



The Impact of Co-Payments on Individual Access to Long-term Care Services in the United Arab Emirates in Comparison to the Middle East

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Abstract

Over the decades, the delivery of long-term care (LTC) in the Middle East has encountered substantial hurdles due to inadequate resource allocation. As a result, the low-income and uninsured populations have encountered growing challenges in accessing quality healthcare. The objective of this study was to investigate the impact of co-payments or out-of-pocket payments on LTC access in the United Arab Emirates (UAE) in contrast to other Middle East countries. A quantitative secondary research approach was used in the study to collect relevant data on the topic from government reports, academic studies, and international healthcare institutions. The findings indicated that long-term healthcare financing that largely focuses on out-of-pocket payments has substantial negative economic impacts on low-income households. Growing evidence from low income earning countries like Yemen, Syria, the State of Palestine, and Iraq shows evidence of households pushed into deep destitution and impoverishment due to expensive long-term medical expenses. The condition is worsened in families without insurance cover, among the elderly, and loss of household income resulting from chronic health. As such, the existing LTC financing plan in the Middle East largely exposes poor households without insurance cover or government financing or subsidies to substantial financial burden and poverty. In conclusion, there is an urgent need for research into alternative LTC financing strategies for coping with indirect and direct costs of illness to inform better social care policies for poor households in the Middle East.

Keywords: Long term care, Chronic illness, Nursing home, Adult day care, Health care cost

Introduction

Long-term care (LTC) is delivered to persons that can no longer perform daily tasks (1) due to injury, chronic illness, the ageing process, or disability (2). Al-Kandari and Crews (3) point out that LTC entails supervision and guidance to persons that cannot make informed decisions due to cognitive impairments such as identity confusion, dementia, and Alzheimer disease. Therefore, LTC is not only limited to the elderly and ageing persons but can also include children, teenagers (4), and persons from different age groups (5). According to the World Health Organization (WHO), there are over 9.5 million persons that are admitted to skilled nursing facilities or reside in nursing homes across the globe. In the United States, about 3.2 million persons are admitted to LTC facilities annually while in Europe the number of individuals seeking LTC services ranges from 2.7 million to 3.3 million (6,7).

The commonly reported chronic and life-threatening conditions for all ages include hay fever or sinusitis, arthritis, heart disease, and kidney conditions (8,9).

According to the United Nations Population Fund (UNFPA), in addition to normal medical services, most affected persons in the LTC need additional social, personal, or rehabilitative care over a long duration of time (6,10). Despite these epidemiological trends, however, most countries across the Middle East still encounter challenges in LTC management and financing exposing their population to long-term economic and financial hurdles. Yount and Sibai (11) documented that most countries in the Middle East lack LTC benefits for disabling conditions, with the children and the elderly more vulnerable to long-term economic impacts associated with access to care.

The average enrollment rate in terms of public financing ranges from 9% to 17% with Qatar and Kuwait have the highest enrollment (12). In the United Arab Emirates (UAE), enrollment rate stands at 14.8% with most LTC facilities managed through private and public partnerships. The common LTC providers in the UAE include ProVita, Daman, and Amana in line with the Health Authority of



Abu Dhabi (HAAD) policies (9,13). However, persons that require LTC services in the Middle East still face substantial economic challenges since the financing of LTC care is primarily a function of (i) individual financial capabilities, and (ii) the amount of LTC needed. Therefore, this study sought to examine the economic impacts of co-payments or out-of-pocket payments on low-income households' access to LTC programs in the UAE and across the Middle East.

Methods

A quantitative research approach was used in this study where secondary data was collected from the past studies LTC financing in the Middle East, with specific emphasis on the UAE and its neighbouring countries in the region. The search strategies and approaches used to extract relevant data are detailed in this methods section. First, the search strategy used is detailed in the next section.

Search Strategy

The researcher performed a comprehensive search on electronic databases covering both academic and institutional websites. The academic websites consulted included Semantic Scholar, Social Science Abstracts, Science and Humanities Citation Indices, Science Direct, Medline, Google Scholar, and Social Sciences. The institutional websites search for relevant research data included WHO, United Nations Development Program (UNDP), UNFPA and Help Age International, The United Nations Children's Fund (UNICEF), Rand Corporation, FAfo Research Foundation, and the Paraprofessional Healthcare Institute. A range of search terms and keywords were used to search for relevant articles as presented in Table 1 in relation to the economic implications of LTC programs and financing.

