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Short report

Health care delivery systems for older adults: How do the Netherlands and Lebanon compare?

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Abstract

Older individuals are given low priority compared to other age groups in many societies and geriatric care is not well-developed in many countries. With the global trend in population aging, the increasing number of older adults can be expected to challenge already-fragile health care facilities. Health care systems vary greatly from one country to another. Based on common research interests and through an educational exchange program between the University of Groningen (the Netherlands) and the American University of Beirut (Lebanon), a project was started to compare the Dutch and Lebanese health care delivery systems for older individuals, demonstrate their strengths and pitfalls, and draw from their resemblance and differences pivotal conclusions leading to positive change. In particular we examined the nursing homes, geriatric medicine and insurance coverage, and pension plans of both countries.

Keywords: Older adults; Health care systems; Nursing homes; The Netherlands; Lebanon

> …'towards a society for all ages,' a society that does not caricature older persons as pensioners but sees them as both agents and beneficiaries of development.
> General Kofi Annan, 1998

Introduction

Worldwide, the percentage of older adults in the population is increasing. Although this trend is more obvious in the developed world, demographic aging has recently started to proceed rapidly in developing regions. Since 1980, a higher percentage of older people are living in developing compared to developed regions (Lloyd-Sherlock, 2000). Today, about two-thirds of all older people live in the developing world; by 2025, it will be 75% (World Health Organization, 2007). In many countries, care for older adults is still most often limited to medical care with little attention given to their well-being, mental health, pension plans, and residential choices.

This article will briefly describe the systems of geriatric care in the Netherlands and Lebanon and draw a comparison between the two. Challenges and obstacles to optimal care for older individuals in both countries are presented.

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The Netherlands is looked upon as a pioneer in elderly care delivery, being one of the first countries to develop and implement complex, sustainable, and for the most part successful programs of care for older individuals. For that reason, it was chosen in the comparison with Lebanon, a developing country where care for older individuals is lagging behind and has not been addressed yet as a separate entity on the national health care agenda and social security and pension plans.

Demographics of the Netherlands and Lebanon

The World Health Organization has traditionally used the age of 65 and above to designate the older adults; this definition will be adopted in this article. Demographics in the Netherlands and Lebanon differ (see Table 1). In the next decade, the percentage of older adults is projected to increase to 17.5% and 9.95% in the Netherlands and Lebanon, respectively (United Nations Development Programme, 2005; Sibai, Sen, Baydoun, & Saxena, 2004).

Choices in health care for older adults in the Netherlands

In the Netherlands, the majority of older adults live in the community, either independently or with the help of home care services; 7–8% of Dutch older people live in institutions. (Hoek, Penninx, Ligthart, & Ribbe, 2000; Schols, Crebolder, & van Weel, 2004). Community settings are the preference in the Netherlands. When additional care, such as chronic medical attention, is needed, older individuals most commonly opt for living in residential or nursing homes. Van Gameren and Wottiez (2005) described the different levels of care in the Netherlands. Among the home care facilities, care includes domestic help, assistance with activities of daily living (ADL), nursing care, social support, and day care. In institutions, temporary care (e.g. rehabilitation), residential care and nursing home care can be distinguished. Allocation of resources is based on needs assessment and organized through agencies (Centraal Indicatieorgaan Zorg, CIZ; Van Gameren & Wottiez, 2005).

In the Netherlands, nursing homes provide care for disabled residents that need continuous care while the older adults in residential homes can do most of their ADLs independently. There are 1370 residential homes (110,000 beds) and 330 nursing homes (58,000 beds). When residents need acute medical care, they may be transferred to a hospital (Schols et al., 2004). The most frequent reasons for admission to a nursing home are dementia and cardiovascular problems (Schols & Wierik, 1993).

Table 1
Country health indicators of the Netherlands and Lebanon

	The Netherlands	Lebanon
Human Development Index[a]	0.943	0.759
Population (million)[a]		
Total, 1975	13.7	2.7
Total, 2003	16.1	3.5
Total, 2015	16.8	4.0
Age < 15, 2003	18.4%	29.5%
Age < 15, 2015	16.4%	24.4%
Age > 64, 2003	11.9%	5.9%
Age > 64, 2015	17.5%	7.7%
Life expectancy at birth (years)[a]	78.3	71.9
Total fertility rate (births/woman)[a]		
1970–1975	2.1	4.8
2000–2005	1.66	1.92
Adult literacy rate[a]	99%	86.5%
Health expenditure[a,b,c]		
• Total expenditure on health as % of GDP	8.8%	11.5%
Public	5.8%	3.5%
Private	3%	8.0%
• Per capita total expenditure on health	$ 2298	$ 568
• General government expenditure on health as % of total general government expenditure	12.2%	9.1%
Physicians per 100,000[a]	329	325
Number of Geriatricians[d,e]	122	7
Elderly living independently[f]	93%	98.6%
Number of nursing homes[f]	330	33
Number of residential homes[f,g]	1370 (110,000beds)	9 (1106 beds)

[a]United Nations Development Program. Human Development report, 2005.
[b]World Health Organization. National Health accounts, Lebanon, 2006.
[c]World Health Organization. National Health accounts, The Netherlands, 2006.
[d]Hansen, van der Velden, & Hingstman, 2005.
[e]Abyad, 2001.
[f]Bou Harb, 2005.
[g]Schols, Crebolder, & van Weel, 2004.

