MALAYSIAN RESEARCH INSTITUTE ON AGEING (MyAgeing™) UNIVERSITI PUTRA MALAYSIA

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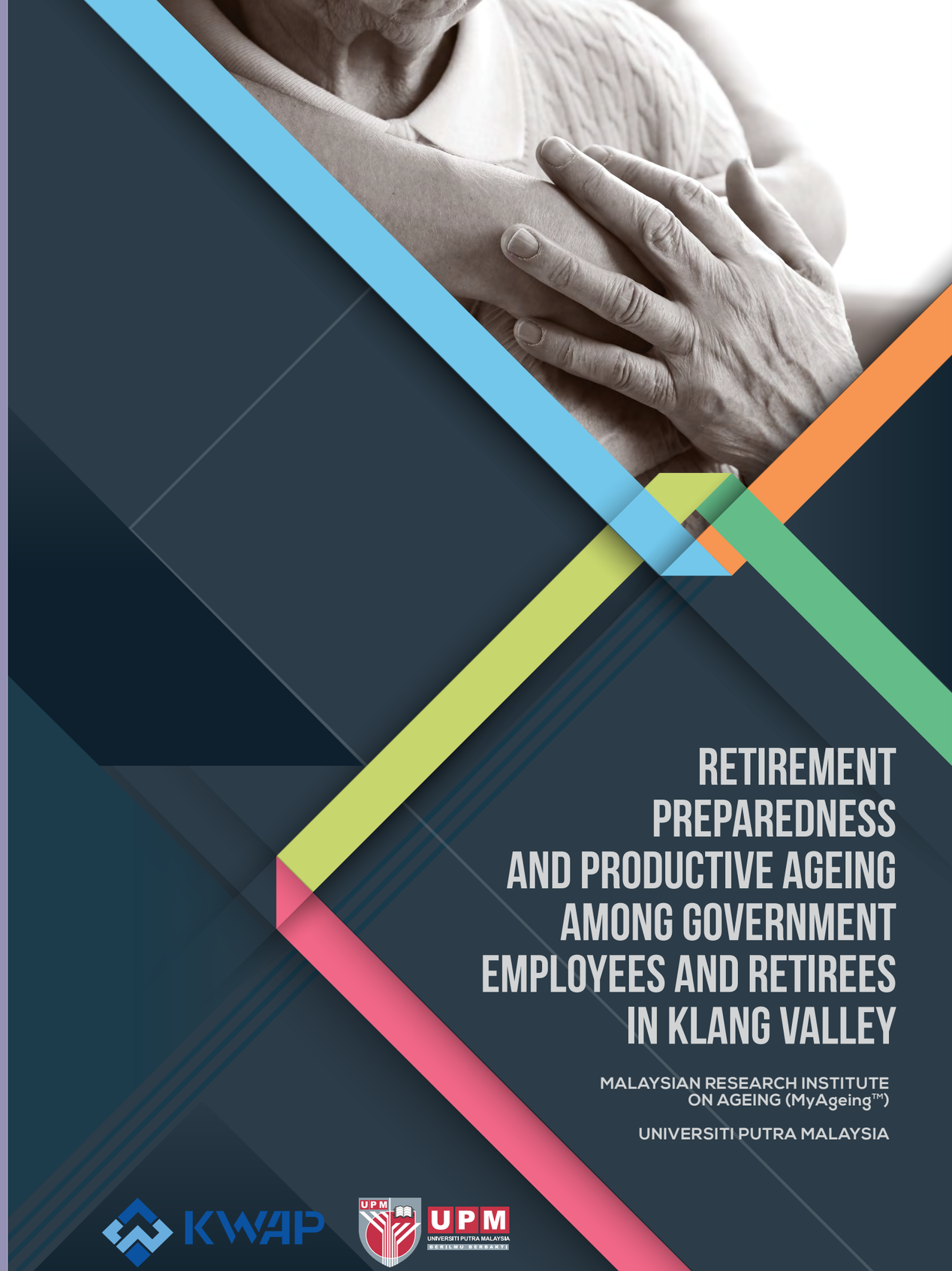

RETIREMENT PREPAREDNESS AND PRODUCTIVE AGEING AMONG GOVERNMENT EMPLOYEES AND RETIREES IN KLANG VALLEY

MALAYSIAN RESEARCH INSTITUTE
ON AGEING (MyAgeing™)

UNIVERSITI PUTRA MALAYSIA

about this report

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Project Title
Retirement Preparedness and Productive Ageing among Government Employees and Retirees in Klang Valley

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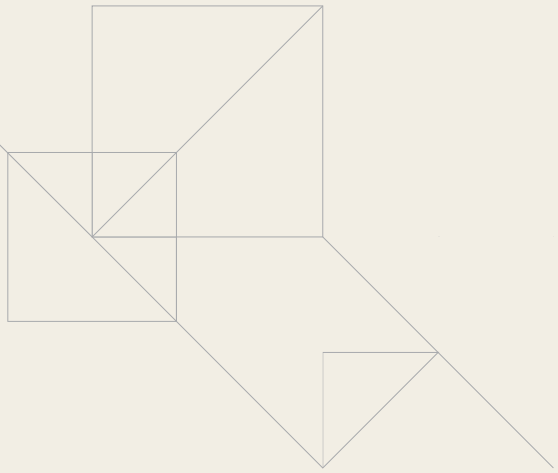
GLOSSARY

1PESARA	1Malaysia Civil Service Retirement Support
ASB	Amanah Saham Bumiputera
ASN	Amanah Saham Nasional
BR1M	Bantuan Rakyat 1Malaysia
DOSM	Department of Statistics Malaysia
EC	Economic Contributions
EPF	Employee Providence fund
FWB	Financial well-being
GCR	Ganti Cuti Rehat
GDP	Gross Domestic Product
HRMIS	Human Resource Management Information System
IADL	Instrumental Activities of Daily Living Scale
JKKK	Jawatankuasa Kemajuan dan Keselamatan Kampung
KPI	Key Performance Indicator
KWAP	Kumpulan Wang Persaraan (Diperbadankan)
MCS-12	Twelve Mental Component Summary
MPFS-5	Fifth Malaysian Population and Family Survey
MRR	Market Replacement Rate
MyAgeing™	Malaysian Research Institute on Ageing
OC	Opportunity Cost
PCS-12	Twelve Physical Component Summary
PSD	Public Service Department
SD	Standard Deviation
SF-12	The 12-Item Short Form Health Survey
SOCSO	Social Security Organization
TFR	Total Fertility Rate

ACKNOWLEDGEMENT

IN THE NAME OF ALLAH, THE MOST COMPASSIONATE AND THE MOST MERCIFUL
PEACE AND PRAYER BE UPON PROPHET MUHAMMAD AND HIS HOUSEHOLD.



Alhamdulillah, all praises to Allah for with His blessing and greatness we have the ability and opportunity to undertake this project and to persevere, thus complete it successfully.

The project team wishes to acknowledge the contributions of those who have, directly or indirectly, contributed to the project activities. First and foremost to the Public Services Department, in particular the Post-Service Division for their unlimited assistance during the various phases of the project. We are grateful as well for the involvement of retirees in Klang Valley and public employees from various ministries for their willingness to spend time to fill in our questionnaires. Our profound gratitude is also extended to all enumerators and other field functionaries who assisted our team during data collection.

This meaningful project would not have been possible without the generous funding from the Retirement Fund (Incorporated) or Kumpulan Wang Persaraan (Diperbadankan) (KWAP). Hereby, we wish to acknowledge the support of many people at KWAP, especially Dato' Wan Kamaruzaman Bin Wan Ahmad, Chief Executive Officer and Mr. Ismail Bin Zakaria, Director, Corporate Strategy and Performance Department and his team. Thank you for the opportunity to collaborate and giving us full support to complete the project. Our sincere appreciation also goes to Ms. Nor Shafaleena Shaik Abdul Shukkor, Assistant Vice President, Corporate Strategy and Performance Department, who provided us with the necessary information and facilitated our work with immense cooperation.

Last but not least, we would like to extend our sincere appreciation to all staff of the Malaysian Research Institute on Ageing (MyAgeing™) for their timely support.

"With Knowledge We Serve"

Thank you.

EXECUTIVE SUMMARY

This study on Retirement Preparedness and Productive Ageing among Government Employees and Retirees in Klang Valley was a collaborative effort between MyAgeing™ and KWAP. The motivations for pre-retirees research were to assess their retirement preparedness and productive activities beyond working hours. As for retirees, it was to estimate the value of productive activities, barriers and facilitating factors to participate actively in the community.

The data for the study were collected among pre-retirees and retirees in Klang Valley. Listing of the respondents were obtained from the Public Service Department (PSD). Pre-retirees included federal government employees from 11 ministries/agencies from the management and professional as well as from the support groups. Data were collected through self-administered questionnaires and a total of 863 pre-retirees completed the questionnaires. As for retirees, age 60 to 79 years old were selected randomly from 33 postcodes containing more than 1,000 names. A total of 747 retirees were personally interviewed in their homes by trained enumerators.

Pre-retirees

Majority of the pre-retirees were Malays, had tertiary education and employed in the professional group. They were married with dependent children and lived in nuclear households with a mean of four-person households. More than half planned to retire at the mandatory retirement age of 60 with the younger age group plan to opt for early retirement. The study showed stereotypical expectations in retirement as having free time, focusing on religious activities, spending time with family and travelling. Only a small percentage had made a written retirement plan.

Generally, pre-retirees perceived that they were prepared for retirement. The older aged pre-retirees, however, were more prepared in terms of finances than the younger pre-retirees. With regards to involvement in the community such as volunteerism, pre-retirees would only get involved when they have free time. The four factors which significantly explained the retirement preparedness score were good cultural practices, positive perception towards retirement, have retirement plan and number of assets owned. All the four factors reflected the way of life of pre-retirees. The three highest assistance needed to prepare for retirement were managing money, financial advice for retirement and emotional preparation for the next phase in life. The listed assistance put forward by pre-retirees were in line with high level of indebtedness.

Health status was the key determinant for both facilitating environment and barriers to active participation in retirement. More than three quarters of pre-retirees in this study perceived their health as good, despite the fact that one-fourth indicated they had hypertension. In addition, there was one out of ten with at least one age-related disease at a much younger age. Majority of the pre-retirees used government clinics and hospitals for outpatient services. Pre-retirees reported to have non-communicable diseases which are related to lifestyle and once developed, they will have to manage it for life. These diseases are preventable. Majority of pre-retirees were involved in providing care for their immediate family, and one-fifth were involved in second jobs that help generate additional income. Only a small number of pre-retirees were involved in volunteer work and community services.

Retirees

Mean age of the retirees was 64.8 years and majority were Malays, married and had secondary education. The mean monthly pension received by the retirees was RM2,174 (median = RM1,900). One-third of retirees continued working for pay after retirement due to economic factors. The two major barriers to re-employment mentioned by retirees were status of their health and age limit. The retirees were involved in many types of activities. Nevertheless, majority were involved in own routine activities, caring for themselves and family members. About one in four retirees were involved in teaching and volunteering. The estimated total annual economic contribution of retirees using Market Replacement Rate which was based on the hourly market value of the closest (paid) activity to the (unpaid) productive activity undertaken by a person, was RM15 million.

The top three diseases reported by retirees were hypertension, diabetes and hyper cholesterol. There were one-fifth of retirees who reported to be disease free; one-third had one disease; and about one-third had at least two diseases. The number of retirees who visited government clinics and hospitals in the past six months were 48% and 40% respectively and the total visits were 1,010 and 824 respectively. The estimated total government cost for government clinics for one year was RM121,200 and government hospitals was RM98,880 based on the total visits of the respondents to both facilities.

Slightly more female retirees scored higher in ideal practice for life in retirement compared to male retirees. In addition, more married retirees compared to widowed or separated retirees indicated ideal life practice of life in retirement.

Summary of Findings:

Pre-retirees

- The pre-retirees were productive beyond working hours, but spend most time on "family-focused" activities.
- They spend around one to two hours per day on volunteering or supplementary earning.
- In general, they have positive attitudes towards life in retirement which indicate that they will adjust well in retirement in terms of power, social etc.
- Pre-retirees attitudes and aspiration indicated that were "untapped" resources in future. Proper plan and programs must be in place to harness andcapitalize on this resources.
- Only 31% plan to work after retirement, mostly because they want to contribute to the society (59.8%) as well as the need of extra money for leisure activities (43%) and to support living (43%). Main reason not to work was to rest and focus on spiritual or religious activities (83%).
- When probed further on their retirement plan, they actually prefer to maintain "self or family-focused" activities when they retire. Majority mentioned that they were looking forward to focus on religious activity (82%) and time with family (77%) in retirement.
- As to retirement preparedness, pre-retirees were most prepared in social dimension and least prepared in economic and health dimensions.
- They foresee health (55%) and age (51%) will be the barriers to active participation in community.
- Pre-retirees contributed to productive activities beside their employment. The total estimated value of pre-retirees productive activities are RM 11 billion (MRR) and RM 9.8 billion (OC). Most productive activities were caring for their family members.
- Pre-retirees have non-communicable diseases (NCDs) which would last a life time (i.e.: hypertension-21.2%, hyper cholesterol-13.7%, diabetes-11%).
- Pre-retirees have lower percentage of self-care practices. This reflects potential burden of healthcare cost to the government in the future.

