

# Measuring the Awareness on Financing Long Term Care Cost among Public and Private Sector Employees in Malaysia

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## Abstract

Financing long-term care for elderly people is a crucial issue, either towards the family members or the care institution. Corresponding with the growing number of ageing population in Malaysia, there's a need of concern on the uncertainty of future family care and the need for long-term care services. This changing pattern of healthcare and cost over individual's lifetime is a key component in actuarial field in developing assumptions and projecting the costs. This paper examined the determinants of awareness towards long-term care preparation among employed adults in Malaysia, between public and private sector employees and also between men and women. 1,000 close-ended questionnaires were distributed to random employees in Malaysia and 450 responds were collected. Two tests were analysed using multiple regression analysis. The results from the regression among employees from different sector shows that dependency and health status are significant towards the awareness of preparing for long-term care cost. However, their financial literacy for long-term care cost during old age are still very low. Another result shows that only health status shows a significant result among women compared to men. These results indicate the level of awareness on financing long-term care cost among employees in Malaysia are still low and needs attention.

**Keywords:** Financing long-term care cost; Financial literacy; Longevity risk.



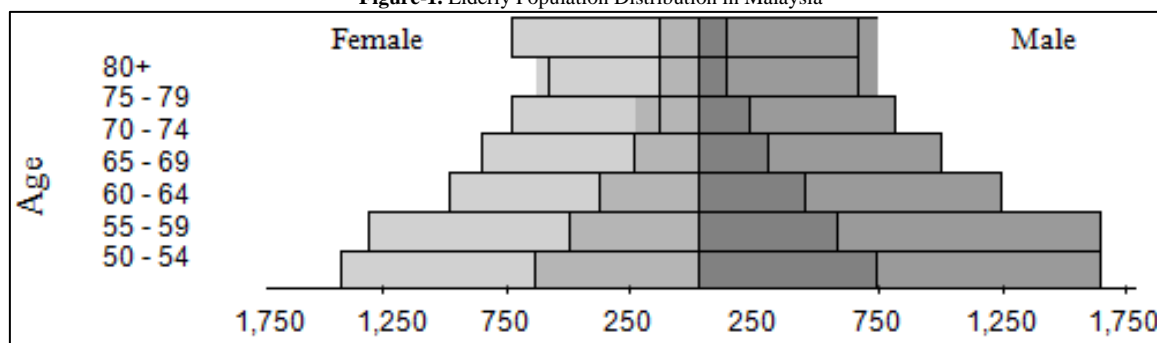
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## 1. Introduction

According to Department of Statistics Malaysia (2018) people are living longer due to the increase in life expectancy; women at 77.4 and men 72.7 years old. This demographic evolution has led to the increase in the number of older people in Malaysia with estimated 5% of the older population age 65 and above in 2010 to 14.5% in 2040. It is known that as people age, they are more prone to easily be ill and needs assistance with their daily and non-daily chores.

Based on the graph shown below, people are expected to live longer due to the increasing life expectancy, especially among women. This demographic trend not only occurs in Malaysia but is happening globally. Apart from that, it is reported that about 43% of those age 65 are expected to spend some time in the long-term facility, where half of them required care for three years or more and 20% of them are expected to spend five years or more in the nursing home (FG, 1997). This shows that these long-term care services are essential to the welfare of older people and those with disability.

Figure-1. Elderly Population Distribution in Malaysia



Source: (Department of Statistics Malaysia, 2018)

## 2. Previous Studies

### 2.1. Long Term Care

Population ageing is a global phenomenon, experiencing a rapid decline in fertility and mortality that is occurring most rapidly in countries in Asia. OECD has defined long-term care as services provided to people with reduced degree of functional capacity and having prolonged difficulties in doing daily living activities such as bathing, washing and eating (Othman, 2012). Due to this, the Ministry of Social Welfare in Malaysia has taken on the responsibility to provide shelter homes and care services to these older people through healthcare, guidance, counselling, recreating and religious teachings (Department of Social Welfare, 2018).