Nursing homes in the Netherlands

The need for nursing homes in the Netherlands stemmed from demographic changes combined with the need to decrease the financial burden of long-term hospitalization in cases when an older individual requires simple assistance rather than specialized medical care. The first nursing home was established in 1929. In 1968, nursing home care boomed as the Exceptional Medical Expenses Act (Algemene Wet Bijzondere Ziektekosten, AWBZ) was implemented (Hoek et al., 2000). This act stipulated the establishment of a unique insurance system, obligatory for all Dutch citizens. It took over managing long-term care and costs in nursing homes. The number of nursing home beds doubled and the quality of staff and facilities improved considerably (Schols & Wierik, 1993; SIVIS, 1999). In addition, since 1996 the Dutch Quality Act was implemented, enforcing staff qualification and reviewing national policies related to the delivery of care in the nursing homes. An annual report is sent to the government and nursing homes are visited by the Health Care Inspectorate on a regular basis. The Dutch Quality Act is analogous to the Resident Assessment Impairment used in Canada, Sweden, and the USA. (Schols et al., 2004; Achterberg et al., 2001).

Geriatric medicine in the Netherlands

In the beginning, nursing homes in the Netherlands recruited staff on demand. Because of the rapid development of nursing home care, it became clear that trained nursing home physicians were needed. Nursing home medicine was established as a medical specialty and nursing homes started to recruit their own specialized medical and nursing staff (Hoek, Ribbe, Hertogh, & van der Vleuten, 2003).

In the Netherlands, geriatric medicine encompasses four specialties: clinical geriatrics, nursing home medicine, social geriatrics, and geriatric psychiatry (Hoek et al., 2000). There is a continuum of care starting with the family doctor, who is the first contact for older adults living in the community, the nursing home physician who cares for them in the nursing homes, and the geriatrician who is responsible for care of adults in the hospital (Schols & de Veer, 2005). There are currently 8408 family doctors, 1300 nursing home physicians, and around 120 clinical geriatricians (Hansen, van der Velden, & Hingstman, 2005; Kenens & Hingstman, 2005; Schols et al., 2004). An overview of the health care system for older adults in the Netherlands is shown in Fig. 1(A). All individuals are registered with a family doctor, who plays the role of a gatekeeper (Hoek et al., 2000). The patient consults, unless it is an emergency, with a primary care physician. Then he or she is hospitalized if needed (Fig. 1(A), steps 1–3). At the time of discharge from a hospital, the assessment center can evaluate the patient's situation (step 4) and decide for home care (step 6), admission to a residential home (step 7), or nursing home care (step 8). In the Netherlands, family members may help in the care of older adults (step 9). Often, additional institutional care is needed, especially if the individual becomes dependent.

The Dutch health care system has supported and encouraged efficient communication between all parties despite the time and geographical

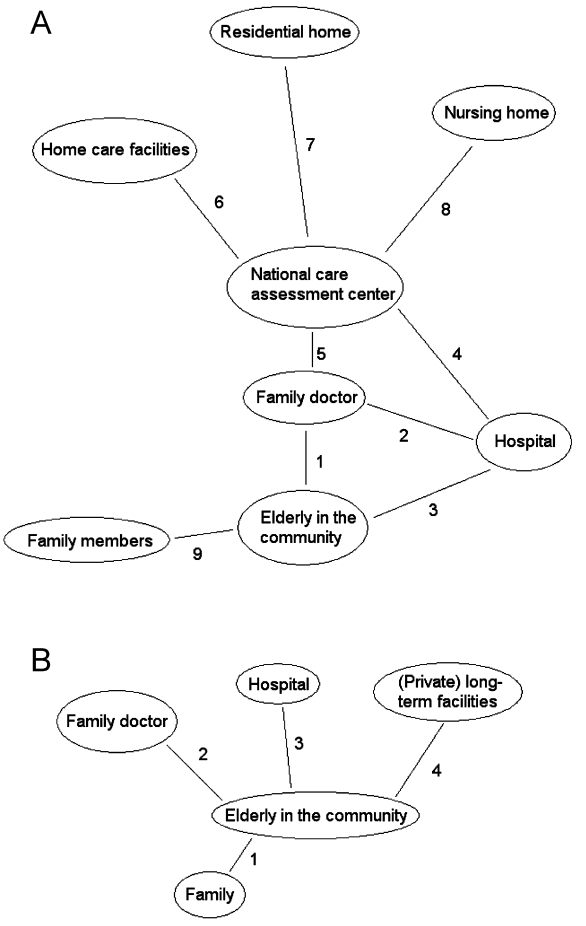

Fig. 1. Structure of health care for elderly in the Netherlands (A) and Lebanon (B).