Retirees

- Mean age of retirees was 64.8 years. They receive mean monthly pension of RM2,174.
- Retirees immersed themselves in "self and family-centred" activities.
- Some did involve in community activities especially on religious matters and volunteerism. Most enjoy activities by retirees are visiting relatives and friends (76%) and vacation (domestic-62%, overseas-37%).
- Top three aspect of life in retirement with score are adaptability, economics and environment.
- Barriers to work for pay are health (55.3%) and age (49.4%).
- Facilitating factor to active participation in community is maintaining good health 59%.
- Barriers to active participation in community are rest and focus on spiritual or religious activities (62.5%) and health problems (60.5%).
- Retirees are contributing to the economy. The total estimated value of their contribution: RM 11.7 billion (MRR) and RM 10.3 billion (OC).
- Estimated value for household chores: RM 5 billion (MRR) and RM 1.9 billion (OC).
- Estimated value for care: RM 1.7 billion (MRR) and RM 2.5 billion (OC).
- The retirees have NCDs (i.e.: hypertension-46.5%, diabetes-31.6%, hyper cholesterol-17.5%) and also other age related diseases such as joint pain and vision problem.

The recommendations and actions to be taken are as follows:

Pre-retirees:

Objectives	Recommendations	Actions
1. To determine productive activities of pre-retirees.	1. Develop government volunteer groups to cultivate the culture of community involvement and volunteerism among pre- retirees.	1. To acknowledge employees' contribution to the community through a merit system or be built- in the employees' Key Performance Indicator (KPI). 2. To include community involvement as part of the annual in-service training.
	2. Conduct a national time use study among government employees and to assess burden of care among family.	1. To develop research proposal on national time use study and seek funding.
2. To examine pre-retirees' aspiration and attitudes towards life in retirement and retirement preparedness.	1. Develop retirement planning modules tailored to the needs of the employees and based on different life stages.	1. To introduce retirement planning early in the career especially on financial aspects. 2. To develop "forced saving" program similar to EPF. 3. To develop comprehensive modules which consist of both financial and socio-psychological aspects of retirement preparation. 4. To conduct pre-retirement training course (aged 40) and retirement preparation course (aged 55 onwards).
3. To identify the facilitating environment and barriers encountered by the pre-retirees to be involved in productive activities.	1. Review employment policy, rules and regulations to address the issue of re-employment in old age.	1. To develop work package suitable for older workers. 2. To introduce attractive package to entice pre-retirees to venture into community activities as part and parcel of their work. 3. To conduct awareness campaigns on the importance of productive and active ageing among government employees.
	2. Develop in-situ preventive health programs to encourage healthy living.	1. To establish a merit system at individual and departmental levels for active participation and staying healthy. 2. To develop preventive health programs at the workplace.
	3. Review the mandatory retirement age and explore gradual retirement or phase retirement option.	1. To explore workers' preference regarding retirement age and gradual retirement. 2. To conduct trial period for implementation of gradual retirement.
	4. Overcome ageism and stereotype towards older persons.	1. To conduct research on the extent of ageism and stereotype among different groups. 2. To launch a campaign and educational program to address ageism and stereotyping. 3. To develop Malaysian Ageism Index.

Objectives	Recommendations	Actions
4. To assess the value of productive activities contributed by the pre-retirees to the economy.	1. Develop a valuation system for productive activities among government employees and retirees.	1. To compile market replacement rate for productive activities. 2. To develop opportunity costing for different productive activities based on qualification. 3. To explore reservation wage. 4. To incorporate valuation for the activities in GDP.
5. To assess the health status and health service utilization patterns of pre-retirees.	1. Systematically implement preventive health policy among government employees.	1. To include the health status as one of the indicators of performance. 2. To develop workplace health intervention programs to promote healthy lifestyle, supportive environment and addressing the health needs of employees. 3. To expand mandatory health check-ups at the age of 30, 40, 50 and before retirement. 4. To provide incentives for employees who are involved in preventive health activities such as regular check-up and body weight management. 5. To explore the possibility of long term care insurance for government employees.
6. To determine the level of self-care practices of the pre-retirees.	1. Develop programs to increase self-care practices among government employees.	1. To create an awareness on the importance of self-care through various channels. 2. To give recognition to staff who are actively involved in promoting self-care. 3. To encourage self-care activities through formation of self-care teams at departmental levels.

Retirees:

Objectives	Recommendations	Actions
1. To determine productive activities of retirees.	1. Develop a database on skills and expertise of retirees.	1. To update retirees database by including their skills and areas of expertise. 2. To provide access to the database to potential employers. 3. To explore possibility of setting job quota for re-employment of retirees. 4. To give incentives to employers who employ retirees.
	2. Intensify retirees' contribution to the community.	1. To develop directory of community activities. 2. To establish information centre for retirees to know about opportunities to contribute to the community. 3. To disseminate community activities information at common places such as places of worship and public transports. 4. To include community activity information in MyPesara Apps. 5. To give recognition to retirees who are active in community activities.
2. To examine retirees' aspirations and attitudes towards retirement, retirement preparedness, life in retirement and retirement adjustment.	1. Increase knowledge and skills in managing life in retirement.	1. To develop managing life in retirement modules. 2. To design and implement a pilot training program on managing life in retirement. 3. To engage and train retirees as trainers. 4. To implement managing life in retirement programs. 5. To conduct periodical training evaluation for further improvement.
3. To identify the facilitating environment and barriers encountered by retirees to be involved in productive activities.	1. Increase retirees' involvement in productive activities.	1. To develop registry of retirees who are interested to be re-employed. 2. To create job-matching platform specific to post-retirement employment, such as job sharing, contract, flexible time and piecemeal. 3. To provide knowledge and skills in developing senior-preneurs among retirees. 4. To encourage activity centre or self- help groups among retirees. 5. To strengthen the volunteerism component of 1PESARA volunteer initiatives by promoting aggressively to create a pool of senior volunteer movement amongst retirees.
4. To assess the value of productive activities contributed by the retirees to the economy.	1. Increase the proportion of retirees' involvement in the community.	1. To develop programs to instil the culture of volunteerism in the community. 2. To conduct local community needs assessment to identify the issues and needs of the community. 3. To provide training to enable the retirees to volunteer to the local community. 4. To increase opportunities and accessibility to programs in the community to entice participation from the public.

Objectives	Recommendations	Actions
5. To assess the health status and health service utilization patterns of the retirees.	1. Systematically monitor health service utilization among retirees.	1. To categorize retirees based on their health status to ease medical support; updated every three years. 2. To implement mandatory health check-ups at the age of 60 and at the interval of every five years. 3. To establish community health care monitoring and advisory services for retirees.
6. To determine the level of self-care practices of retirees.	1. Develop programs to increase self-care practices among government retirees.	1. To create an awareness on the importance of self-care through various channels. 2. To encourage self-care activities through community self-care groups.

Limitation of Study

The study was conducted among government employees and retirees in Klang Valley. Thus, the result cannot be generalised to the whole population of government employees and retirees. The study also faced challenges in data collection for both pre-retirees and retirees. Hence, data collection process was revised to address the challenges during fieldwork to achieve an agreeable sample size.

Introduction

chapter one

INTRODUCTION

1.1 Introduction

Malaysia is experiencing rapid demographic and social structural changes. At present, the number of Malaysians aged 60 years and above is estimated to be three million or 9% of the total population. The percentage of the population that is 60 years and over has also increased over the years: 5.2% in 1970, 5.7% in 1990 and 6.3% in the year 2000. It is projected to increase to 3.3 million in the year 2020. Malaysia is projected to become an aged nation by 2035 when about 15% of its population are 60 years and older (United Nations, 2012). However, the current population estimates by Department of Statistics Malaysia (DOSM), (2017) indicated that we will achieve the aged nation status by 2030, when 15% of Malaysia's population will comprise of people aged 60 years and over.

Two major factors which contribute to ageing population are namely reduction in Total Fertility Rate (TFR) and increase in life expectancy. The DOSM, reported that fertility rate per women aged 15 to 49 achieved the replacement level in 2010, five years earlier than projected in the year of 2015 (DOSM, 2016). Replacement TFR of 2.1 indicates that average number of babies born per woman is not sufficient to replace the woman and her partner. Consequently, the population growth rate declined from 1.8% in 2010 to a projected rate of around 0.8% in 2040. Therefore, the total Malaysian population of 28.6 million in 2010 is projected to be around 41.5 million in 2040. In short, the decreasing population growth rate is around 0.05% annually (DOSM, 2016).

At the same time, life expectancy among Malaysians has increased. In 2000, the average life expectancy was 72.2 years and this has increased to 74.7 years in 2016 (DOSM, 2016). Nevertheless, new born females in 2016, could expect to live for 77.2 years compared to new born males who could only reach 72.6 years. Sex differences in life expectancies were also noted among the major ethnic compositions of the population.

Chinese males were reported to have higher life expectancy at 75 years compared to their *Bumiputera* and Indian counterparts at 71.4 and 67.8 years respectively. Among females, the Chinese have longer life expectancy at 80.2 years compared to that of *Bumiputera* and Indians 76.2 years and 67.8 years respectively.

Consequently, demographic indicators show that Malaysian population are ageing. The total dependency ratios in 2010 was 47.8 persons per hundred working aged population (15-64) and in 2017, the dependency ration dropped to 43.6 (DOSM, 2016). In 2010, the young dependency ratio was 40.4 persons per 100 working aged population and in 2035, the ratio will be 30.8 persons per 100 working aged population. On the other hand, the old age dependency ratio increased from 7.4 persons in the year 2010 to 15.2 persons in the year 2035 (Author calculation based on DOSM, unpublished data, 2010). The reduction in dependency ratios was contributed by the increase in old-age dependency, indicating the growth of the aged population and a reduction in the young population. Falling fertility and increasing lifespans put pressure on economies, public finances and pension schemes.

1.2 Government Labour Force and Retirement

The Public Service Department (PSD), Malaysia is the leading personnel agency in which all aspects of human resource policies of the nation are managed. The functions of the PSD are as follows: (i) formulation of policies on recruitment, appointment, promotion, discipline and termination of service; (ii) determining manpower requirements and organizational structure for all government agencies; (iii) formulation of policies on remuneration and other facilities for government personnel; (iv) negotiation with aggrieved parties on claims made by workers and representing the government in all proceedings of the Public Service Tribunal; (v) providing adequate trained manpower to all government agencies; and (vi) administering and implementing all laws and regulations pertaining to pension and other retirement benefits. Article 132 of the Federal Constitution defines 'Public Service' as consisting of: (i) General Public Service of the Federation; (ii) Public Service of the States; (iii) Joint Public Service; (iv) Education Service; (v) Judicial and Legal Service; (vi) Police Force; and (vii) Armed Forces. However, this research only focuses on the General Public Service of the Federation (Federal Officers) in Klang Valley.

Government Retirement

The retirement of a government employee is not a right but a privilege. Retirement of government employees is enforced under the *Akta Pencen 227* (Retirement Act 227). There are several conditions under which a government employee can be consideredas a retiree and eligible for retirement benefits. These conditions are outlined in Article 8, 10, 11 and 12. The retirement age of government employees has undergone several revisions since the Act was enforced. The retirement age review has seen an upward trend in the cut-off mandatory age of retirement from age 55 to 56 in 2001, 56 to 58 in 2008 and to age 60 in 2012 in accordance with amendments to the Retirement Act 227. These revisions are positive moves in recognizing the capacities and longevity of Malaysians. In addition, PSD had developed the 1Malaysia Civil Service Retirement Support (1PESARA) initiatives under 11th Malaysia Plan (2016-2020) for the well-being of retirees. The 1PESARA initiatives include pre-retirement course within six months of the retirement date, 1PESARA CARE, Entrepreneurship Program and Volunteer Program.

The size of government employees has expanded from 670,958 in 1995 and reached the one million mark in 2009. In 2015, there were a total 1.27 million government employees, which increased to 1.6 million in 2017 (PSD, 1995-2015). The total number of retirees in 2017 was 671,947, i.e. 1.2 times higher than the numbers in 2011 which was 550,588 retirees. Out of this number, the derivative retirees accounted for 178,049 in 2017 and 147,265 in 2011. Consequently, the total pension paid out for 2017 was 13.97 billion, twice as much when compared to 2011 at about 7.23 billion. PSD reported that the number of retirees is expected to increase by 23,000 persons every year. As the life expectancy after 60 is about 18 years, workers would aspect to be spending longer life in retirement, signifying high government burden on future amount of pension pay outsand health care costs to support the retired government employees.

Retirement is a major life transition that changes the financial situation and time use among employees. This transition usually affects well-being depending on how prepared employees are for their retirement. As such, employees should adequately prepare for retirement. But how prepared are the government employees to retire is yet to be determined. What are the activities they are involved in and what are the values of their contributions are unknown? There is still limited research on retirement preparedness and time use among government employees. With increased longevity and number of retirees, there is a need to study on retirement preparedness and activities to debunk the misconception of retirees as "unproductive" group and seen as liabilities to the government.

> "ON THE WHOLE, THE PUBLIC VIEW OLDER PEOPLE AS A DRAIN ON SOCIETY INSTEAD OF AN ASSET. OLDER PEOPLE ARE MOSTLY SEEN AS A BUNDLE OF PROBLEMS AND SERVICE-NEEDS. THEIR STRENGTHS, SKILLS AND KNOWLEDGE ARE NOT HARNESSED OR APPRECIATED IN A SOCIETY INFATUATED BY THE CULT OF YOUTH."
>
> (AGEING POPULATION RESEARCH, 2017)

Nevertheless, retirees are untapped professional resources of the nation that can contribute to national development. Local research is needed to understand the behaviours of government employees and retirees and to measure their contribution to the economy.

Concomitantly, the objectives of the study are as follows:

1. To determine productive activities[1] of pre-retirees and retirees.
2. To examine pre-retirees' and retirees' aspirations and attitudes towards life in retirement, retirement preparedness and retirement adjustment.
3. To identify the facilitating environment and barriers encountered by the pre-retirees and retirees to be involved in productive activities.
4. To assess the value of productive activities contributed by the pre-retirees and retirees to the economy.
5. To assess the health status and health service utilization patterns of pre-retirees and retirees.
6. To determine the level of self-care practices of pre-retirees and retirees.