The search terms were used in all the academic and institutional websites and for the suitable articles to be identified, they had to contain at least 2 or more keywords in the title or in the abstract. The search was limited to countries in the Middle East and written or published in English between 2008 and 2018.

Exclusion and Inclusion Criteria

The articles were individually examined and explored by the research for abstracts and titles to determine their significance to this project. The inclusion criteria were

limited to:

1. Articles published in the last 10 years and focused on LTC services and financial impacts on the countries in the Middle East.
2. Articles exploring economic impacts of illness whether indirect or direct costs,
3. Coping strategies with financial costs and the impact on social resources such as community support, household support, and government financial support.

The primary exclusion criteria were limited to the elimination of studies that did not focus on LTC financing and economic impact, household spending, and individual costs. In addition, only studies published in English were incorporated into this study. The country restriction was applied to improve comparison and contrasts between the UAE and other regional nations.

Research Limitations

Despite the diverse number of articles extracted from different academic and institutional websites, there are some potential research limitations that might affect the findings of this report. For example, the studies used different methodological approaches and research objectives that may be different from the current aim of this report. As such, there might be some challenges in making comparisons among the studies in terms of quantifying the economic implications of LTC which can either be in terms of indirect costs or direct costs. Indirect costs include loss of productive time among the affected households or ill persons, while direct costs include charges for sought LTC care, cost of medicines, and other health-related financial obligations.

In most studies, there is greater consistency in the methods used to quantify direct costs, but there is no consensus on how indirect costs can be quantified. The variations among studies in terms of direct costs emerge from the recall period which can be 2-weeks or 1-month that is largely used in LTC surveys in home or nursing facilities. In some studies, the direct cost includes economic aspects includes costs related to drugs, diagnostic tests, and consultation. In other studies, the costs include transport to LTC facilities, bed charges, and admission costs. In contrast, the measurement of indirect costs range depending on that loss of total productivity in terms of the number of sick leaves, days off, and loss of productivity as a result of

Table 1. Keywords and Search Terms Used in the Search Process

LTC financing in the UAE	Coping strategies for LTC in the Gulf
Access to LTC, economic impacts	LTC economic impact in the Middle East
Utilization of LTC financing	Poverty and Access to LTC in the Middle East
LTC cover in the Middle East	Social resources for LTC cover in Lebanon
LTC trends and financing in Oman	LTC care in the Middle East
LTC health problems and financing	Chronic conditions funding in Arab nations

premature mortality. Studies also have various definitions on how such indirect costs can be translated and measured in monetary terms including non-remuneration of households, loss in domestic production, income loss, and a decline in average wages. Moreover, the available data is at times presented in different formats such as annual household income, rates, and/or percentages. Therefore, these differences might affect the interpretation of the final results.

Number of Articles Researched from Databases

A total of 152 articles were identified from the identified databases. The researcher eliminated all studies with only abstracts and duplicates and remained with 98 articles. Additionally, the studies were assessed and those that did not meet the inclusion criteria in terms of country and publication language were removed to remain with 37 papers. Based on the date of publication and LTC financing and economic impact, a total of 18 papers were included in the final research and analysis, while 10 articles were used in the evaluation of the formulated research questions. The articles used are summarized in Table 2.

Results

Long-term Care Costs

In the Middle East, financial spending on LTC costs includes resource allocation to nursing homes tasked to providing supportive services and medical care to persons with cognitive impairment and significant functional disabilities. Moreover, the findings reveal that the LTC services also include intermediate care processes to facilities for persons that are not subjected to

continuous nursing needs, but need personal assistance and supervision with daily tasks such as dressing, eating, bathing, and taking medications.

Pavolini and Ranci (15) reported that in the fiscal year (FY) 2015 total spending by Gulf Cooperation Council (GCC) members (both private, public, and out-of-pocket costs) was about \$189 billion, or 7% of all the healthcare budget. The dominant source of LTC funding is from the public sector, followed by out-of-pocket by individuals, communities, or families as shown in Figure 1.