There are two categories to describe the tasks of the caregivers that is outlined based on the elder's functional needs (Levine *et al.*, 2004). "Activities of Daily Living" (ADL) are considered as fundamental tasks such as bathing, dressing, using the toilet, transferring, continence and feeding. The other category called "Instrumental Activities of Daily Living" (IADL) is to complement on any additional daily tasks as compared to ADLs. Some might be independent on ADLs but are not as independent in the community due to disability to cook, perform housework, do laundry, go shopping or take medication.

In most Asian countries, it has become a tradition to take care of family members or elderly relatives. However, family members might not be able to give assistance due to career or financial commitments. Therefore, long-term care services come in hand for the welfare of these older people. These long-term care services provide assistance with their daily chores or non-daily chores such as bathing, feeding, cleaning and groceries shopping.

Apart from that, elderly people may also need extra care or service to take care of them due to health problems. This set of services is important especially for those who are unable to take care of their own self including those with chronic illness or disability that needs somebody else to care and assist them to perform any basic daily activities. It is a challenge as we don't specifically know how long a person needs the service as it may take up to weeks, months or even years. Due to these conditions, long-term care services are essential to the welfare of older people and those with disability.

Some of the retirees may need extra care or service to take care of them due to health problems during old age. Therefore, this is a growing concern for the Malaysians, especially the cost and care for elderly people has increased. Although long-term care service in Malaysia are provided by the public Social Welfare Department of Malaysia, private nursing homes and also by the non-public organizations (NGOs), the issue of awareness on financing long-term care for the elderly is concerned especially on future affordability of paying for health care and long-term care services. Therefore, to prepare for long-term care cost is important in order to provide Malaysians with better financial planning and to avoid living in poverty during old age.

According to Bond *et al.* (2007), the barrier to life fulfilment for older people is not the age but rather the environment they are living. Therefore, these elderly people that needs special care in long-term care institutions should provide a comfortable environment in order to improve their overall health and wellbeing. However, (Ong, 2002) states that the declining number of family members caring for their elderly members proves the needs of long-term care services which then leads to financial commitment or funding by the individuals, families and public. As previously discussed, a certain amount of cost is needed to cater their needs and also to sustain these long-term care homes, which is crucial especially for those who are living alone. Malaysia's social security provision for older people can be considered as uncertain compared to other middle-income countries. Therefore, the level of health and welfare investment is needed as the number of ageing population is expected to increase significantly.

### 2.2. Public Facilities For Malaysian Elderly

In Malaysia, this particular role is mainly governed by the Ministry of Women, Family and Community Development, specifically under the Department of Social Welfare. In order to enforce the old age services in Malaysia, the 2011-2015 Department of Social Welfare's Transformation Plan formed a division specifically to take care of the elder's welfare which is called Elderly Division (Hamid and Yahaya, 2008). With their main role to plan, execute and oversee programs and activities related the elders including issues and challenges, the division is divided into four branches which are Institutional Services, Elders Empowerment, Elders Social Support and National Advisory and Consultative Council for Older Person (Department of Social Welfare, 2018).

Originated from 1982 United Nations World Assembly on Ageing in Vienna where International Plans of Action on Ageing (IPAA) was formulated (Hamid and Yahaya, 2008), Malaysia's National Policy on Older Persons was presented with one of its principle objectives on promoting the establishment and availability of specific facilities to ensure the care and protection of the elder person. After the policy was first endorsed, it is reported that the current 2011 National Policy on Older Persons has given more focus on old age's preparation (Hashim, 2014).

The 3-different long-term care components with public facilities and programs offered under the Department of Social Welfare is mapped in Table 2.2 below to show on the current Malaysia's public elderly facilities complements the different long-term care types of services.

**Table-2.2.** Public Facilities According to Main Types of Coverage

Types of coverage	Public facilities and programs	Type of caregiving
Cash and in-kind benefits	Financial assistance Respite Care UPWE	IADL
Institutional care	Rumah Seri Kenangan Rumah Ehsan	ADL and IADL
Home care	"Home Help" program Programs and Activities Respite Care PAWE UPWE	IADL

Source: (Hamdy and Md Yusuf, 2018)

## 2.3 Funding For Long Term Care

This long-term care system funding may vary between countries. In 2013, the United Kingdom (UK) Public has announced in reforming the long-term care system to determine how much the state should contribute to people's care costs and this has resulted to an increase of public expenditure by 2030. United Kingdom, United States, Singapore and Canada provides social assistance programs that is funded by general tax revenue especially for those who are poor and needs Long-term care services. However, those with assets or income needs to pay on their own a portion of the Long-Term Care cost that is charged.