The research framework for the study on both retirees and pre-retirees is illustrated in Figure 1.2. It consisted of two layers – the individuals and the external environment. For the individual level, the components consisted of antecedent variables (profile of pre-retirees and retirees), retirement preparedness/adjustment and behaviours (passive versus active), and net economic contributions (cost and productive activities). The profile of the pre-retirees and retirees in the study are based on four aspects, namely socio-demography, psychology, health and economics of the respondents.

[1] The productive activities for pre-retirees refers to their time use pattern beyond 8 to 5 working hours in the public sectors. The productive activities for retirees refers to their daily time use categorised as productive (e.g. household production, personal use and participation in the community).

The retirement preparedness comprised of comprehensive areas of preparation which include social, physical environment, finances, psychological state and health. Preparation for retirement is beyond financial readiness. The economic contribution of pre-retirees and retirees are determined by the behaviours or choices made by the respondents. The active or inactive involvement in the community will be dependent on the environment that either facilitate or hinder participation. The economic valuation of involvement in activities will measure the contribution or cost to the society.

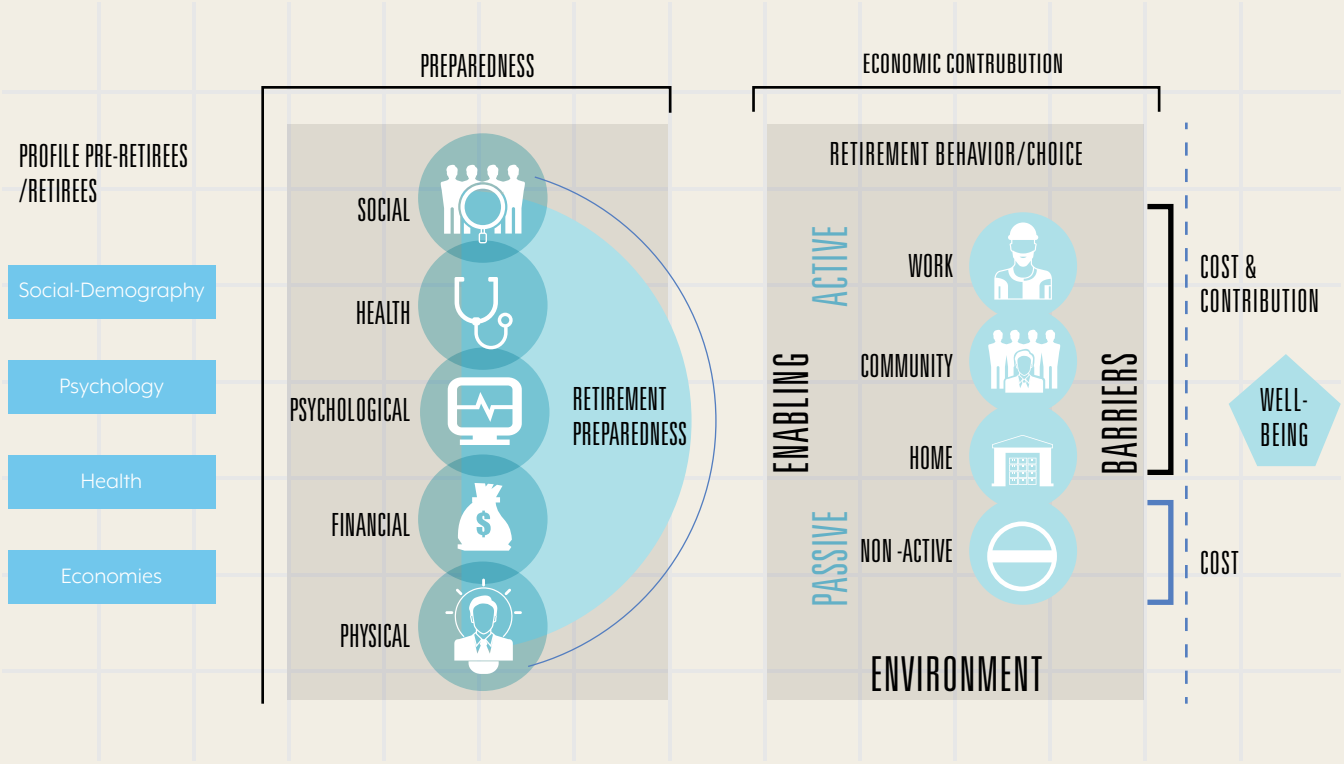


Figure 1.2: Research framework of the study

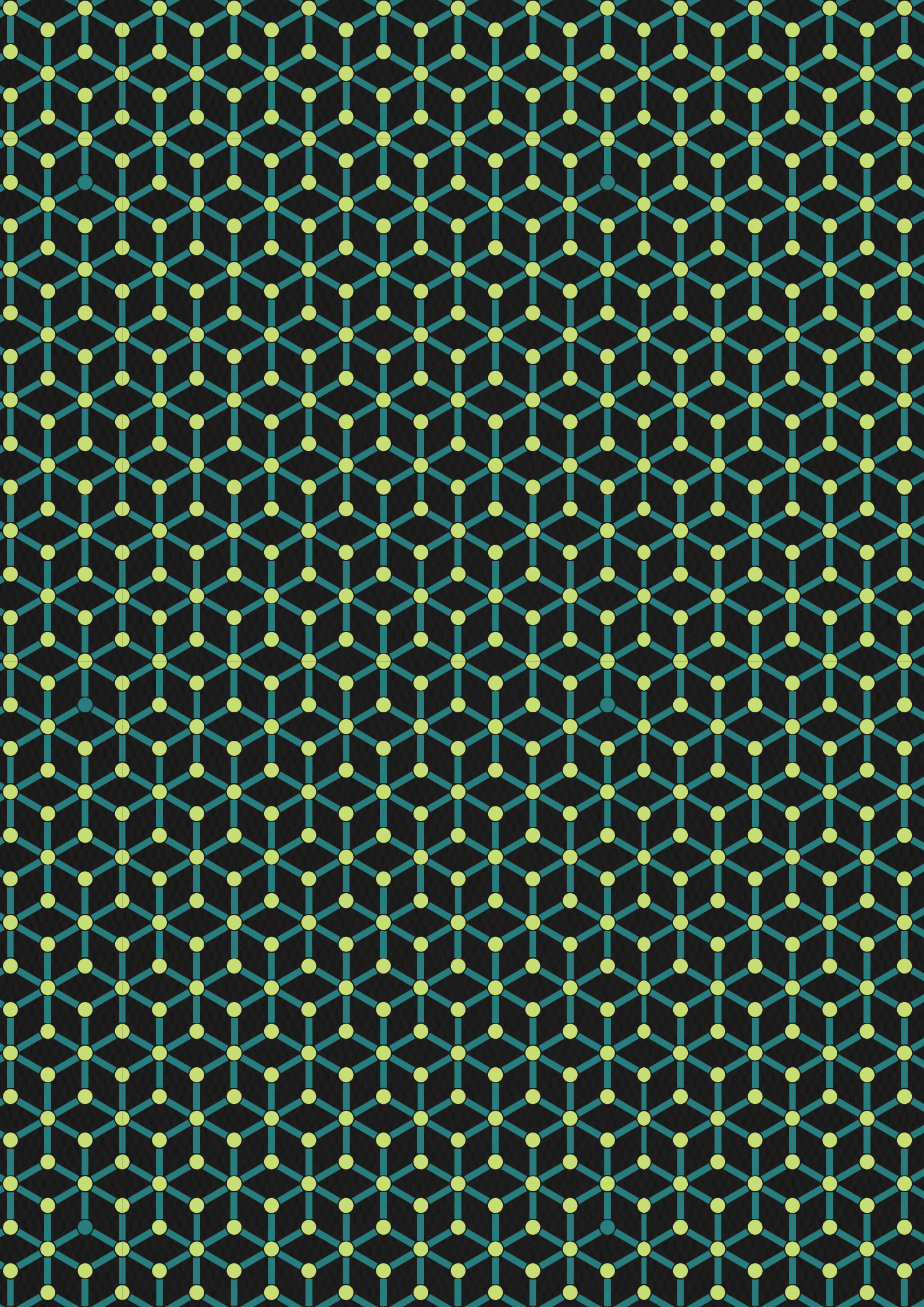
The external environment influential to active participation of current and future retirees is assessed as it influenced active participation. The preparedness of the respondents and their active or passive involvement in the community will influence their well-beingin later life. Nevertheless, in this study, the focus is only on the preparation and economic contribution of the respondents.

1.3 Organization of the Report

The following is the arrangement of the report:

- Chapter 1: Provides an overview of the research including research objectives and framework.
- Chapter 2: Explains the method used in carrying out the survey, the sampling, issues and instruments.
- Chapter 3: Present the findings and discussion for pre-retirees.
- Chapter 4: Present the findings and discussion for retirees.
- Chapter 5: Reports the summary of findings and recommendations of the study.

In line with the objectives of the research, the report underlies the direct and indirect impact of government retirees to the society as a whole. The analyses for pre-retirees were based on sex, age, education attainment and length of service. The analyses for retirees were based on sex, education attainment and length of retirement.



chapter two

Methodology

THIS CHAPTER DESCRIBES THE SAMPLING METHOD, DATA COLLECTION, ISSUES AND CHALLENGES IN DATA COLLECTION. THE METHODOLOGY FOR PRE-RETIREES AND RETIREES ARE DISCUSSED SEPARATELY.

METHODOLOGY

This chapter describes the sampling method, data collection, issues and challenges in data collection. The methodology for pre-retirees and retirees are discussed separately.

2.1 Sampling Procedure

The study is a quantitative research design using the survey method. The population of the study consisted of government employees aged 40 to 60 years and government retirees aged 60 to 79 years. The study area was in the Klang Valley with targeted sample of 1,000 retirees and pre-retirees respectively.

2.1.1 Sampling Procedure of Pre-retirees

The sample of the study comprised of government employees aged 40 to 60 years old in Klang Valley representing the Management/ Professional and Support Group in federal agencies. The sampling frame was obtained from PSD Human Resource Management Information System (HRMIS). The HRMIS contained names of Federal Officers and non-Federal Officers working in Selangor, Federal Territory of Kuala Lumpur and Federal Territory of Putrajaya. The total number of government employees in the HRMIS list was 114,076 people and the highest number of employees was the Federal Officers group which comprised of 81,998 or 72% of total employees. Three sampling procedures had to be used to determine the pre-retirees sample for data collection due to unforeseen circumstances. Each of these procedures is explained below.

2.1.1.1 First Sampling Procedure (Phase 1)

A total of 1,000 samples were selected randomly of which 400 were from the Management/ Professional Group and 600 from the Support Group. The selected name list was submitted to PSD as basis to invite them for the data collection workshop.

2.1.1.2 Second Sampling Procedure (Phase 2)

The second sampling procedure was done when the target respondent number was not achieved. For the second procedure, eight ministries with the highest number of government employees were selected. For Selangor and Wilayah Persekutuan Kuala Lumpur, three ministries with the highest number of employees were selected respectively, while in Putrajaya, only two ministries were selected (Table 2.1-1). The ratio 3:3:2 was based on the total population of government employees from each state.

Table 2.1-1: The list of states and ministries involved in the second sampling procedure

State	Ministry
Selangor	Ministry of Home Affairs
	Ministry of Health
	Ministry of Finance
Wilayah Persekutuan Kuala Lumpur (Kuala Lumpur)	Ministry of Works
	Ministry of Defence
	Ministry of Natural Resources and Environment
Wilayah Persekutuan Putrajaya (Putrajaya)	Prime Minister's Department
	Ministry of Education

For each of the ministries, 120 names were randomly selected. The distribution of the samples for each ministry is shown in Table 2.1-2. A total of 960 samples were selected.

Table 2.1-2: Targeted number of samples for each ministry

	Selangor		Kuala Lumpur		Putrajaya	
Support	35	35	35	35	35	35
Management/Professional	25	25	25	25	25	25

2.1.1.3 Third Sampling Procedure (Phase 3)

Due to lack of response from the selected sample in Phase 2, the team decided to use convenient sampling to fulfil the target number of respondents. Six ministries/agencies (Ministry of Natural Resources and Environment, Kuala Lumpur City Hall, Ministry of Defence, Department Of Statistics, Ministry of Urban Wellbeing, Housing and Local Government and Ministry of Energy, Green Technology and Water) were personally contacted through MyAgeing™ and they were willing to participate in the study. The contact person in the respective ministry/agency agreed to distribute the questionnaires to their staff and was given the criteria for sample selection as guideline for questionnaire distribution.

2.1.2 Sampling Procedure of Retirees

The sampling frame for retirees was provided by the PSD, which constituted a listing of 148,499 retirees in the Klang Valley area which covered Putrajaya, Kuala Lumpur and Selangor. Based on the sample calculation and budget consideration, the study determined a target sample of 1,000 respondents. The number of respondents for each area was determined by the population ratio of Putrajaya, Kuala Lumpur and Selangor at 2:4:4. Samples within each area were selected based on the postcodes with more than 1,000 retirees. A total of 33 postcodes fulfilled this criterion, thus they were selected for the study. Nevertheless, when the fieldwork was conducted, the information obtained from the listing was not current and the respondents selected for interviews were either, non-resident of the address, had moved away, died or the postcodes did not match the address identified initially. These slowed down the data collection process and the research team had to resort to other sampling procedures as described below. Hence, two sample selection methods were carried out to identify the sample for the study which are described in phase one and phase two sampling methods below.

2.1.2.1 Phase 1: Random Sampling

Using list of names in the 33 postcodes selected, 1,000 retirees were selected for the study and 40 names (20 males and 20 females) for each postcode were randomly chosen to participate in the study. A total of 1,320 retirees' names and addresses within each postcode was selected for the study (oversampled by 10 names). The selected name list was used as study sample.

2.1.2.2 Phase 2: Quota Sampling

Due to unforeseen circumstances during fieldwork and with consent from KWAP, the study sample was revised and random sampling was changed to quota sampling in Phase 2. The list of retirees' names in the 33 postcodes was used as the sampling frame. Twenty four names (12 males, 12 females) within the postcode were selected for each interviewer.