Pavolini and Ranci (15) project that LTC expenditure and financing from all sources will increase from \$189 billion to \$203 billion between 2015 and 2020, and to \$225 billion by the year 2025. In addition, the median yearly costs for the various types of LTC financing in the GCC countries between 2013 and 2015 varied with professional facilities and nurse homes reported being highly expensive in terms of costs of care delivery as shown in Figure 2.

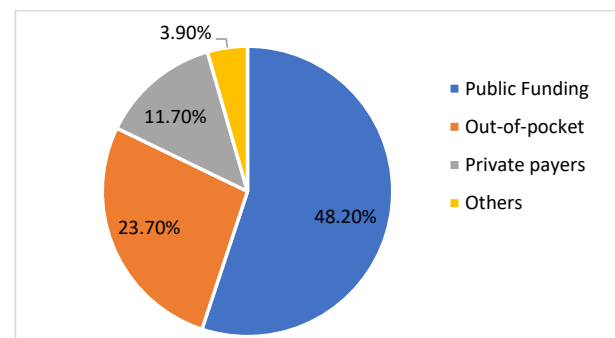


Figure 1. Different Funding Sources for LTC Among the Middle East Countries (15).

Table 2. Studies Used in the Final Research and Analysis in This Report

First Author (Year)	Country	Costs			
		Direct costs		Indirect costs	
		Children	Adults	Children	Adults
El Haddad (2010)	Iran, Qatar	No	Yes	Yes	Yes
Balushi et al (2011)	Oman	Yes	Yes	No	Yes
Margolis & Reed (2011)	UAE	Yes	Yes	Yes	Yes
Al-Kandari & Crews (2014)	Kuwait	Yes	Yes	Yes	No
Behbehani (2014)	Kuwait	No	Yes	No	Yes
Mirkin (2014)	Arab Countries	Yes	Yes	Yes	Yes
Alkhamis et al (2015)	Lebanon	Yes	Yes	Yes	No
Abdul-Asis (2015)	Saudi Arabia	No	Yes	Yes	Yes
Alshaali & Al Jaziri (2015)	UAE	Yes	No	N	Yes
Raad (2015)	GCC	Yes	Yes	Yes	Yes
Kauer (2016)	Gulf Countries	No	Yes	Yes	No
McKinsey & Company (2016)	GCC	Yes	Yes	Yes	Yes
Pavolini & Ranci (2016)	Gulf Countries	Yes	Yes	Yes	Yes
Sibai et al (2016)	Arab Countries	Yes	Yes	Yes	Yes
Barken & Armstrong (2017)	Israel	Yes	Yes	Yes	Yes
Khalife et al (2017)	Lebanon	Yes	No	Yes	Yes
Hussein & Ismail (2017)	Middle East	Yes	Yes	Yes	Yes
Ismail & Hussein (2018)	Middle East	Yes	Yes	No	Yes

GCC=Gulf Cooperation Council.

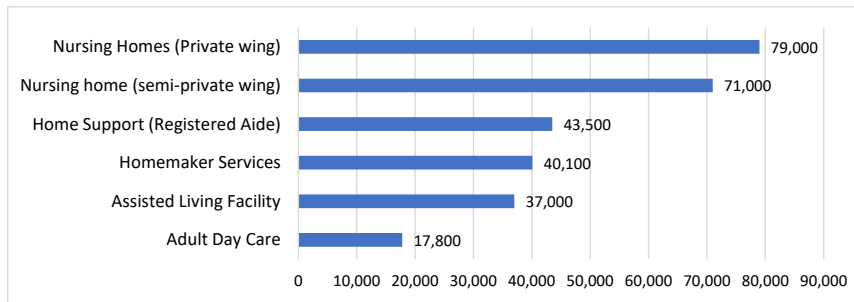


Figure 2. Median Annual Cost for LTC Facilities in '000 of US Dollars (15-17).

Public LTC Funding

In the financial year 2015/2015, the LTC expenditure was about \$127.9 billion or 25% of all the LTC spending. About 44% of these funds were spent on home and community-based facilities, while 56% was directed to institutional LTC which incorporates intermediate care facilities and nursing homes for persons with developmental problems, and mental care facilities. The home and community-based facility funding also covered high vulnerable elderly persons. The percentage allocation of 44% and 55% funding between institutional LTC and home & community-based financing is shown in Figure 3, respectively. The majority of financing in both cases goes to the adults followed by the financing of children and the elderly.

