause of morbidity and mortality. Nevertheless, the leading causes of morbidity remain chronic in nature, mainly heart diseases, hypertension, diabetes, arthritis, hearing and visual impairments. Even though morbidity is often non-fatal, it is usually associated with disabilities and it detracts greatly from comfort and jeopardizes the quality of life among the elderly.

Table 9. Prevalence (per cent) of Selected Chronic Conditions Among Women Aged 60 Years and Over, Beirut 1983-84 and 1992-93.

Age (Years)	Year			
	1983-84*		1992-93**	
Condition (%)	60-69	70+	60-69	70+
Hypertension	31.0	35.1	29.5	29.9
Heart Diseases	14.2	25.8	16.4	24.4
Arthritis	16.5	14.4	19.7	20.8
Diabetes	15.8	15.5	17.8	14.2
Back Pain	12.3	8.9	18.0	16.2
Hypercholesterolemia	12.0	7.0	15.3	11.7
Cataract	3.5	10.7	4.9	9.6
Glaucoma	0.9	1.5	1.6	4.6
Ulcer	4.1	3.7	4.6	3.0
Kidney Problems	6.3	1.8	6.0	4.6
Asthma	2.2	2.2	3.3	3.0
Anemia	3.2	1.5	4.7	7.6
Mental Problems	1.3	0.0	1.1	1.5
Cancer	0.0	1.1	0.0	0.5

Sources: *Khalat, M. & Armenian, H., 1984
 ** Nuwayhid, I., Sibai, A., Adib, S. & Shaar, K.H., 1997

In Lebanon, no cause-specific morbidity data are available on a large scale. However, the two surveys that were conducted in Beirut by the Faculty of Health Sciences (FHS), American University of Beirut, during the years 1983-84 and 1992-93 shed some light on the health status and needs of its aging population (Khlat & Armenian, 1984; Nuwayhid et al, 1997). The findings of these two surveys are compiled for the older age groups in table 9. Hypertension and heart diseases remain the leading causes of morbidity among elderly women in both the 1983-84 and 1992-93 surveys. Arthritis accounted also for a significant burden of morbidity in 1984 and its prevalence was more pronounced in 1992-93 among this subgroup. Other diseases of importance included diabetes, back pain and hypercholesterolemia followed by cataract, glaucoma, ulcer and kidney problems. It is worth noting that the two studies were not directed specifically towards the elderly population, and are limited by the small sample size of old age groups as well as reporting biases. A study directed specifically towards the elderly which includes clinical assessment and measurements is needed for a better appraisal of the health



Picture Credit: Sunshine Cards

status and needs of our elderly population.

2. Disability: 1983-84, 1992-93 and 1996

The objective of health and social policies in old age is not simply to extend the life span but also its quality and the goal remains not to add years to life as much as to add life to years. Thus, an understanding of the determinants of living free of disability (or healthy life expectancy as it is generally termed) is essential.

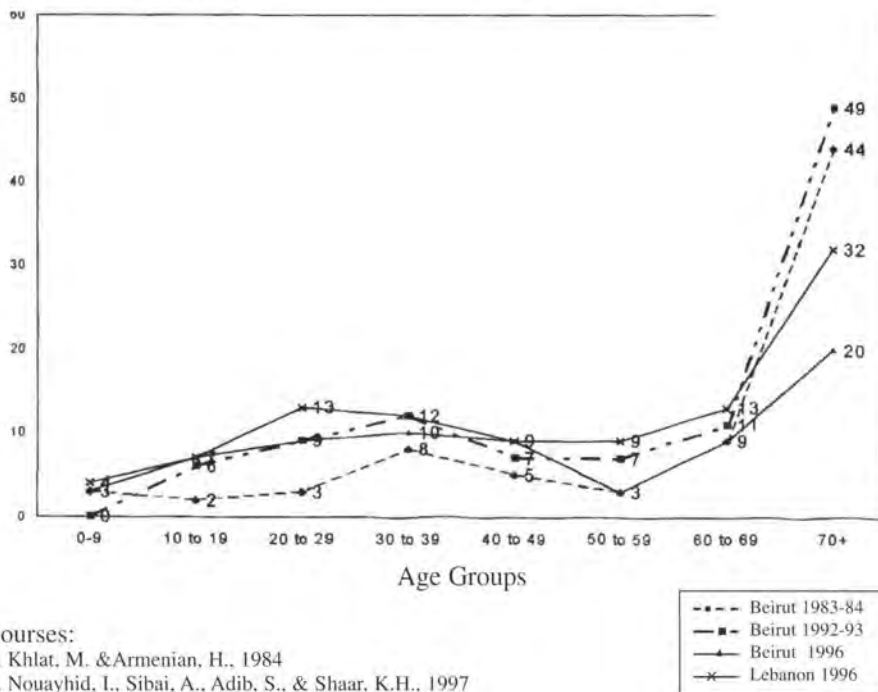
In assessing the burden of disease, disability should be included in addition to mortality and morbidity. Disability among the elderly is best measured by activities of daily living (ADL) and Instrumental ADL. Studies that use these measures are currently

lacking in Lebanon. Nevertheless, the following analysis utilises the PHS data and the FHS Beirut surveys on disabilities as a proxy measure for ADLs. There is a general belief, however, that all data sources suffer major under reporting biases on disability statistics (Sibai, 1999).