2.2 Data Collection

Data were collected using questionnaires developed for the study. Both questionnaires were pre-tested to ensure clarity of the questions. For pre-retirees, the questionnaire was developed for self-administered data collection and for retirees the questionnaire was developed for face to face interview.

2.2.1 Research Instrument

Data collection was conducted using structured questionnaire. The research instruments were developed based on theoretical framework established from the literature review. The questions were asked exactly as they were written, in the same sequence, using the same manner, for all interviews. This standardized questioning procedure is important to ensure the reliability of the data. The questionnaires included all questions in *Bahasa Melayu* and English. However, most interviews were conducted in the local language i.e. *Bahasa Melayu*.

In order to achieve the research objectives, two sets of questionnaires were developed to be administered among pre-retirees and retirees. Table 2.2-1 consists of sections in each set of questionnaires.

Table 2.2-1: Retirement preparedness questionnaire for pre-retirees and retirees

Section	Pre-retirees	Retirees
Section A	Respondent's Background	Respondent's Background
Section B	Work and Retirement	Work and Retirement
Section C	Retirement Preparedness	Attitudes and Worries in Retirement
Section D	Attitudes Towards Retirement	Life in Retirement
Section E	Productive Activities	Productive Activities
Section F	Health Information	Health Information
Section G	Economics	Economics
Section H	Financial Well Being	Psychology, Religiosity/ Spirituality
Section I	Life Satisfaction	Activities of Daily Living
Section J	–	Health Related Quality of Life
Section K	–	Life Satisfaction

Questionnaires were pre-tested to identify problems with the questions, such as missing responses category, spelling or grammatical mistakes, and to assess any difficulties. A pre-test was conducted prior to the data collection during *Perhimpunan IPesara Malaysia* which was held on 15 and 16 August 2017 at MAEPS, Serdang. A total of 79 pre-retirees and 78 retirees were involved.

2.2.2 Data Collection for Pre-retirees

For the pre-retirees, a half day workshop was planned for the data collection. In addition to researchers collecting data from the participants, the research team hoped the participants can also learn about ageing issues relevant to them. The planned workshop comprised of two sessions; first, data collection session, followed by 1.5 hours talk by MyAgeing™. Participants were provided with overview of population ageing, issues and challenges in old age and the need for people to plan for old age. The data collections were conducted in three phases as follows:

i. Phase 1: Two workshops were planned for the data collection. Invitations to data collection workshops were done by PSD. A total of 1,168 invitations were sent out. However, only 54 attended the first workshop on 27th November 2017 and 74 attended the second workshop on 19th December 2017.

ii. Phase 2: Eight data collection workshops were planned for the second phase. Requests for permission to conduct the study were sent to eight Chief Secretary of the selected ministries. However, only six ministries responded within the time given. Three ministries were willing to coordinate the data collection workshops, while the others requested for drop off and pick up method.

iii. Phase 3: A drop off and pick up method was used in this phase. Six ministries/agencies participated using this data collection method. For each of the ministry/agency, 120 questionnaires were distributed and to be completed within two weeks.

Participation in the study was on voluntary basis. Consent was obtained from them at the beginning of the workshop or before answering the questionnaire. A letter of informed consent was also attached to the questionnaire as evidence that he or she agreed to the procedure and was aware of any risks that might be involved. Confidentiality was guaranteed with responses being treated as anonymous and could not be traced back to a respondent.

The data collection activities for pre-retirees are summarized in Table 2.2-2. There were 128 respondents for the first phase, 337 for the second phase and 398 for the third phase resulted in 863 total respondents.

Table 2.2-2: Data collection (Pre-retirees)

Ministry/Agency	State	Method	Date	Selected samples (Invited/ Distributed)	Response number, n (response rate)
Phase 1					
1. Public Service Department	Putrajaya	Workshop	27-Nov-17	368	54 (14.7%)
		Workshop	19-Dec-17	800	74 (9.3%)
Phase 2					
2. Ministry of Education	Putrajaya	Drop off/ pick up	29-Jan-18	180	145 (80.6%)
3. Ministry of Agriculture	Putrajaya	Workshop	15-Feb-18	240	62 (25.8%)
4. Ministry of Home Affairs	Selangor	Workshop	22-Mar-18	120	45 (37.5%)
5. Ministry of Science Technology & Innovation	Selangor	Workshop	23-Mar-18	180	85 (47.2%)
Phase 3					
6. Ministry of Natural Resources and Environment	Kuala Lumpur	Drop off/ pick up	12-Mar-18	120	77 (64.2%)
7. Kuala Lumpur City Hall	Kuala Lumpur	Drop off/ pick up	13-Mar-18	120	37 (30.8%)
8. Ministry of Defence	Kuala Lumpur	Drop off/ pick up	14-Mar-18	120	112 (93.3%)
9. Department Of Statistics	Putrajaya	Drop off/ pick up	19-Mar-18	120	107 (89.2%)
10. Ministry of Urban Wellbeing, Housing and Local Government	Putrajaya	Drop off/ pick up	27-Mar-18	120	40 (33.3%)
11. Ministry of Energy, Green Technology and Water	Putrajaya	Drop off/ pick up	28-Mar-18	120	25 (20.8%)
12. Ministry of Works	Kuala Lumpur	Drop off/ pick up	12-Mar-18	120	0 (0%)
Questionnaires distributed				2,728	863 (31.6%)
Target sample				1,000	863 (86.3%)

2.2.3 Data Collection for Retirees

Data collection was done by way of face-to-face interviews by trained enumerators, using a set of questionnaires specifically developed and tested for the project as research instrument. Participation of respondents was voluntary. Consent was obtained from them at the beginning of the interview. A letter of informed consent was also attached to the questionnaire as evidence that he or she agreed to the procedure and was aware of any risks that might be involved. Confidentiality was guaranteed with all responses treated as anonymous and could not be traced back to a respondent. Since data collection was done through face to face interview, the interviewers were trained to ensure quality of data.

2.3 Training of Enumerators

Enumerators for retirees' data collection were trained for two days to ensure that the research instrument was fully understood by everyone. The training was conducted to brief about the project as well as to go through the research instrument and also the research methodology.

Upon completion of training, enumerators were provided with the following items: assigned name list; permission letter to conduct fieldwork from PSD, KWAP and MyAgeing™; set of questionnaires; and tokens distributable for respondents who completed the interview. Table 2.3 summarises the pre-fieldwork activities of the current study. The second enumerator training was held to explain to the enumerators about the change in sample selection.

Table 2.3: Details of pre-fieldwork activities

Details of Enumerators	Phase 1 (Random sampling)	Phase 2 (Quota sampling)
Training dates	6th & 11th October 2017	5th December 2017
No. of Enumerators	34 persons	27 persons
Distribution of Questionnaires	11th October 2017	5th December 2017

2.4 Fieldwork

The fieldwork for retirees was conducted in two phases as follows:

i. Phase 1: Enumerators were requested to select the postcodes they intend to collect the data. They started the fieldwork after receiving sampling sheets which consisted of retirees' name, sex and address. All activities during fieldwork were reported on the sampling sheets. After eight weeks of data collection, most of the enumerators reported similar reasons for not getting respondents in their chosen area (Retirees were not home, had moved, refused to participate, etc.). Hence, the change in the sample selection method to expedite the data collection process.

ii. Phase 2: A quota sampling was used in this phase. New sampling sheets of the chosen retirees (12 males, 12 females) were given to each enumerator who were persistent to continue with the data collection. Enumerators were given the opportunity to choose more than one postcode with regards to the quota of only 24 respondents in each postcode.

Table 2.4 summarizes activities related to data collection for both Phase 1 and Phase 2. A total of 747 government retirees living in Klang Valley were successfully interviewed out of 1,750 addresses visited. Those who were not successfully interviewed were due to change of address, unwilling to be interviewed and away on holiday.

Table 2.4: Data collection (Retirees)

Sampling of Retirees	Phase 1 (Random sampling)	Phase 2 (Quota sampling)
Duration of Fieldwork	11th Oct. 2017 – 7th Dec. 2017 (8 weeks)	7th Dec. 2017 – 9th Feb. 2018 (9 weeks)
No. of Postcodes Selected	33	33
Postcodes Visited	31	30
Total House Visited	542	1,208
Unsuccessful Visit	**315**	**688**
Successfully Interviewed	**227**	**520**
Response rate	**42%**	**43%**

2.5 Issues and Challenges in Data Collection

The study encountered several issues and challenges during data collection for both pre-retirees and retirees which required changes in sample selection and methodology of data collection.

2.5.1 Pre-retirees

The main challenge was poor response and low participation rate which occurred in all areas during data collection, as described below:

i. Phase 1: The main challenge in data collection process for pre-retirees was poor participation from the invitees even though the invitation was from PSD. A total of 1,168 government employees were invited to the workshop via PSD and only managed to get 54 respondents out of 368 invitations for the first workshop, and 74 respondents out of 800 for the second workshop. These represented a response rate of 14.7% and 9.3% respectively.

ii. Phase 2: The challenge encountered was to get permission from the respective ministries due to bureaucracy in administrative procedures and time constraints faced by research team. Ministry of Women, Family and Community Development and National Population and Family Development Board were also dropped since the approvals were obtained after the data collection deadline. The Ministry of Health required in-house ethical approval for the research to be conducted among their employees. The procedure would take at least three months. Due to time constraint, the ministry was dropped from the data collection list. Ministry of Finance did not entertain our request, thus was also dropped from the data collection list.

iii. Phase 3: A total of 465 respondents completed the survey in Phase 1 and Phase 2 of data collection. Hence, the drop off and pick up method was conducted in Phase 3 to reach the target respondents. Seven ministries/agencies were approached and they were willing to participate. However, one ministry failed to return the completed questionnaires.

2.5.2 Retirees

The study encountered challenges in the fieldwork despite being provided with listings which consisted of retirees' names and addresses. There were challenges encountered in the fieldwork during data collection process which were beyond the control of the researchers and had slowed down the process of data collection for the retirees.

The ultimate challenge was finding the respondents to interview. In general, two major issues had caused the challenge of increasing retirees' participation in the study.

i. Problems with the retirees listing

The listing given as the sampling frame had its own problems as described below:

a. Duplication of names

About 12.47% of names in the retirees list which were randomly selected in Phase I were duplicates.

b. Not up-to-date information on retirees

About 8.03% addresses in Phase 1 and 1.6% in Phase 2 could not be traced in the specified postcodes. There was one case of mismatch address and postcode where the address was actually not found in the postcode designated for the retiree's details. About 10.53% of retirees in Phase 1 and 7.56% in Phase 2 had moved/relocated to new (unknown) addresses –e.g. moved to other residential areas or other states. Thus, 6.37% addresses in Phase 1 and 0.29% in Phase 2 were without occupancy and their houses in such addresses were vacant during the visits. In addition, 1.39% and 0.15% of retirees' addresses in Phase 1 and Phase 2 were rented out and currently occupied by their tenants – as explained by the tenants during the visit. In fact, regrettably, 1.39% and 0.87% of the retirees in Phase 1 and Phase 2 respectively were reported deceased for almost eight months prior to the house visit.

ii. Issues related to the retirees

Issues related to retirees were mostly due to their absence during the visit or their refusal to participate in the study. There were about 41.83% of retirees in Phase 1 and 72.97% in Phase 2 who were not home during the visits. This was indicated by unanswered calls at the doors or were reported to have gone somewhere (went out, on a holiday, *umrah* etc). In such cases, their houses will be visited/attempted thrice before being delisted as participants. The second biggest challenge was the unwillingness of the retirees to cooperate. About 16.9% of retirees in Phase 1 and 16.13% in Phase 2 refused to participate in the survey although enumerators had proof of permission letter of the project. In addition, there were a few cases of retirees who were sick. 0.83% and 0.44% in Phase 1 and Phase 2 respectively, reported that they were not able to participate due to health problems (dementia, fever, bedridden etc.)

In short, the major challenges encountered in the fieldwork were the difficulties in finding the respondents due to the weaknesses of the listing itself, refusal and absence of the retirees. These challenges were beyond the control of the researchers and had slowed down the data collection process and led to a higher cost incurred during data collection.

Findings for pre-retirees

chapter three

FINDINGS FOR PRE-RETIREES

3.1 Profile of Pre-retirees

3.1.1 Socio-Demographic Profile

A total of 863 government employees from 11 agencies were involved in the data collection. Although the target sample was those aged 40 and older, there were 20.4% of the respondents were below 40 years old. The questionnaires were distributed by the respective officers in charge of human resource affairs and researchers had no control over whom the questionnaires were distributed to even though the officers had been briefed of the criteria of the sample needed for the study. Profile of respondents below 40 years old were similar to those in the age group of 40 to 49 years, where more than half were females, two-thirds were married and had tertiary education. Based on similarities in the socio-demographic profile, this group was included in the analysis. The inclusion of this group of respondents in the analysis enriched our knowledge and provided insights into how the younger workers view retirement.

There were 47.9% respondents aged 40 to 49 and 29.7% aged 50 and older. They comprised of slightly more female employees compared to male employees. Majority of the respondents were married with a small percentage were still single and divorced. Majority of the respondents were Malays and Muslims. Almost half of the respondents (48.8%) had tertiary education and slightly more than one-third had secondary or lower education (Figure 3.1-1).