Out-of-Pocket Financing

Across the Middle East, the median annual pay from individual pockets at nursing facilities average 24.1% for children, 31% for the elderly, and 38% for the adults. For private costs in home facilities, the costs average between 55% and 87% across the GCC member countries (2, 4). The costs are higher (85%) in the Gulf countries compared to other Middle East countries such as Yemen, Palestine, and Iran (57%) (3,19,20). However, 1 in 3 persons aged 30 years and above lack the financial resources needed to cover the required LTC costs related to out-of-pocket payments in the event they urgently require LTC services for a prolonged period of time (21-23).

Only about 43% of persons aged 60 years and above (compared to 27% of persons aged 30 and 60 years) noted that they were prepared for LTC costs and charges in the

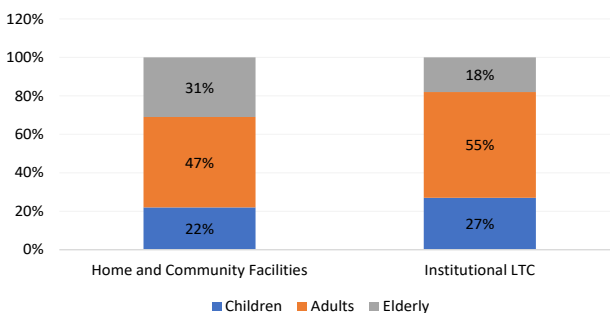


Figure 3. Comparison Between Home and Community Financing and Institutional Financing (18).

event they needed LTC services. Most of the adults that were able to pay for these charges had an annual income of above \$20 000 compared to 43% of persons earning less than \$20 000 who indicate that they were inadequately prepared for LTC services in the event they required them (24). The studies also reveal that the majority (53%) of the participants lack private insurance and do not receive healthcare benefits (25) and specifically in relation to LTC financial support for members of their families (16). Thus, there is a significant number of households in the Middle East, especially in Yemen, Lebanon, Iran, Iraq, and Palestine that lack access to public funded LTC care prompting them to rely on personal or family financial resources (15,26).

Private LTC Insurance

Most cases of private LTC insurance are offered in few countries such as the UAE, Qatar, Bahrain, Saudi Arabia, Israel, Oman, and Turkey. To some limited extent, the private insurance for LTC is also available in Lebanon, Kuwait, and Jordan. However, private LTC insurance is rare in some countries like the State of Palestine, Yemen, Syria, and Iraq. The time-series trends on private LTC insurance in the Middle East by country is shown in Figure 4. The results indicate that the percentage of enrollment in private insurance among the population across the Middle East has been rising since 2010.

Figure 4 shows a rise in the uptake of private insurance as one of the approaches that can be used to finance LTC needs. The UAE shows the highest population coverage in private insurance (69%), followed by Israel (62%), Oman (57%), and Saudi Arabia (51%). In 2010, Ismail and Hussein (29) estimated that about 4 million and 6.5 million persons in the Arab countries owned a private medical insurance policy which reflected 2.3% and 5.4% of the total population in the Middle East and North Africa (30,31). By the end of the year 2016, an estimated 51 million to 54 million persons had access to private insurance on the Middle East representing 13% to 15% of the total population of 371 million people living on the GCC member countries. Therefore, the population cover and access to private insurance cover and LTC financing still remain low across the GCC countries (32,33).

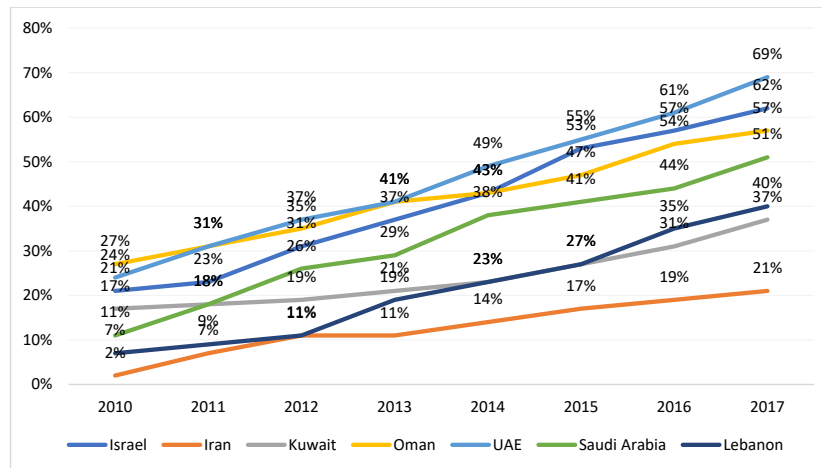


Figure 4. Percentage of the Covered Population for Private Health Insurance in the Middle East (18,27-29).