The results of the secondary analysis of the PHS data are shown in figures 6 and 7, and comparisons are made with the other two

FHS surveys conducted in Beirut in 1983 and 1993. In Lebanon, as a whole, and according to the PHS data (1996), 3,136 elderly females suffered from one type or another of disability (19 per 1,000). Across all studies, disability rates increased markedly with increasing age, in particular, from 60-69 years to 70 years and above (Figure 6).

Figure 6. Trends in Prevalence of Disability (per 1,000) Among Total Lebanese Women by Age and Over Two Decades: 1983-84¹, 1992-93², and 1996.³



- Sources:
 1. Khlat, M. &Armenian, H., 1984
 2. Nouayhid, I., Sibai, A., Adib, S., & Shaar, K.H., 1997
 3. PHS, 1996

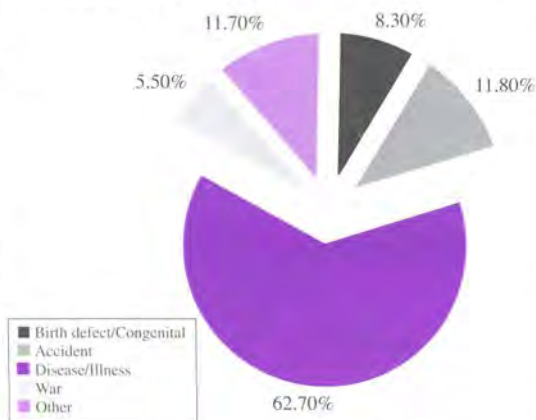
Figure 7 presents the data obtained from the PHS survey regarding the distribution of causes of disability among elderly women. The leading cause of disability was diseases (62.7%), mostly cerebrovascular, seeing and hearing impairments. Such a finding points to the importance of the burden of diseases among this age group and is in accordance with published literature in other parts of the world (Murray & Lopez, 1997a). As pointed out earlier, cardiovascular diseases and their associated co-morbid conditions are the most prevalent diseases among elderly women in Lebanon, and these in turn contribute to disability.

World-wide, it is estimated that these conditions account on average between 9 and 22% of life-years lost due to disability (Murray & Lopez, 1997b). Despite the great scope for prevention, intervention activities in Lebanon lag behind.

VI. A Framework for Action

Although the present article focused on elderly women, much of the features of aging in Lebanon relate to elderly men as well, and in the long run what benefits women will also benefit men. Moreover, even though the factors and characteristics associated with aging women were presented individually, they are inter-related and rarely occur in isolation. Lebanon faces certain issues that render the aging of

Figure 7. Proportionate Distribution (%) of Causes of Disabilities Among Elderly Women, PHS, 1996.



its population rather a complex challenge: inadequacy of data regarding the health and social needs of its growing elderly, lack of aging policies and deficiency of resources. Without an adequate information base, planning and policy recommendations remain spotty and intuitive.

Two types of investigative efforts are needed: firstly, a thorough assessment of present resources including services and activities provided by the government, voluntary organisations and families; and secondly, a thorough assessment of present and projected needs of the elderly in the community

and in organisations (Sibai, 1993). Such data will provide valuable information for health and social policy makers to plan interventions.

Old-age pension plans and health insurance schemes do not have a sufficiently wide coverage to satisfy the needs of our elderly population. Given the relatively low income of older women, strategies must focus on insurance coverage and free access to health care and social services. Social and health security schemes should include self-employed workers, unskilled labourers, full-time housewives, widows as well as the never married elderly women. There is also a need to recognise the role of primary caregivers to elderly frail individuals. Caregiving women need to be supported and given options as part of community-based health care services especially for the disadvantaged and low-income groups.

There is a great diversity among older women, and actions should be tailored to their specific needs. Disadvantaged groups among elderly women include those who are widowed (45%), those who are living alone (12.7%) and those who are disabled (1.9%). Disability and dependency among the elderly may be improved by focusing on the disease itself when present (e.g. prevention, treatment, palliation), the individual (e.g. education, welfare benefits, social support), and the environment (e.g. public transport, shops, entertainment, interior design). Public health medicine, health and social services, local government authorities and other sectors may achieve better health for the ageing populations through concerted rather than fragmented actions (Ebrahim, 1997).

Aging is a continuous process. The patterns of living, exposures and the health of a woman in earlier periods of her life determine her health status and needs in later stages (Bonita, 1996). Health and activity in later ages are therefore a summary of the exposures and actions of an individual during the whole life span.



Picture Credit: Fikrun Wa Fann (68)



Picture Credit: Fikrun Wa Fann (68)

Recently, the WHO Expert Committee on Aging in its meeting in Geneva in October 1998 endorsed that a life course perspective for active aging is needed. This looks at the cumulative health benefits, including factors associated with living conditions and social roles, that will accrue to aging individuals through improvement of health at all ages.