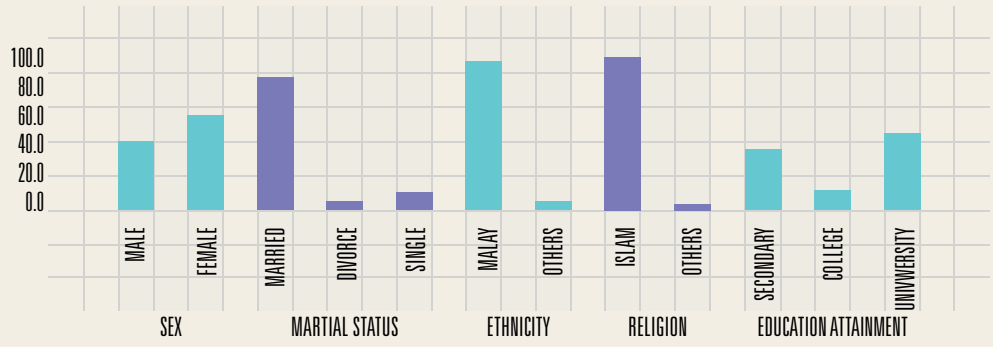


Figure 3.1-1: Profile of respondents (Pre-retirees)

There were 5.4% respondents living alone while the others were living with spouses, children or other family members. Figure 3.1-2 shows the percentage of respondents with the following household members living together: Spouse (80%), children (71%), and parents or parents in law (11.8%). Other household members included siblings, grandchildren, friends, relatives as well as grandchildren. There was a total of 3,421 household members residing with about 95% of the study respondents and 1,907 of them were school-aged children. The mean household size was four persons, similar to the average household size of Malaysians as reported in the Fifth Malaysian Population Family Survey (MPFS-5) 2014. Male and older respondents tended to have slightly larger household size compared to female respondents.

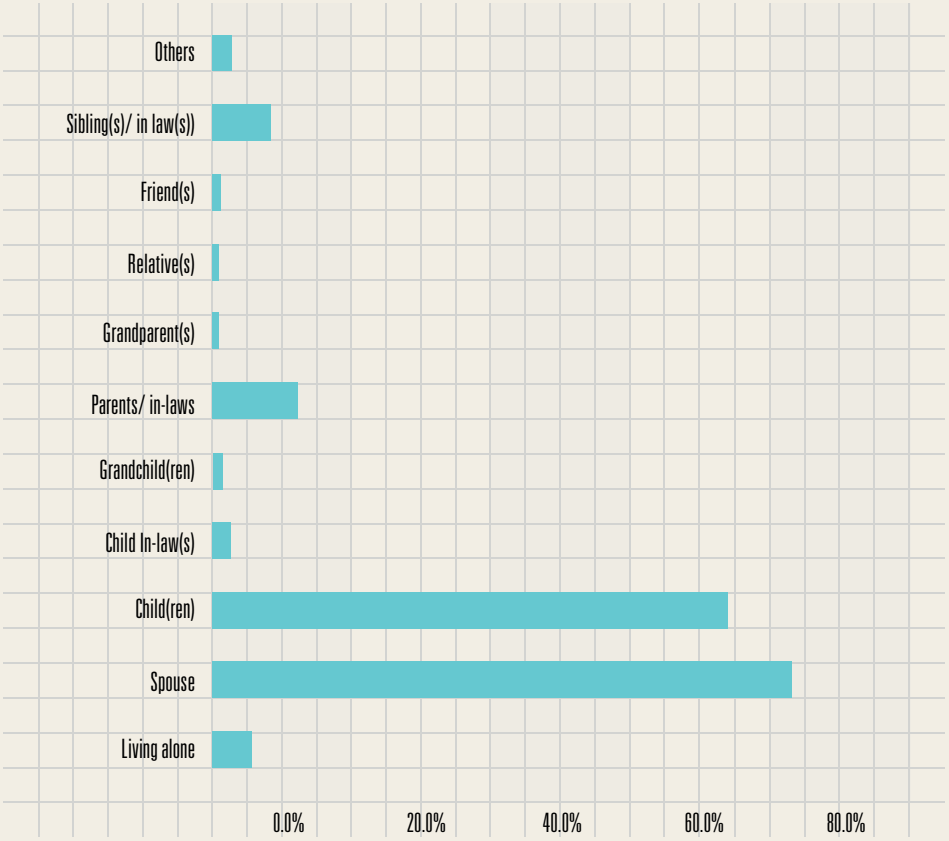


Figure 3.1-2: Household compositions

The number of dependents such as school-aged children, parents and special children in the households had bearing on the financial burden of household heads. The mean number of children still studying in the household by selected background is shown in Figure 3.1-3. There were 64% respondents who had one to four children who were still studying. Almost half of the younger respondents had no children. The percentage of those in the 50's with no children was slightly higher compared to those in the 40 to 49 age group. The middle aged (40 to 49 years old) were in the expanding family stage with the most number of children still studying. In addition to having school-going children, there were 51% respondents who had dependent parents.

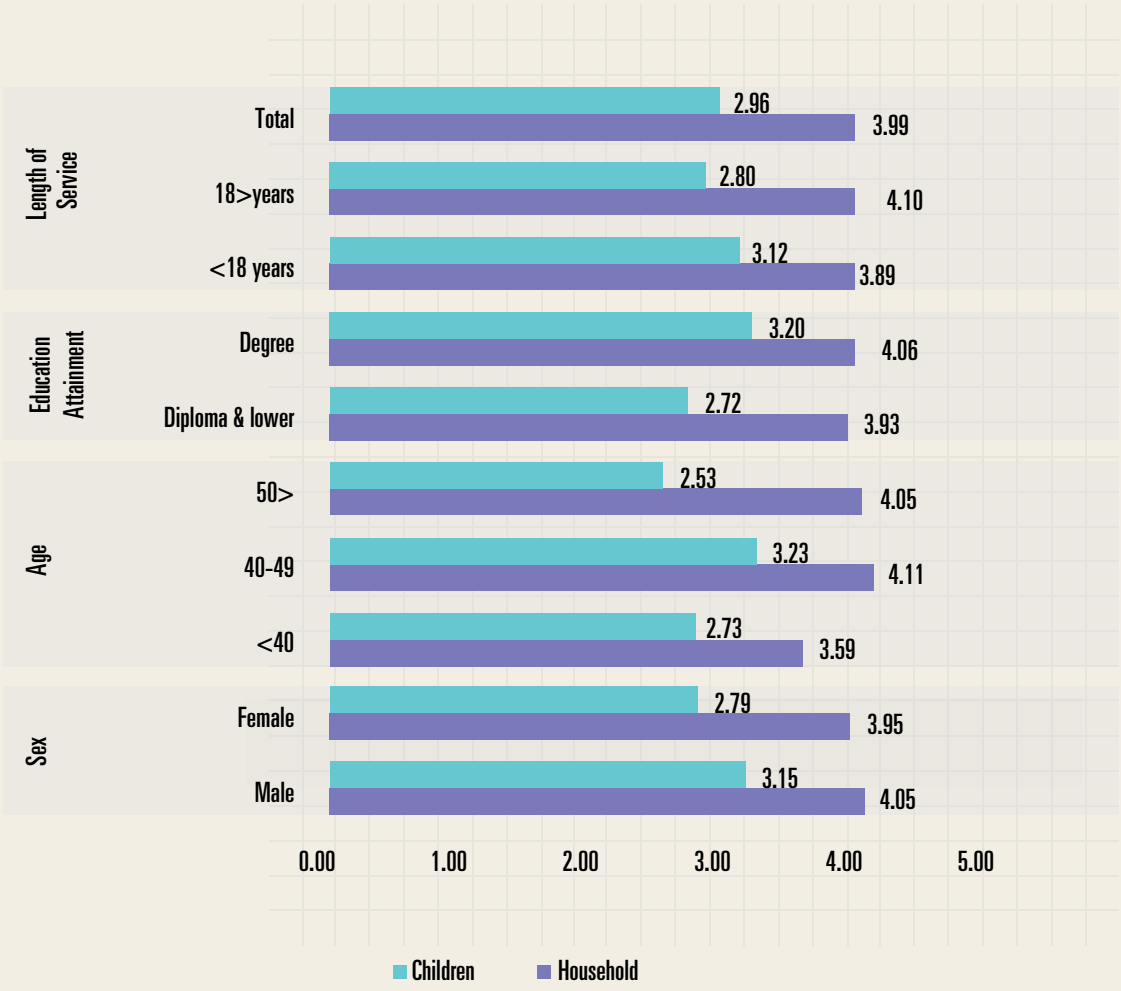


Figure 3.1-3: Mean household size and number of school-going children

The percentage of respondents with dependent parents by selected group is shown in Figure 3.1-4. Almost three quarters of the younger age group still had parents who were dependent on them. There was also higher percentage of female respondents compared to male respondents who had dependent parents. The younger age group and those who had just started their career tended to have dependent parents.

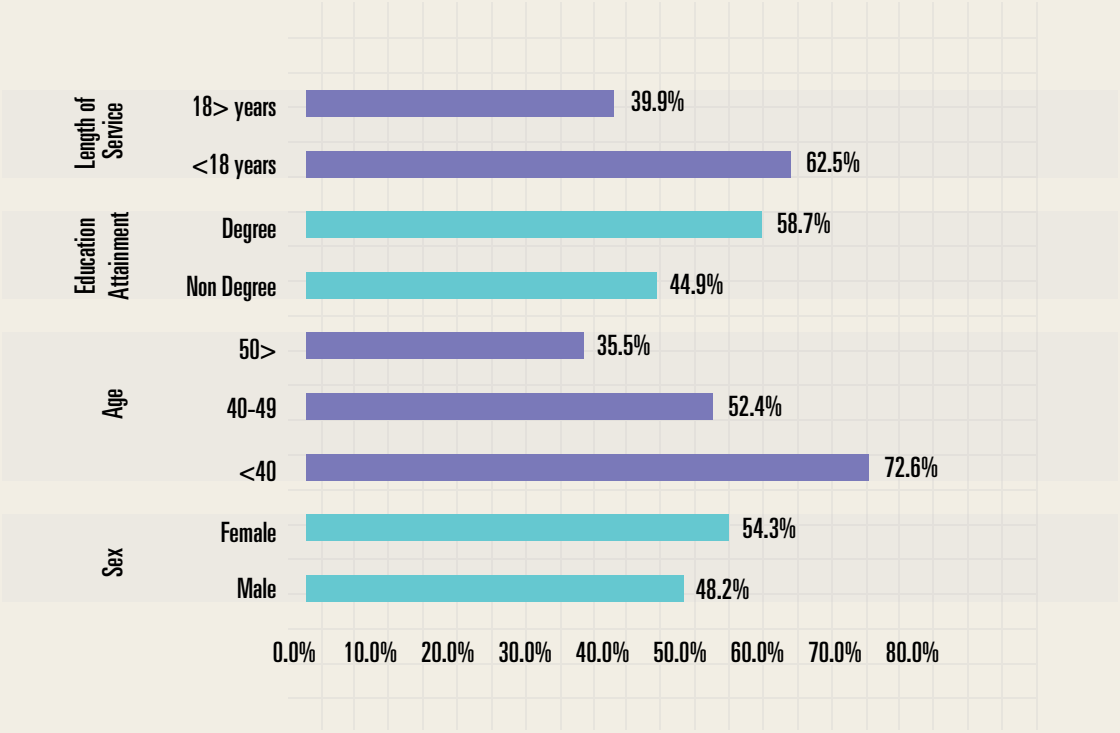


Figure 3.1-4: Percentage of respondents with dependent parents

3.1.1.1 Living Arrangement

The respondents' living arrangements will determine the demand for resources as well as potential care and financial support available in the family. Figure 3.1-5 shows that majority of respondents lived within a nuclear-family household (i.e. consisted of parents and children). This figure is slightly lower than the 66.4% nuclear-family households in the MPFS-5. There were 5.6% respondents living alone and 6.6% respondents were living in three generation households comprising of grandparents and grandchildren. A slightly lower percentage were living in two generation households with parents. The composition of individuals living in a household can be a potential resource or can also be a financial burden to the heads of households. The number of persons living together will determine the demand for resources especially financial resources. Those living in two generation households (with children) may need to seek for external support for child care.

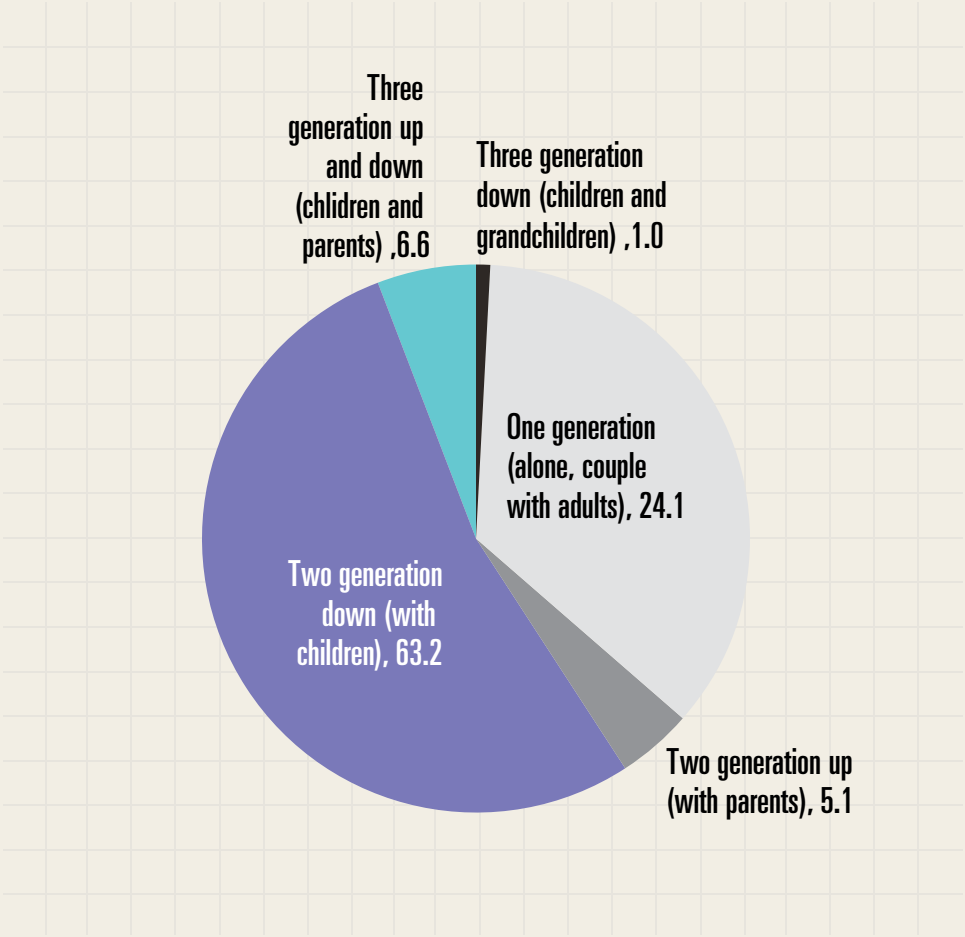


Figure 3.1-5: Living arrangements

3.1.1.2 Work

The respondents' present position by selected background is shown in Figure 3.1-6. About one-third of the respondents were in the professional group followed by the technical group. A higher percentage of female respondents were in the clerical group compared to male respondents and in contrast a higher percentage of male respondents were in the technical profession compared to female respondents. The traditional sex work differentiation still exists in the government. The older age group tended to be in lower ranking positions compared to the younger age group. The figure clearly shows those with diploma or lower education attainment were in the technical, clerical and support sectors while more than two-thirds of those with tertiary education were in professional positions.