The enrollment to private LTC cover has shifted although employer-funded LTC market has been on the rise in terms of share in the LTC market (17). Saxena (34) reports that in 2011, the employer-funded LTC accounted for 33% of all-payer activities, compared to less than 2.7% in the 1990s, 7% in the year 2000s, and 47% in the last 5 years. Among the companies or employers that provide LTC funding, public corporations offer the largest private insurance cover in the Middle East (57%) followed by the private corporations (31%), and other business establishments (12%). The annual average cover purchased for individual employees ranged from \$1800 to \$2300 for adults (18-60 years), \$1200-1750 for children (5-18 years), and \$2700-3100 for the elderly aged more than 60 years. The next section presents the findings for the economic implications of the LTC financing in the Middle East countries (30,31).

Economic Implications

The literature assessment shows that the economic implication of LTC financing largely affects households that earn less than \$20,000 per year, than households that earn more than \$20,000 per year. The total costs of care for household illness contributed to more than 10% of the economic costs. For instance, the total household payment for chronic kidney or heart conditions per annum was more than 17% in Yemen, Iraq, and Lebanon (15,17). The entire economic costs for all illness and LTC care accounted for 12.3% of monthly income in Iraq and Kuwait (16,25,26), and about 11% of average income per month in the UAE (24).

Sibai et al (14) reported that interviewed participants indicated that using more than 10% of household finances on LTC and other care needs is a potentially catastrophic process. In this case, the term catastrophic indicates that economic expenditure of more than 10% is critical in that it contributes to cost-cuts of other needs such as food, rent, and clothing and contributes to high debt levels, asset sales, and impoverishment (16). As evident, this value

represents an arbitrary cut-off level and reduced levels of expenditure may result in a catastrophic economic impact on the very poor individuals and the elderly (18,27).

Moreover, the process not only affects the level of spending but also the expenses on medical services that must be paid fully at times of illness when there are out-of-pocket charges that can be costly where there is no insurance coverage. The process comes in line with unexpected needs for expenditure and can be heavily influenced by providers and this can substantially affect the household income of most individuals in the Middle East (18). Considering that the indirect costs are less likely to be quantifiable compared to direct cost, most of the literature indicates that despite the methodological problems there is a high likelihood that indirect costs are often higher than direct costs (18,27-29). Some studies in this report indicated that indirect costs can be 2.3 to 3.9 times higher compared to direct costs (2,4,16,19,20,24-26).

The results in Table 3 presents a summary of the level that the direct cost associated with LTC financing. In most cases, direct costs are largely attributed to medical purchases and care delivery (59%). For example, direct costs accounted for 63% of the LTC care in Oman, 57% in Lebanon (28), 55% in the UAE (23), and 53% in Saudi Arabia (2). Additional direct costs include transport charges to the health facilities, ambulatory services, admissions, and consultation fee. Additionally, some of the costs that are not factored in such as the costs of nutritious supplements for patients and food for the visiting household members may contribute to about 15% of the direct costs.

In addition, the negative direct economic impact can be reported in the form of unofficial charges and fees by care providers who often ask for additional charges, above and over the official charges. All the additional unofficial charges or fees are often paid through out-of-pocket payments and in most cases, they are not covered through public financing or through insurance payments. For example, in Kuwait, unofficial fee charges in public LTC

Table 3. Overview of Direct Costs From Recent Studies

References	Direct Costs as % of Annual Household Income
Behbehani, 2014	2.5
Mirkin, 2014	3.4
Alkhamis et al, 2015	4.4
Abdul-Asis, 2015	4.9
Alshaali & Al Jaziri, 2015	16.0
Raad, 2015	6.2
Kauer, 2016	9.3-11
McKinsey & Company, 2016	6.5

facilities can average between 2% and 7% of the official fee charged. In the case of low-income households, these unofficial charges amount to nearly 49% of the average extra charges on monthly income and 73% in annual household incomes (3,19).