It is reported that people aged 65 and above are expected to spend some time in the long-term facility, where half of them required care for an average of three years or more (Kemper *et al.*, 2005). This shows that these long-term care services are essential to the welfare of older people and those with disability. The cost for long-term care in nursing homes or old folk homes could be expensive, depending on the type of care and treatment one needs. Specifically in Malaysia, rates for private nursing homes can amount to RM 3,000 per month excluding medical treatments and other recurring expenses.

For a retiree either from public or private sectors, these costs are expected to be paid using their retirement income. For private sector employees, their compulsory retirement income is solely from Employees Provident Fund (EPF) savings that they accumulate during their working years. On the other hand, for public sector employees, they are provided with retirement income from the pension scheme. However, EPF has reported that almost 80% of employees reaching age 55 would have savings below the poverty line (Malaysia's average poverty line is RM 830 a month). Furthermore, their retirement savings is expected to exhaust within 3 years upon reaching retirement age (EPF, 2008). Previous study also reported that retirees with EPF face higher risk of having lower replacement rate during retirement years compared to retirees with pension scheme (Md Yusuf, 2012). Therefore, this shows that private sector employees face higher risk during retirement age and needs to be proactive with their financial planning during employment years.

Due to this, the cost that these elderly people in Malaysia must consider paying using their own accumulated savings in EPF (for private sector employees) or pension income to pay for their Long-term care services. Moreover, women are expected to live longer and face longevity risk, therefore how long can they rely on these savings? Can they afford to pay for long-term care services if it is needed in the future? Therefore, this study is focused on measuring the awareness on financing long-term care cost among public and private sector employees in Malaysia.

David and Quek As a percentage of government health expenditure, social security expenditure is only around 0.8 percent, mainly due to the withdrawal of savings from the Employee Providence Fund (EPF) from the specific allowable account.

Linda Hiddemen Barondess (Linda, 2006) Despite rising costs of long - term care (LTC), today, according to a recent survey of 1,000 adults aged 21 to 75, there are fewer Americans planning future expenditure on LTC than about a decade ago.

Claude and Erin (1997), The 1960s and 1970s were a period of socialization of healthcare in OECD countries, while in the 1980s and 1990s there was privatization of healthcare. The private sector's greater involvement in health care was achieved through cost containment strategies, implementation reforms and new methods of allocation. In general, private financing has increased, while access to certain services has declined.

## 3. Methodology

This research uses primary data by conducting a questionnaire survey for employees in Malaysia randomly picked from different sectors; public and private. 1,000 questionnaires were distributed and only 452 responded. The questionnaire item includes questions on demographic profile, awareness towards long-term care, and three continuous variables; i) health status that represents their concern towards their health, ii) dependency towards retirement income (pension scheme or Employees Provident Fund) to show their confidence towards the current compulsory retirement income set by the government and iii) financial literacy towards long-term care cost that represents their readiness towards financing the cost.

The questionnaire is designed to gather information needed and is then analyzed using two multiple linear regression models. Multiple Linear Regression model are used in this study to explore on the relationship between one continuous dependent variable (awareness towards Long-term Care) and a number of independent variables (dependency, health status and financial literacy towards long-term care cost). The results shows significant variables to indicate the level of awareness towards preparing for long-term care cost during old age.

The two models that were tested in this study are:

- i) Different predictors on awareness between public and private sector employees (eq 1)

$$y = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \beta_3 x_{3i} + \varepsilon \quad (1)$$

Where  $y$  = awareness of people towards long-term care (LTC)

with  $i = 1, 2$  : 1 = public sector employees; 2 = private sector employees

$\beta_0$  = constant

$\beta_1 x_1$  = dependency

$\beta_2 x_2$  = health status

$\beta_3 x_3$  = long-term care cost literacy

- ii) Different predictors on awareness between male and female (eq 2)

$$y = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \beta_3 x_{3i} + \varepsilon \quad (2)$$