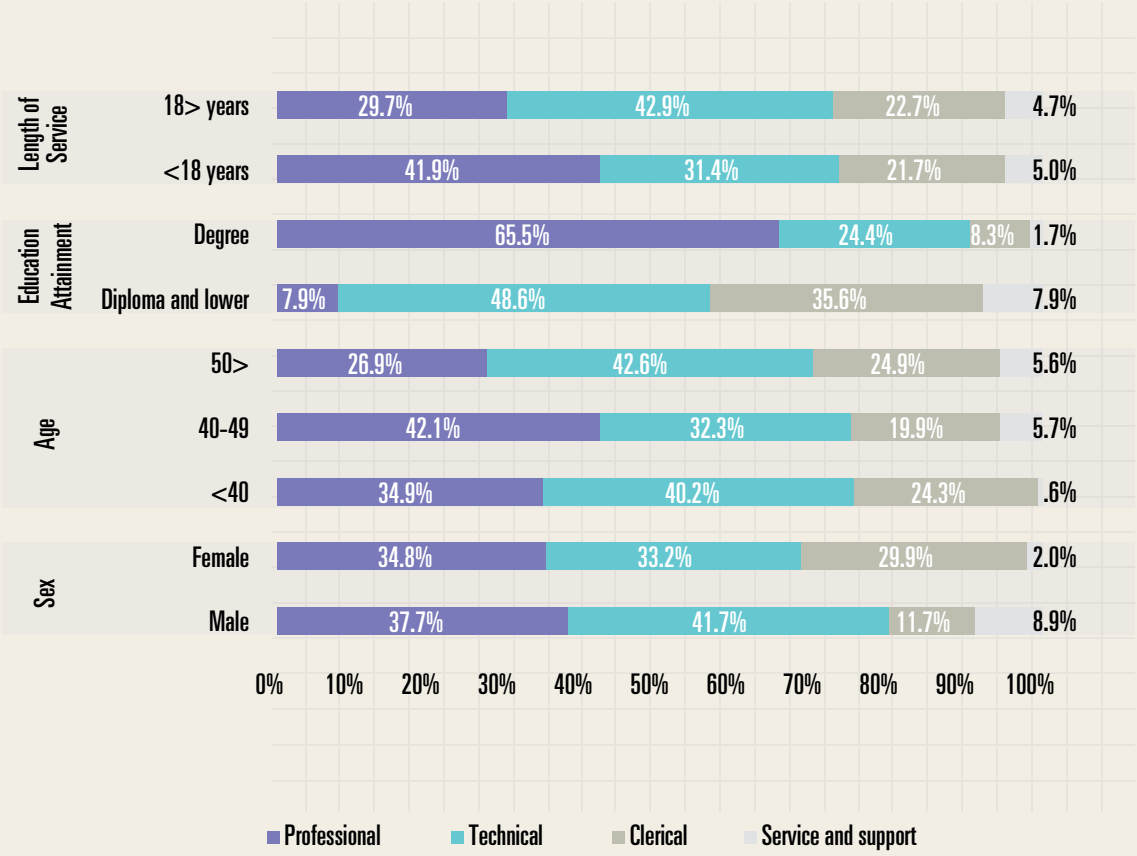


Figure 3.1-6: Present position of respondents by selected background

Figure 3.1-7 shows the mean length of service by selected background. On the average, the respondents had worked for about 20 years. Male respondents tended to have worked slightly longer compared to female respondents. As expected, those in the older age group had worked the longest compared to the younger age group. The diploma holders had also worked much longer compared to the degree holders. Assuming people started working at the age of 25, majority of government employees would have worked for 35 years before retirement. The increasing number of degree holders who would be promoted and reached the highest salary scale prior to retirement would affect the value of pension received.

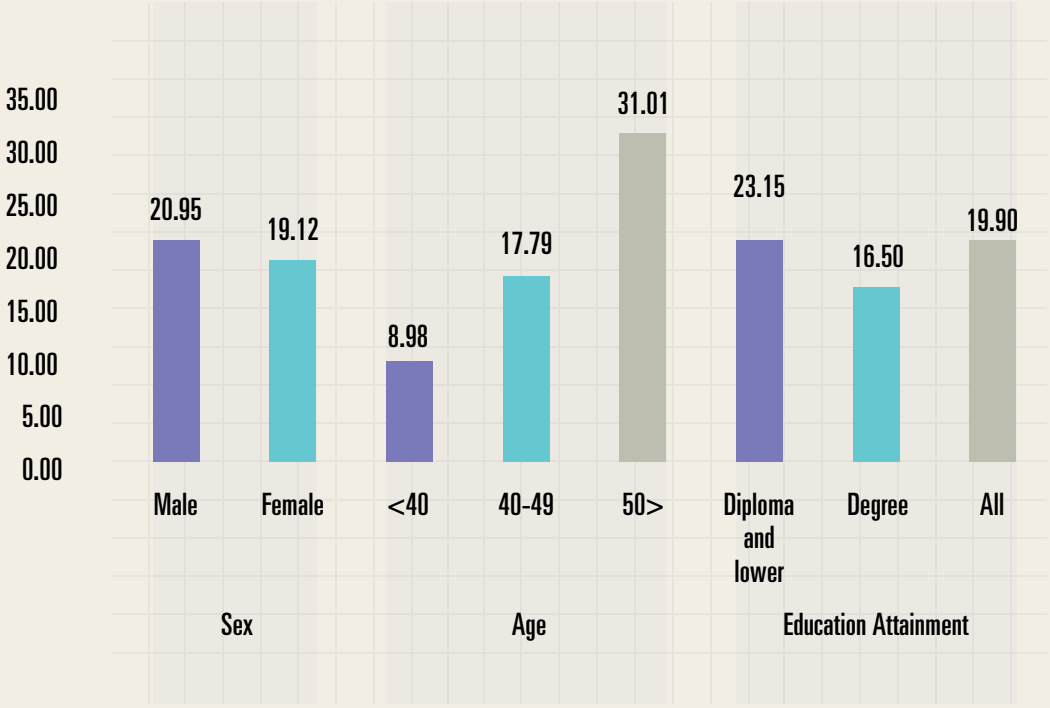


Figure 3.1-7: Length of service by selected background

3.1.1.3 Retirement Option: Age Plan to Retire and Retirement Option

Eighty percent of the respondents planned to retire at the age of 60. The highest percentage who wished to retire at the age of 60 were male respondents followed by those in the age group of 50 and older. Nevertheless there were few who wished to retire before the mandatory retirement age especially among female respondents. Only 50% of the female respondents planned to retire at 60 while the other half planned to retire earlier. Asked about types of retirement, majority opted for the mandatory age of retirement while one-fifth planned to take optional retirement. Approximately, 24% female respondents planned to take optional retirement compared to only 16% of the male respondents. A slightly higher percentage of the younger age group planned to opt for optional retirement compared to those in the age group of 50 and older. In short, majority of pre-retirees did not plan to work after mandatory retirement age.

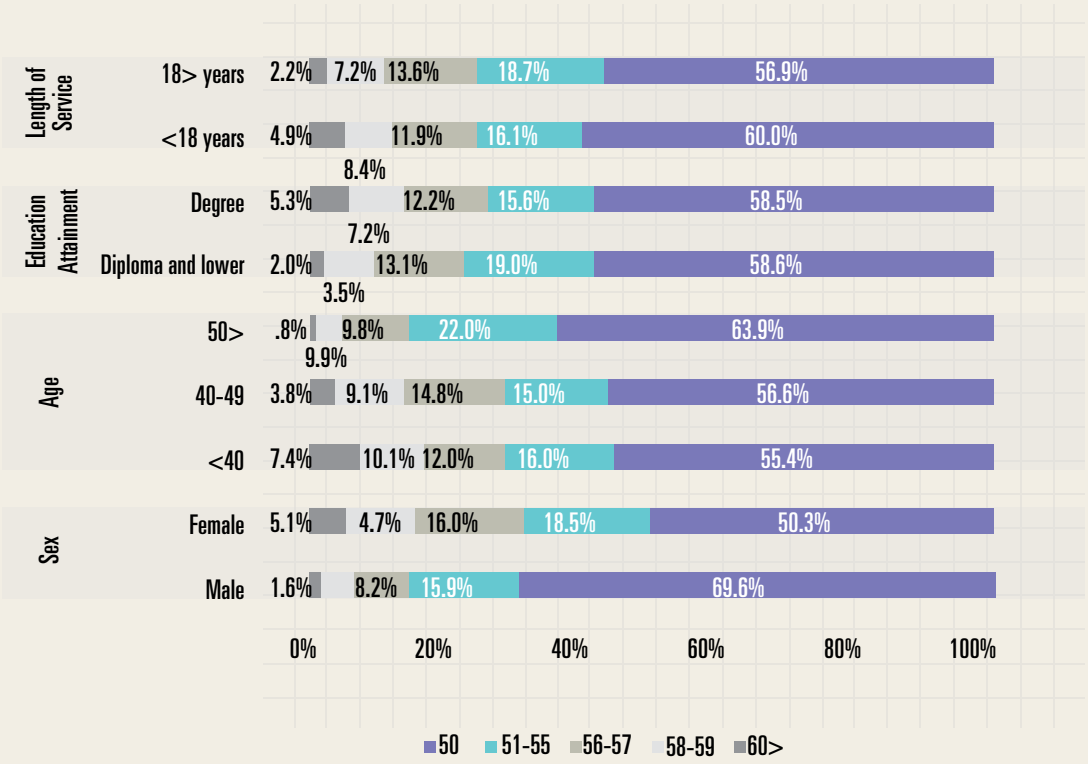


Figure 3.1-8: Retirement age plan of respondents by selected background

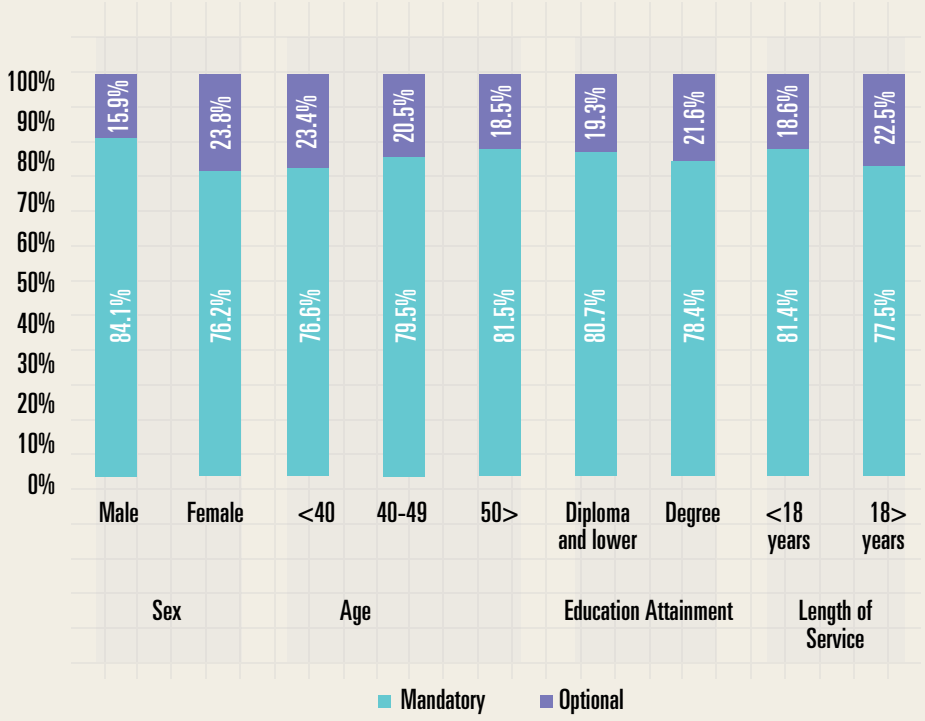


Figure 3.1-9: Retirement option by selected background

3.1.2 Economic Profile

The respondents of this study comprised of government employees in Klang Valley who worked full time. Nevertheless, some employees were reported to have supplementary income. There were about 20% of respondents involved in income generating activities. Figure 3.1-10 shows the percentage of those involved in additional income generating activities by selected background. Result shows that a higher percentage of male compared to female respondents were involved in supplementary income generating activities. A higher percentage of employees among the younger age group, non-degree holders and those in service less than 18 years were found to be involved in additional income generating activities. The type of supplementary work reported were related to retail activities followed by provision of service such as being a gardener, driver and in educational sector (Figure 3.1-11). Several respondents reported that they assisted their spouses who ventured into small businesses.