The economic implication of both direct and indirect costs largely vary depending on the type of LTC care provided. One of the greatest impacts of direct and indirect costs stems from hospitalizations and admissions which has been reported to have catastrophic financial impacts on households without government financing or private insurance cover (18,28). In addition, significant economic impacts can also be felt from long-term illness such as HIV and recurrent acute conditions (29). In the Middle East, the cost of treatment for acute cases and HIV cases are estimated to average between 44% and 57%, respectively. For both the household members and the patients, indirect and direct costs tend to be specifically high for long-term terminal conditions (28) and chronic ailments (19).

Additional studies have also explored the gender differences in LTC care and cost implications and reported that the cost of care delivery to female patients is often higher than the cost of care for men. Indirect economic impacts also result due to a loss in productive time, long work hours for women (24), and the high costs of household maintenance initiatives (2, 25). Moreover, there is substantial evidence from the extracted studies that out-of-pocket payments for LTC care impose significant and debilitating impact or burden on poor households than it does on medium- to high-income households across the Middle East (18,27-29). For instance, for higher income families, direct and indirect costs in the UAE range from 2.2% to 3.1% while for the low-income families the economic costs range from 17% to 23.7%. In Lebanon, the costs range between 6.1% to 33.7% for high-income households and low-income households, respectively (18,28). A similar pattern is evident in terms of negative economic implications (29). The next section discusses the coping strategies used by households to address the identified economic impacts.

Coping Strategies

The high direct and indirect costs attributed to LTC

funding through out-of-pocket payments have substantial economic implications for low-income households as discussed in the previous section. To address the potential negative impacts, low-income families adopt a wide range of strategies to address the potential economic impacts associated with LTC financing (2). However, even if it is difficult to have a generalized assessment of all the countries in the Middle East, there are some key strategies that can be identified from these countries (3). Although the most immediate approach is to use savings and available cash, the literature indicates that families also use a range of other alternatives (21-23).

Behbehani (19) points out that some families place emphasis on reducing their household consumption in terms of food, clothing, and travel. Mirkin (20) also reports that another frequent coping strategy is to sell assets which can form a central source of income such as the sale of livestock and land. Alkhamis et al (4) also add that another integral approach to overcome economic implications is the sale of houses and other high-end luxury assets like cars that may be no longer needed to cover LTC costs. In other cases, households also borrow from friends and family members, stressing on the importance of creating strong social and community networks (27,28). In worst situations, the households also ask for loans from banks and other lenders (18,28), while family members can also sell their services to get extra income to cover for the costs incurred in financing LTC needs.

In other cases, indirect costs can be addressed through task re-allocation to family members (intra-house labour), or outside labour services can be sought by hiring an individual to take care of the sick family member (18,28). However, intra-house labour can have negative impacts on family progress mainly in cases where children are taken from school to look at the sick family members (27,29). The process of responding to indirect costs and direct costs of illness can be informed by correlations and associations between the broader community networks and household members. In elaboration, social resources play a fundamental part in accessing loan facilities and labour services for the affected household. Community groups can play a central role in collecting funds, savings, and catering to other costs associated with LTC charges.

The outcome of increased costs for households across

the Middle East is increased cases of ill health and vicious cycles of poverty. Even so, the economic impact and implication of chronic and long-term ailment differ across countries and individual households depending on their social and economic status (35). As such, the socio-economic status affects the individual ability to cope with emerging costs not only for low-income families but also for the middle-income families (24). A growing body of literature shows that in some situations, middle-income families often fall back to poverty when they encounter LTC conditions, especially when the affected family experience income loss due to persistent absence from work and continued ill-health. According to Behbehani (19), this fall back to poverty is called the medical poverty trap and to most families, the chances of moving from poverty reduce once chronic and long-term health conditions are reported.

Discussion

The findings drawn from the current literature reveal that countries that place significant emphasis on out-of-pocket payments contribute to substantial negative impacts on most households (36). Inadequate financial cover and insurance enrollment in the region often leave low and middle-income households that earn less than \$20000 a year at the brink of vicious cycles of ill-health and prolonged poverty due to high direct and indirect costs of LTC budgets (24). The growing literature findings by researchers such as Barken and Armstrong (27) reveal that there is an increasing correlation between poverty and prolonged LTC medical costs. The situation has been specifically linked to instances where there is combined loss of family income and prolonged chronic and acute conditions or recurring ailments (29,37).