Where  $y$  = awareness of people towards long-term care (LTC),

with  $i = 1, 2$ : 1 = male; 2 = female

$$\begin{aligned}\beta_0 &= \text{constant} \\ \beta_1 x_1 &= \text{dependency} \\ \beta_2 x_2 &= \text{health status} \\ \beta_3 x_3 &= \text{long-term care cost literacy}\end{aligned}$$

## 4. Results and Discussion

### 4.1. Awareness on Long-term Care Between Public and Private Sector Employees

**Table-1.** Fit regression model for awareness on long-term care between public and private sector employees

Predictor	Coef	SE Coef	t	Sig.
Constant	1.506	1.337	1.126	0.261
Dependency Public	0.247	0.086	2.857	<b>0.004</b>
Dependency Private	0.176	0.076	2.309	<b>0.021</b>
Health Public	0.895	0.111	8.072	<b>0.000</b>
Health Private	1.011	0.096	10.561	<b>0.000</b>
Literacy Public	0.211	0.142	1.487	0.138
Literacy Private	0.184	0.133	1.378	0.169

Table 1 above shows results for the first regression model; model tested on awareness of long-term care between public and private sector employees (eq 1). Based on the results in Table 1, it shows that only two variables are significant and one insignificant variable, both for public and private sector employees. Dependency towards retirement income for public sector and private sector employees shows significant results of 0.004 and 0.021 respectively. Apart from that, health status for public and private sector employees also shows significant results of 0.000. Literacy towards financing long term care cost for public and private sector employees shows insignificant results at 0.138 and 0.169 respectively.

The results show that Malaysian employees are very much dependent on pension scheme (for public sector employees) and EPF (for private sector employees) as their retirement income. They expect that these current retirement savings scheme could provide adequate amount of income during old age. Apart from that, they show good concern towards their health status. However, the results show that they have very low financial literacy towards long-term care cost. This shows that they did not or have not started planning for sources to finance the long-term care costs that might occur in the future. This is very crucial especially among private sector employees as they face higher risk of poverty during old age compared to employees under public sector.

### 4.2. Awareness on Long-term Care Between Male and Female

**Table-2.** Fit regression models for awareness on long term care between male and female

Predictor	Coef	SE Coef	t	Sig.
Constant	16.783	1.927	8.710	0.000
Dependency Male	0.111	0.134	0.826	0.409
Dependency Female	0.049	0.101	0.480	0.632
Health Male	0.046	0.192	0.242	0.809
Health Female	0.256	0.122	2.096	<b>0.037</b>
Literacy Male	0.131	0.218	0.601	0.548
Literacy Female	0.079	0.190	0.414	0.679

Table 2 above shows results for the second regression model; model tested on awareness of long term care between male and female (eq 2). Based on the results in Table 2, it shows that only one variable is significant and two insignificant variables. Dependency towards retirement income for male and female shows insignificant results at 0.409 and 0.632. However, health status for female shows significant value (0.037) and insignificant result for health status for male (0.809). Literacy towards financing long-term care cost also shows insignificant results for both male and female at 0.548 and 0.679 respectively.

The results show that female is very concern towards their health status. This is a good indicator that women employees in Malaysia are aware on their health and that they are aware of longevity risk. The results also show that they are no difference on dependency on retirement income and also on literacy for long term care cost for both genders. This shows that either men or women did not or have not started planning for sources to finance the long-term care costs that might occur in the future. This is very crucial and important especially among women employees as they are expected to live longer and face higher risk of being ill and needs assistance with their daily tasks.

## 5. Conclusions

Three determinants were used in this study to describe the level of awareness towards preparation of long term care among employees in Malaysia which are dependency on available retirement fund, health status and financial literacy towards long term care cost.

The results from both regression model underlines that both employees from public and private sectors are yet to be aware on the importance of planning for sources to finance the long-term care costs. Since Malaysia is moving towards ageing population and the ratio of older people is also expected to rise, therefore it is important for the policy makers to expose the employees on the risk they may face during old age.

The findings are also beneficial and relevant to the policy makers and insurance companies that involves retirees, health-care benefits and nursing homes to demonstrate on the importance of financial planning for future long-term care costs. It is important especially among women to prepare on managing their longevity risk. Therefore, it is suggested that some campaigns on awareness towards long term care is done especially among employees in Malaysia.

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