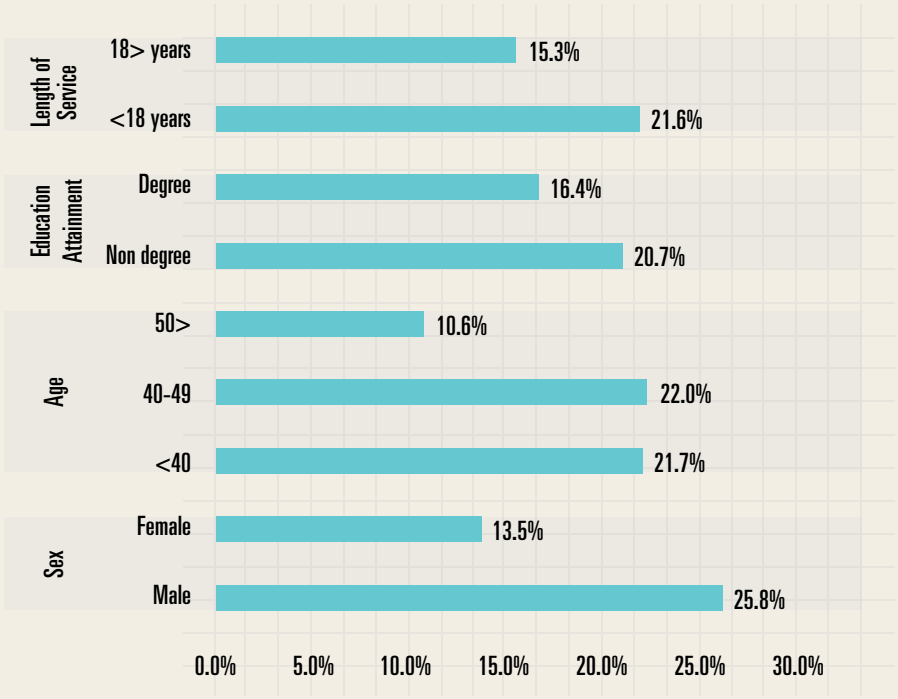


Figure 3.1-10: Percentage of respondents involved in income generating activities by selected background

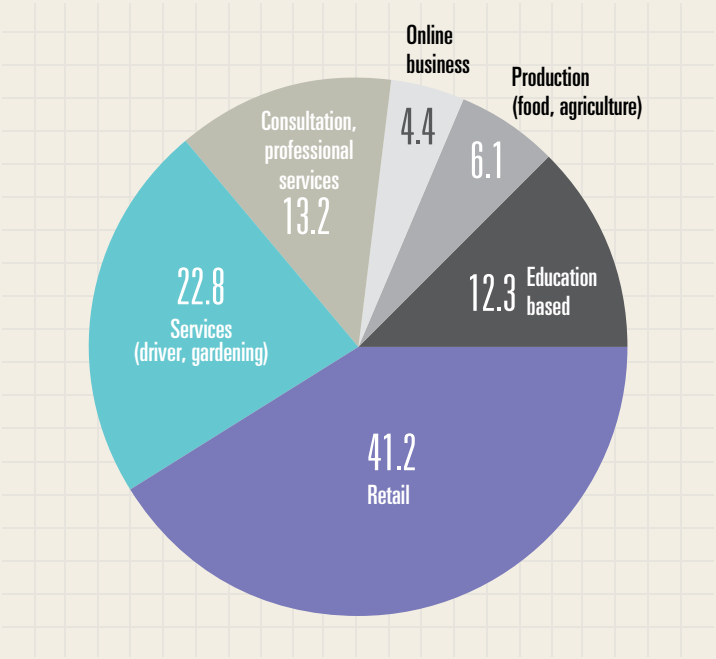


Figure 3.1-11: Percentage of respondents by types of income generating activities

3.1.2.1 Spouses' Employment Status

Figure 3.1-12 shows the spouses' employment status by selected background. About 20% of male respondents reported that their spouses were not working or were full time homemakers compared to only less than 10% among female respondents. More than one-third of the respondents whose spouses worked in the government sector. There were 46% male respondents whose spouses worked in the government sector compared to about 16% who were employed in the private sector. A higher percentage of female respondents spouses worked in the private sector compared to spouses of male respondents. Respondents with spouses working in the government sector are assured of better social protection in old age since both will have pensions. On the other hand, those with unemployed and self-employed spouses had no social protection in old age and relied on respondents' pension in old age. For those whose spouses were working in private sector, they normally have the Employee Providence fund (EPF) for old age, though much have been said about the inadequacy of EPF to support old age living. Basically, to some, a pension may not be sufficient to fully support old age living but, at least government employees will have regular source of money to support retirement life. Retirement life for government employees are much better than those without pension and rely on EPF or contribution from children. The availability of derivative pension also provides some financial security to spouses upon the demise of the retirees.

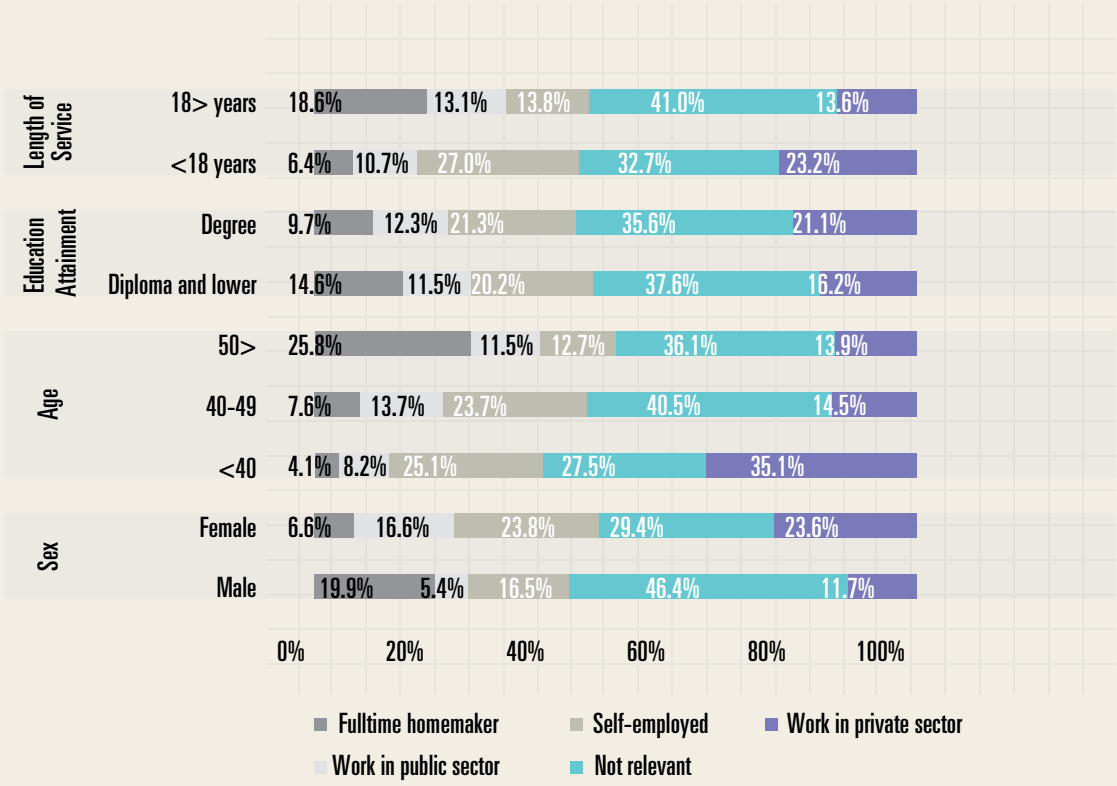


Figure 3.1-12: Spouse employment by selected background

3.1.2.2 Income

Respondents were asked to indicate if they received income from the listed sources. The percentage of respondents who received income from the listed sources are shown in Table 3.1-1. Though all received salaries, not everyone answered the questions and revealed the amount of salary received. The table presents the percentage and mean income among those who reported the amount received. The other sources of income received by respondents were income from rental (18.9%), dividend (10.6%) followed by welfare in the form of *Bantuan Rakyat 1Malaysia* (BRIM) (8.9%) and children's remittance (8.5%). A higher percentage of male respondents, older age group, non-degree holders and those who had worked for more than 18 years had income from rental, indicating the older age group had the opportunities to invest in assets which were more affordable then compared to now. There were also differences in the percentage of respondents who received income from businesses by different background. A higher percentage of male respondents, younger age group, non-degree holders and those who worked less than 18 years reported income from businesses compared to their counterparts. This is in line with the percentage of respondents who indicated their involvement in additional jobs presented earlier. Though the study did not ask for reasons why they were involved in additional jobs, it can be expected that they had to do those jobs to supplement the salary received.

About 10% respondents reported income from interest or dividend from investments in the form of shares, unit trusts or savings. The small percentage reflected that the respondents did not have much investment in the form of financial instruments even among those in the age group of 50 and older. Those with tertiary education reported a slightly higher percentage and there was no difference in the percentage of those who received this income by length of service indicating those who have worked longer invested in financial instruments. This may be due to lack of knowledge and awareness regarding the importance of investing money to supplement income in old age. A small percentage of respondents also reported income from welfare mainly BRIM, pension/ derivative pension and children's remittance. Female respondents reported that they received a certain amount of money on a monthly basis from their husbands.

There were 59% respondents who had only one source of income while 26% had two sources and 10% had three sources of income. The rest (less than 5%) received income from more than four sources. The mean income received is also shown in Table 3.1-1. Mean income from the salary of the 660 respondents who reported their income was RM4,480.03. Mean income received by 138 respondents from property rental was RM742.03. Though the number who reported income from interest and dividend, pension/ derivative pension, SOCSO and welfare/ allowance was less than 100, the mean was rather high compared to other sources. Having different sources of income through old age will help supplement the pension received. As such government employees need to plan ahead to invest their income through various financial instruments available in the market to supplement their pension later.

Figure 3.1-13 shows salary, total income and household income categories of the respondents. Other sources of income supplemented the salary. Based on the household income of respondents in this study, more than half of them were in the RM6,000 and higher income bracket.

Table 3.1-1: Percentage of respondents receiving and mean income from various sources

Sources of income	Sex		Age			Education attainment		Length of service		Income	
	Male	Female	<40	40-49	50>	Non-Degree	Degree	<18 years	18> years	Mean	n
Salary/ Wages	93.4%	97.1%	97.7%	94.6%	95.8%	95.5%	95.6%	96.4%	94.5%	4,480.03	660
Business profit	10.1%	5.1%	9.9%	8.1%	3.8%	9.9%	4.4%	7.5%	6.8%	940.19	54
Agricultural activities	3.7%	1.9%	1.2%	3.4%	2.5%	1.9%	3.5%	1.4%	4.2%	786.50	20
Rental	19.4%	18.6%	9.2%	20.4%	23.5%	19.0%	18.8%	13.4%	25.3%	742.39	138
Interest and dividend	12.1%	9.5%	9.2%	13.2%	7.1%	8.2%	13.1%	10.9%	10.2%	2,104.50	60
Pension/ derivative pension	2.0%	1.9%	.6%	1.5%	3.8%	2.6%	1.2%	1.1%	2.9%	2,178.89	9
SOCSO	0.0%	.8%	0.0%	.7%	.4%	.7%	.2%	.5%	.5%	1,460.33	3
Welfare/ allowance	8.9%	8.5%	4.0%	11.5%	7.1%	7.5%	9.9%	9.1%	8.1%	1,090.00	61
Children's Remittance	9.8%	7.6%	.6%	4.7%	20.5%	13.2%	3.7%	2.1%	16.0%	559.02	61
Other sources of income	5.5%	5.7%	3.4%	6.1%	6.3%	6.0%	5.2%	5.2%	6.0%	1,845.68	40

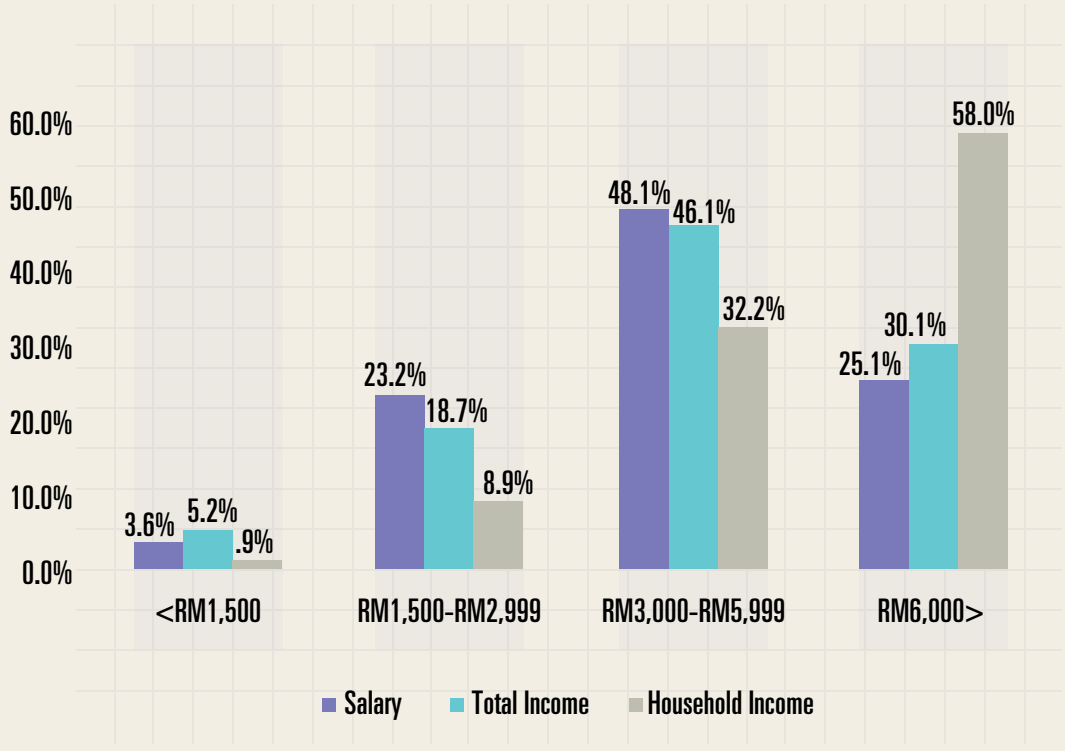


Figure 3.1-13: Salary, total income and household income categories

3.1.2.3 Expenditure

Respondents were asked to indicate how much their monthly expenses were, using the expenditure categories used by the DOSM. The number of respondents who provided the figure, minimum, maximum, mean and Standard Deviation (SD) is shown in Table 3.1-2. The highest mean expenditure reported by a majority of respondents were housing followed by food. Almost 70% respondents reported expenditure on food away from home and the mean was almost half of mean expenditure of food at home. Interesting enough the maximum amount expenditure for food away from home was higher than that offood at home. Expenditure on health was small with the availability of public health services accessible to government employees. More than half of the respondents (52%) reported expenditure on instalment payments with mean expenditure of RM917.13 and 57% reported making monthly salary deduction for savings with minimum of RM20.00 to maximum of RM3,000.00. The mean monthly instalment payment was about 20% of the mean salary of the respondents in this study. The expenditure pattern generally reflected the general issues among those living in urban areas mainly housing, food and instalment payment.