Moreover, an increasing argument from the literature is that excess charges and user fee for LTC delivery by care providers do not contribute to filling the resource gap in the Middle East countries (28). Nonetheless, the reform agenda aimed at promoting the uptake of private-for-profit payers have also worsened the costs associated with LTC care as the burden of financing LTC conditions have been placed on households and individuals through the additional out-of-pocket payments (27). The main attention in most countries has shifted to examining and adopting insurance mechanisms, although most of the focus has been aimed at public and private employers with little or no focus on informal sector workers (3,24).

Al-Mazrou et al (5) point out that with an increased focus on health insurance options for employees and families outside the formal sectors, there have been concerns of pooling risks with similar subscribers with an effort of covering the poor households and families through subsidies. Similar claims have also been made by previous researchers including Mirkin (20), Alkhamis et al (4), and Abdul-Asis (2). Therefore, Alshaali and Al Jaziri (24) emphasizes that the possibility of different

healthcare financing channels to become equitable and sustainable to the existing out-of-patient payments needs to be cross-examined with the diverse contexts of different countries across the Middle East, considering that there may be different options available in each country depending on the economic development of each nation. Here, considerations of LTC financing at country level needs to be taken into account to meet the needs of different contexts in the regions (22). Fundamentally, the most crucial approach is taking into account integrated mechanisms that can be adopted to improve cross-subsidies in each country across the entire LTC financing mechanisms from the public, private, and personal or individual resources (21,22).

Margolis and Reed (23) points out that one of the main concerns that emerge from the economic implications of LTC funding is the lack of protection by care providers and the government against indirect costs. The lack of protection largely affects persons in the informal sector than those in the formal sector of employment, since the informal sector workers fall under the minority category in insurance cover (27). In addition, the informal sector workers are less likely to be given paid sick leaves and other forms of social security covers such as disability and injury grants (38). Therefore, the possibilities of covering persons from informal sectors such as the use of community groups and organizations need to be taken into consideration to assess ways of giving protection against indirect costs associated with LTC and other long-term ailments across the Middle East countries (19). While most of the challenges are reported in less stable countries such as Yemen, Iraq, and Syria, the same hurdles are also reported in politically and economically stable countries such as the UAE, Qatar, Israel, and Saudi Arabia (14,21).

In these more economically and politically stable countries, the availability of healthcare financing funded by social health insurance and tax revenues have largely protected most families from potential economic implications of ill-health and prolonged LTC needs (36,39). Moreover, the availability of social welfare nets such as permanent disability grants and temporary sickness benefits have further reduced the LTC burden to some of the families in more stable countries in the Middle East when faced with LTC financial obligations (18,29). However, health sector initiatives that advocate private for-profit mechanisms in LTC cost-covers have also placed more burden on individuals in some countries such as Bahrain and Oman where co-payments among insurance members have been reported to have a negative toll on low income and middle-income households (22,29).

In Kuwait, the co-payments for health service charges increased costs from 8% to 17% of all the expenditures in the early 2000s, with up to a quarter a million citizens reporting difficulties and challenges purchasing or accessing the prescribed medications (3). Similar challenges have also been experienced across European

countries such as Germany and Spain which cancelled co-payments in 2008 due to associated direct costs of care (40,41). In conclusion, there is additional need for research on alternative LTC financing and coping with associated direct and indirect costs, where some of the focus can be aimed at introducing formal welfare initiatives or strengthening community and social connections across the Middle East countries (42,43). Undertaking such a research initiative can potentially contribute to essential social policies that can be used to break the vicious cycles between high co-payment costs, poverty, or prolonged ill-health and associated costs of LTC payments.

The Impact of the Results of Public Health

The results obtained from this study have potential effects on the public health sector in the UAE and across the Middle East. First, the findings reveal that there is an increasing demand for LTC services in the UAE and across the Middle East (18,44). However, with the growing demand for the LTC services, the cost of care has also increased significantly making it difficult for poor households and vulnerable groups to access this care (38,45). As such, the public health system needs to develop new measures to increase access to LTC services for the vulnerable groups through initiatives like covering the out-of-pocket payments through universal healthcare (15,46,47).