The United Nations is marking 1999 as the 'International Year of Older Persons', with the theme 'Towards a Society for all Ages'. The WHO has also chosen as a theme for the World Health Day this year 'Active Aging Makes the Difference'. This recognizes that active aging through a life course perspective should be a key component of all development programmes. Challenges remain and struggles for successful aging should continue.

This article is based, in part, on a report presented to the Ministry of Social Affairs entitled 'The Elderly in Lebanon: Their Demographic, Socio-economic, Social and Health Aspects', (Sibai, 1998).

REFERENCES

- Andrews G. R. (1988). "Health and Ageing in the Developing World", *Ciba Foundation Symposium*; vol. 134, pp. 17-37.
- Bonita R (1996). *Women, Ageing and Health - Achieving Health across the Life Span*. Global Commission on Women's Health - Ageing and Health programme. WHO, Geneva.
- Choudhury S. & Leonesio M. (1997). *Life-Cycle Aspects of Poverty among Older Women*, Soc. Sec. Bull., vol. 60(2), pp. 17-36.

- Crystal S., Shea D. & Krishnaswani S. (1992). "Educational Attainment, Occupational History and Stratification: Determinants of Later-Life Economic Outcomes", *Journal of Gerontology: Social Sciences*, vol. 47, No. 5, S213-S221.
- De Beauvoir S. (1972). *Old Age*. Penguin Books.
- Ebrahim S. (1997). *Public Health Implications of Ageing, Epidemiol & Community Health*, vol. 51, pp. 469-472.
- Feachem RGA, Phillips MA, Bulatao RA. "Introducing Adult Health". In Feachem RGA, Kjellstrom T, Murray CJL, Over M, Phillips MA, eds. *The Health of Adults in the Developing World*. London: Oxford University Press for the World Bank 1992; pp. 1-22.
- Goldman N., Krenman S. & Weinstein R. (1995). "Marital Status and Health among the Elderly", *Soc. Sci. Med.* vol. 46, No. 2, pp. 1717-30.
- Kelman H.R., Thomas C. & Tanaka J. S. (1994). "Longitudinal Patterns of Formal and Informal Social Support in an Urban Elderly Population", *Soc. Sci. Med.*, vol. 38, No. 7, pp. 905-914.
- Khlal M. & Armenian H. (1984). "Morbidity and Risk Factors". In Zurayk H. and Armenian H. eds. *Beirut 1984: A population and Health Profile*, American University of Beirut, pp. 91-100.
- Ministry of Social Affairs (1996). "Population and Housing Survey" (raw data on CD-ROM).
- Murray C.J.L. & Lopez A. D. (1997a). *Alternative Projections of Mortality and Disability by Cause 1990-2020: Global Burden of Disease Study*, *Lancet*; vol. 349, pp. 1498-504.
- Murray C.J.L. & Lopez A. D. (1997b). *Global Mortality, Disability, and the Contribution of Risk Factors: Global Burden of Disease Study*, *Lancet*; vol. 349, pp. 1436-42.
- Nuwayhid I., Sibai A. M., Adib S. & Shaar K. H. (1997). "Morbidity, Mortality & Risk Factors". In Deeb M, eds. *Beirut: A Health Profile 1984-1994*. American University of Beirut.
- Sibai A. M. (1993). "The Elderly in Lebanon: Health and Social Welfare", *ESCWA/SD/1993/WG.1/18*.
- Sibai A. M. (1998). "The Elderly in Lebanon: Their Demographic, Socio-economic, Social and Health Aspects". American University of Beirut, Faculty of Health Sciences. Report presented to the Ministry of Social Affairs in Lebanon /Policies and Strategies Sub-Programme.
- Sibai A. M., Sen K. (1999). "A Proposal to Assess the Impact of Traumatic Injury-Related Disability on Families and the State among Adults in Lebanon and Palestine (1996-1999)". Project NO: IC 18 CT 96 0036 /EEC.
- SPSS (Statistical Package for Social Sciences), ver. 7.5.
- Tout K. (1989). "What is Ageing?" In: Tout Ken, *Ageing in Developing Countries*. Oxford University Press for Help Age International, pp. 5-16.
- UNDP (1996). "Rapport Mondial sur le Developpement Humain 1996".
- "United Nations Economic and Social Commission for Western Asia. Demographic and Related Socioeconomic Data Sheets for Countries of the Economic and Social Commission for Western Asia as Assessed In 1986". United Nations, New York, 1987; No. 5, pp. 122-139.
- United Nations (1987). "Economic and Social Commission for Western Asia. Demographic and Related Socioeconomic Data Sheets for Countries of the Economic and Social Commission for Western Asia as Assessed in 1986". United Nations, New York, No. 5, pp. 122-139.
- Waehrer K. & Crystal S. (1995). "The Impact of Coresidence on Economic Well-Being of Elderly Widows", *Journal of Gerontology: Social Sciences*, vol. 50B (4), S258.
- World Health Organization (1994). "World Health Statistics Annual", pp. A1-A16.
- World Health Organization (1995). "Epidemiology and Prevention of Cardiovascular Diseases in Elderly People". Report of a WHO study group, Geneva 1995. Technical Report Series, 853.