constraints resulting from the movement of an elderly person from one place to another (Schols & de Veer, 2005).

Dutch insurance coverage and pension plans

The Netherlands has a social security system, divided into long-term and short-term care, each controlled by different laws. Up until 2006, short-term care, which covers primary care, acute care, and specialized care in hospitals, was covered by the Social Health Insurance Act (Ziekenfondswet, ZFW), and some private insurances (Kümpers, Mur, Hardy, van Raak, & Maarse, 2006). Recently, ZFW was replaced by a compulsory insurance package, with options available for extra packages, offered by insurance companies, providing coverage to citizens (Ministry of Health, Welfare and Sports, The Netherlands, 2006). Long-term care is insured under the AWBZ. This insurance plan covers the cost of home care, residential and nursing home care, and ambulatory psychiatric treatment (Kümpers et al., 2006).

Older adult care in Lebanon

In Lebanon, 99% of the older adults live in their homes, often taken care of by their families. Family ties are much stronger than in the Netherlands. Only severely medically ill and dependent Lebanese older adults, and those without family members or other caregivers, reside in nursing homes (Abyad, 2001). Nevertheless, this will likely change as modern trends render working family members less available to care for their older family members (Abyad, 2001).

An inefficient health care system compounds the perception of age and aging in Lebanon. Lebanon's total expenditures on health constitute 11.5% of GDP (World Health Organization. National Health accounts, Lebanon, 2006). The overall performance of the health care system lags behind other countries, with Lebanon ranking 95th among 191 countries in the world (Ammar & Karam, 2001). Most expenditures on health care are from the private sector (69.9%) (World Health Organization. National Health accounts, Lebanon, 2006) and none are specifically directed towards older adults (Table 1).

Contrary to the Netherlands, where there are different levels of housing care, Lebanon only has two types of facilities: residential homes and long-term placement in nursing homes.

Nursing homes in Lebanon

There are a total of 33 long-term care nursing homes in Lebanon with around 2660 residents (800 males and 1860 females), representing around 1.4% of the total elderly population (Bou Harb, 2005). These nursing homes are distributed in all five governorates (mohafazats) across the country with a concentration in urban areas. There are a total of 1106 beds in residential homes (Alzheimer's Association Lebanon, 2006). Most of the nursing homes have religious denominations. Placement of an older individual in a nursing home is often governed by his/her religious affiliation (Abyad, 2001). Studies have showed that 23–47% of Lebanese nursing home residents have Alzheimer's disease and 73% of residents are partially or totally dependent for ADLs (Chahine, Bijlsma, Hospers, & Chemali, 2007; Bcheraroui, 2006, unpublished data). The equivalent of the Dutch Quality Act does not exist and Lebanon lacks means of enforcing quality control and standardized requirements in nursing homes. Moreover, governmental funding is insufficient.

Community-oriented services and home care, prominent in the Netherlands, are the exception in Lebanon. They include volunteer or costly private services that are paid out-of-pocket. Over the last few years, teams have started to form to attend to this reality (Alzheimer's Association Lebanon, 2006).

Geriatric medicine in Lebanon

Geriatric training for health professionals is minimal. Medical school training does not focus on geriatrics. There are only 7 geriatricians registered in the Lebanese Order of Physicians (Abyad, 2001). Nursing homes are still staffed on an as-needed basis by local physicians, and less commonly by a neurologist or psychiatrist.

The health care structure in Lebanon is outlined in Fig. 1(B). Family members are usually the primary caregivers for older individuals (Fig. 1(B), step 1). Family doctors do not play the role of gatekeepers in the majority of cases. Rather, they address their patients' needs themselves, often at a basic level and without involving or coordinating care with subspecialists (step 2). This often leads to

patients doctor shopping for a second opinion and seeing specialists independently without referral. Many people go directly to the hospital when they experience health problems (step 3). When an older individual suffers from a chronic disease and becomes dependent, he/she may be admitted to a nursing home (step 4). However, for many families a nursing home is often seen as 'the last resort.' Since nursing homes are private, there are no central care assessment agencies, and nursing homes have their own criteria for admission and charting on waiting lists.