Second, the results also reveal challenges in public spending and financing of LTC services especially in low-income countries like Yemen and Iraq. The challenge is coupled with inadequate resource availability at LTC centres across the poor resource countries, further making it difficult for poor households to access essential LTC services in the health care sector (38,48). The public health sector needs to put in place cost-effective measures of managing and controlling against long-term incapacitation through availing timely emergency care services (4,49). Also, there is a need for more funding in public LTC facilities to cover families from low economic backgrounds (2).

Three, there is need by the public health to have in place the co-payment exemption measures for low-income households and vulnerable groups such as the elderly, the children, and the mentally impaired persons (3,50). Increased out-of-pocket payments and lack of insurance cover hinder a large population of low-income earners from accessing essential LTC services, resulting in delayed care and increased mortality rates in low-resource settings (36,51). Access to private facilities is further hindered by costs that are above half the average charges in the public health sector. Therefore, the public sector needs to develop cost-effective LTC care and service delivery and also initiate preventive approaches in mitigating against unnecessary resource utilization (through non-emergency visits) and only enhance emergency cases that need urgent LTC care (18,52).

Four, the results are drawn from the study reveal that there is low access to private insurance cover among most of the Middle East population (3,19,20,53). The public health sector needs to create awareness and educate the public on the need for insurance coverage for persons with LTC needs, and especially across low-income households (54,55). Lack of public awareness about suitable cover continues to expose a substantial number of the population to costly LTC services that strain family income (21,22,56). Public awareness about suitable cover will help increase the present low cover rate of 27% and 30% among the young and elderly persons, respectively.

Conclusions

The aim of this study was to explore the economic impacts that LTC has in the UAE in comparison with other countries in the Middle East. Results from the secondary research approach reveal that the demand for LTC services has been on the rise not only in the UAE but also across the Middle East. However, despite the rise in demand for the LTC services from across all the age groups, the sector continues to encounter substantial challenges in terms of inadequate resource allocation, lack of insurance cover, and financial support. As a result, persons from low-income households continue to experience insurmountable hurdles when accessing LTC services both in the UAE and in other Middle East countries. Growing evidence from low income earning countries like Yemen, Syria, the State of Palestine, and Iraq shows evidence of households pushed into impoverishment due to expensive long-term medical expenses. Difficulties in accessing LTC services are further worsened when considering families without insurance cover, elderly persons, and loss of household income resulting from chronic health. These findings reveal that the existing LTC model in the Middle East needs reforms because it largely exposes poor households without insurance cover or government financing or subsidies to the considerable financial burden.

To address the LTC challenges currently experienced in the UAE and across the Middle East, there is a need for some reforms in the public health sector. Some of these reforms include having in place adequate health service facilities to cater to the growing demand for LTC services. The facilities need to be equipped with resources to reduce overreliance by the public on private facilities which remain inaccessible to low-income households due to high financial costs. Thus, the public health sector in the UAE and across the Middle East needs to develop new measures to increase access to LTC services for the vulnerable groups through initiatives like covering the out-of-pocket payments through universal healthcare. Second, the growing demand for LTC services can also be achieved through early medical interventions to avert potential incapacitating medical conditions (such as spine injuries, falls, and noncommunicable diseases), from progressing into chronic conditions. Third, public health

needs to educate the population about the importance of medical cover by encouraging the public to enrol in insurance initiatives to reduce growing out-of-pocket charges and other costs resulting from LTC services. The government should also consider waiving the copayment fees on some vulnerable groups including the poor, the elderly, mentally impaired, and the children.

Conflict of Interests

Authors have no conflict of interests.

Ethical Issues

There are some potential ethical issues that arise from undertaking this study project. Some of these issues include data access, data protection, and integrity. The researcher took into consideration the need to ensure that the collected data was reliable and authentic in line with the formulated research aims and objectives. Besides, the researcher worked to ensure the authenticity and reliability of the obtained data to reduce potential bias which could have resulted from poor handling and interpretation of the collected information. Also, to ensure integrity, all the relevant insights and information collected from different secondary resources have been appropriately documented and referenced throughout the text to ensure integrity.

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