While the Ministry of Public Health does set standards of care, there is no agency to reinforce such standards. Contrary to the Netherlands, where the government plays a central role in setting standards of care, supporting communication between physicians, and linking public and private sectors, the Lebanese government is not directly involved in any similar endeavor.

Lebanese insurance coverage and pension plan

Lebanon does not have a uniform old-age/retirement pension plan. Pension plans are largely dependent on history of employment. Government and military employees are covered by old-age pension plans and health insurance, whereas employees in the private sector, covered by National Social Security Fund (NSSF) while they are employed, ironically lose such benefits upon retirement. Obviously, those who were never employed, the majority being women, are not eligible for any type of pension or health care coverage (Sibai et al., 2004). Private insurance in Lebanon is costly and insurance companies refuse coverage to those requesting it initially at above the age of 70. In 2000, the Lebanese Cabinet approved a law providing a window of opportunity for older adults to be covered by the NSSF in return for certain monthly fees. Similarly, the Permanent National Commission on the Elderly (PNCE) was established in 1999 to address the need for a health care and social support systems of care for older adults and ageism. In spite of its altruistic objectives, the commission is marred with political interference, hindering its productivity.

Discussion

Clearly, there are inherent differences in the health care systems, health care financing, and demographics between Lebanon and the Netherlands. Given the lack of recent data and research (particularly from Lebanon) on the various parameters discussed above, the delineation of clear-cut measures allowing for head-to-head statistical comparison of these two countries is not possible. We view this as a limitation to our comparison and may have introduced bias into the conclusions drawn. However, we still believe that the data presented still points strongly to differences between the care of older individuals in the Netherlands and Lebanon. These differences are qualitatively summarized in Table 2. Several factors account for these differences, as follows.

Evident through this comparative study is the lack, in the Lebanese system, of social security programs aimed at securing care for older individuals, in addition to the lack of training programs and misallocations of resources. While the population in the Netherlands is approximately 5 times that of Lebanon, the number of physicians per 100,000 is almost equal in both countries, yet Lebanon has only 7 registered geriatricians. There is no support for geriatric programs in the medical schools, research grants are rarely allocated for geriatric studies, and primary care physicians are not empowered in their role as gatekeepers. Patients see subspecialists without referral, and because primary care physicians are not gate keeping and coordinating care, the patient's medical management often lacks continuity and coordination. In addition, Lebanon lacks the infrastructure necessary to offer the various levels of care available to older individuals in the Netherlands. It may be that extensive levels of care are not best suitable for

Table 2
Comparison of elderly care systems in the Netherlands and Lebanon

	The Netherlands	Lebanon
Home care	+++	+
Welfare services	+++	+
Family care for elderly	+	+++
Geriatric specialists and paraprofessionals	+++	+
Family doctors as gatekeepers	+++	–
Levels of care to address individualized needs	+++	–
Multidisciplinary care	+++	–

+++, Present and adequate; ++, present but not prominent; +, minimally present; –, absent.

Lebanon; feasibility studies and needs assessment are needed to further delineate this point. The active role of family members in caring for older individuals may imply less need for certain levels of care, though given present economic and social situation in Lebanon, which are expected to become more demanding with time, the role of the family in caring for older individuals in Lebanon may change in the future. Given the important role the family takes today in caring for the older adults in Lebanon, programs aimed at supporting family members, offering day care services, respite care, and home health care are crucial. Developing long-term care facilities should come to complement these services instead of replacing them, making use of the strengths in the current Lebanese system.

Finally, the authors urge continuous cooperation between the two countries as it will enhance care of older adults in both systems and allow for a rich exchange of ideas and funding for project implementation. Because Lebanon and the Netherlands differ on a multitude of demographic, social, and governmental levels, the implications of this comparative study are not to imply that the Dutch system should be implemented in Lebanon but rather that successful care systems for older adults do exist and a lot is to be learned from them. Future directions may include the pairing of successful committees and institutions from developed countries' care committees and institutions in developing countries to oversee and carry on optimal care for older adults in both systems.

Conclusion

The Netherlands and Lebanon are both facing an increasing number of elderly individuals. While what works in one country may not be suitable for another, the Netherlands, having instituted a system aiming for optimal elderly care and adopted nursing home medicine as a unique specialty, can serve as an example for developing countries like Lebanon. Of particular benefit to Lebanon would be a financial model similar to that of the Netherlands whereby health care for older adults is government funded.

On the other hand, Lebanon could use the strong family ties as its strength to promote community and home care as a viable alternative to complex nursing home care. In both countries solutions to long waiting lists for nursing home admission and training of specialized professionals are welcomed to accommodate today's demographic reality and meet the needs of the valuable older population.

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