Table 3.1-2: Descriptive statistics on expenses

Types of expenses	n	Min	Max	Mean	SD
Housing	538	50	5,000	1,008.39	761.66
Food	680	50	3,000	671.36	508.73
Food away from home	594	20	4,000	328.07	319.45
Transportation	646	20	2,600	383.06	291.59
Education	370	10	5,000	479.15	512.10
Health	411	2	3,000	279.34	320.74
Entertainment and recreation	325	10	2,000	241.42	262.30
Instalment payment	455	50	5,000	917.13	593.21
Communication	623	10	5,000	177.81	233.34
Utilities	599	5	1,500	232.68	184.40
Clothing and footwear	389	10	2,000	217.28	226.98
Tobacco and alcohol	54	50	1,500	240.74	282.69
Monthly salary deduction for saving	494	20	3,000	447.03	450.91
Other expenditure	109	2	8,750	801.42	1,166.90

Table 3.1-3: Mean expenses by selected background

Types of expenses	Sex		Age			Education attainment		Length of service		All
	Male	Female	<40	40-49	50>	Non-Degree	Degree	<18 years	18> years	
Housing	629.88	627.57	478.13	758.60	521.19	373.55	898.95	654.91	603.06	630.10
Food Expenses	818.15	708.16	546.53	805.05	821.14	638.27	878.30	680.73	837.26	755.63
Transportation	298.44	278.23	270.49	310.98	260.04	242.4	333.72	294.41	279.04	287.06
Instalment payment	491.52	478.60	363.34	561.37	432.86	356.19	618.48	473.00	495.43	483.73
Communication	138.80	120.78	92.49	148.59	120.17	108.24	149.68	125.20	132.43	128.66
Other Expenses	1,013.84	1,097.09	752.36	1,186.62	1,071.82	749.27	1,391.31	987.51	1,145.37	1,063.05

3.1.2.4 Assets

With increasing life expectancy, retirees are expected to live longer years in retirement. The amount of pension may not be sufficient to cover living expenses especially with deteriorating health status. One needs to accumulate assets and savings for old age to supplement the pension received. The study gathered information on estimated value of assets and savings owned by the respondents and the percentage of respondents who had savings and assets as shown in Table 3.1-4. There were 70% respondents who owned a house followed by 68.8% who indicated they had savings. The data shows that the percentage of female respondents with savings was higher compared to that of male respondents. A higher percentage of older respondents, those with degrees and been in service for more than 18 years also reported having savings compared to their counterparts. Less than half of the respondents except those degree holders were able to provide cash value of their insurance policy. In addition to owning a house, savings and cash value of insurance policy, smaller percentages indicated they had assets in the form of shares or unit trusts, land, gold and property for rental. The value of their assets is also shown in Table 3.1-4. The highest mean value of the property was house followed by land. The mean value of total assets by selected background is shown in Figure 3.1-14. The highest percentage who reported having assets were those in the age group of 50 and older, degree holders and those who had worked for more than 18 years. Time played an important role in enabling the respondents to accumulate assets. The lowest percentage with assets was the youngest age group (below 40), non-degree holders and those who worked for less than 18 years. The highest mean was among the degree holders with the non-degree holders reported the lowest mean of assets. Female respondents tended to report slightly higher mean of assets compared to male respondents.

Table 3.1-4: Percentage of respondents with assets by selected background

Types of assets	Sex		Age			Education attainment		Length of service		All	Mean
	Male	Female	<40	40-49	50>	Non-Degree	Degree	<18 years	18> years		
Savings	64.8%	71.5%	69.4%	67.6%	71.1%	60.8%	76.7%	67.6%	70.1%	68.8%	44,382.94
Cash value of life insurance/ Family Takaful	44.8%	39.9%	34.0%	45.8%	41.0%	31.2%	52.2%	42.3%	41.2%	41.8%	172,216.92
Land	28.9%	26.6%	16.4%	29.6%	32.2%	23.4%	31.5%	23.6%	32.1%	27.5%	180,086.71
Own house	71.7%	69.4%	44.0%	73.3%	84.8%	65.1%	75.5%	61.6%	80.9%	70.3%	384,862.64
Rented house/ Shop lots	12.6%	11.3%	8.8%	12.8%	12.3%	10.2%	13.4%	9.1%	15.0%	11.8%	160,956.06
Bond/ Share/ Unit trust	22.0%	21.8%	12.6%	26.4%	20.9%	16.4%	27.3%	21.1%	22.5%	21.9%	47,066.15
Gold bar/ Jewellery	7.4%	27.7%	17.6%	23.6%	13.3%	14.2%	24.4%	22.1%	16.2%	19.4%	36,252.95
Farm or agricultural equipment	2.3%	.7%	.6%	1.0%	2.4%	.8%	1.8%	1.0%	1.7%	1.3%	101,083.33
Live stock	1.6%	.2%	.6%	.8%	.9%	.8%	.8%	1.0%	.6%	0.8%	9,500.00
Other types of assets	2.9%	1.6%	2.5%	1.6%	2.4%	1.3%	2.9%	1.5%	2.9%	2.1%	59,966.67

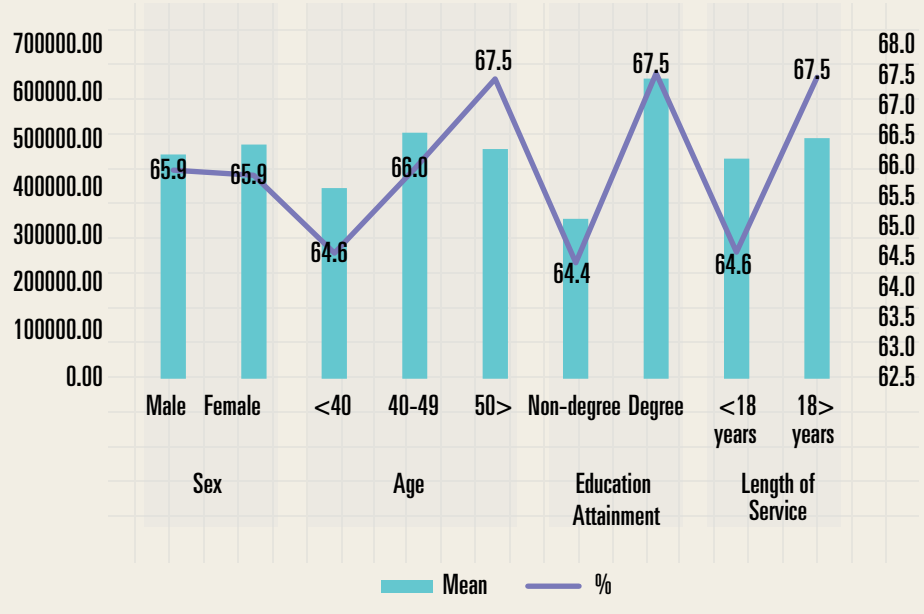


Figure 3.1-14: Mean value of assets by selected background

3.1.2.5 Insurance Ownership

Respondents were asked to indicate if they had any of the four types of insurance listed. The percentage who owned different types of insurance is shown in Figure 3.1-15. The highest percentage of insurance ownership was health insurance (42%) followed by life insurance (40%) and the lowest was educational insurance despite the fact that majority of the respondents still had school-going children. When insurance ownership was compared among the different groups, the percentage of female respondents with health and life insurance was slightly lower compared to male respondents. In contrast, a higher percentage of female respondents reported that they had educational insurance. The percentage of male respondents with property insurance was also high and this may be due to the fact that male respondents tended to be the house buyers as compared to female respondents. Among those in the youngest age group, more than 40% had health insurance but a very small percentage had education and property insurance. Since some were still single, educational insurance is not relevant to them. Less than half of respondents have health insurance, leaving more than half relying on government services for health care.

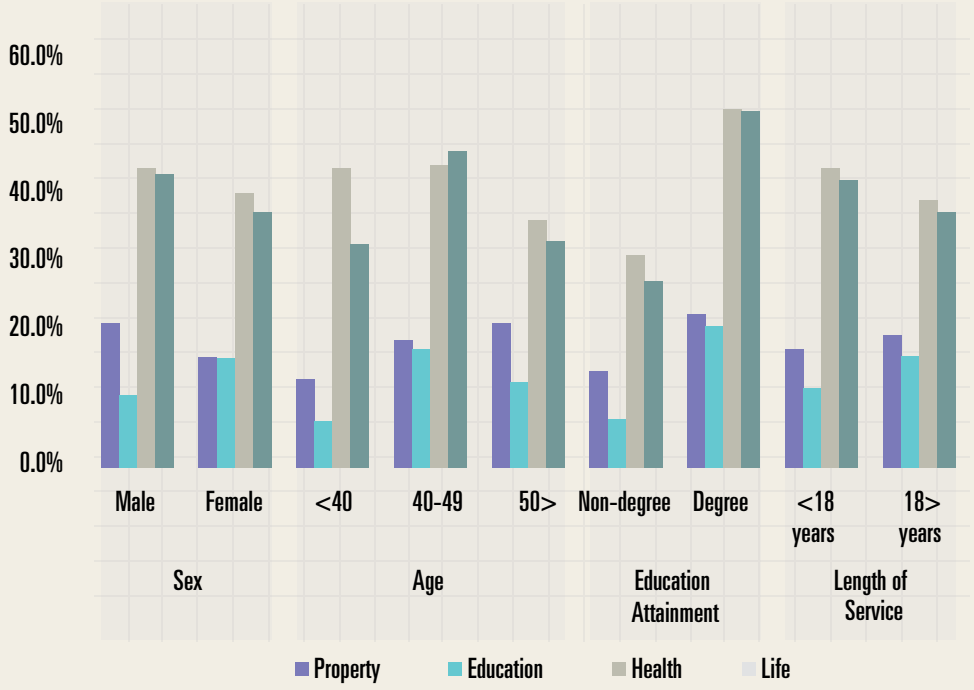


Figure 3.1-15: Percentage of respondents by different types of insurance

3.1.2.6 Debt

Having fixed income made the government employees the target of financial institutions which provide loan facilities. Respondents were asked to indicate whether they had outstanding loans and how much were the monthly repayments of the loans. Table3.1-5 shows the percentage of respondents with outstanding loan. Housing loan tops all other loans followed by car and personal loans. Car and personal loans can be considered as unproductive loans since both provide utility or satisfaction without any monetary return in the future. The percentage of respondents with *Amanah Saham Bumiputera* (ASB)/ *Amanah Saham Nasional* (ASN) loan was small compared to instalment loan and personal loan. The data clearly shows that most of the respondents were involved in consumption loans except for the housing loan.

Table 3.1-5: Percentage of respondents with different types of loans by selected background

Types of loans	Sex		Age			Education attainment		Length of service	
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years
Personal loan	53.7%	44.8%	38.2%	58.7%	38.4%	46.3%	50.7%	52.2%	44.1%
Car loan	56.5%	53.9%	49.0%	57.4%	54.3%	51.2%	58.6%	53.6%	56.2%
Housing loan	60.0%	57.4%	41.4%	62.5%	64.1%	52.5%	64.6%	53.3%	64.3%
Business loan	0.0%	.2%	0.0%	0.0%	.5%	.3%	0.0%	0.0%	.3%
ASB/ ASN loan	6.4%	9.6%	8.9%	9.9%	5.0%	5.5%	11.1%	9.6%	6.5%
Instalment purchase	11.0%	9.4%	6.4%	12.0%	9.1%	9.2%	10.8%	9.6%	10.5%

Figure 3.1-16 shows the percentage of respondents by number of outstanding loans. There were 24% respondents with no outstanding loans and at the extreme 4% had four types of outstanding loans. The number of outstanding loans reflected the financial commitment in addition to meeting daily needs. There were 49% respondents with two or three loans which comprised of mainly either housing, car or personal loan. The ability to obtain loans is often associated with salary and position. Government employees often become the target for loan disbursement since they have fixed income and stable employment. Figure 3.1-17 shows the debt ratio by job categories. Debt ratio was calculated by dividing the amount of monthly loan payment with the salary received. The figure clearly shows that the indebtedness cut across all job categories (Figure 3.1-17). Clerical and technical group tended to have higher debt ratio to the extent there were 14% who had 50% debt ratio indicating their monthly payment took up 50% of their monthly salary. Figure 3.1-18 shows that personal and car loans were the top consumption loans across all job categories. This is a very unhealthy situation and research conducted in developed nations revealed that over indebtedness not only affect productivity at the work place but also affects family and community relationship.

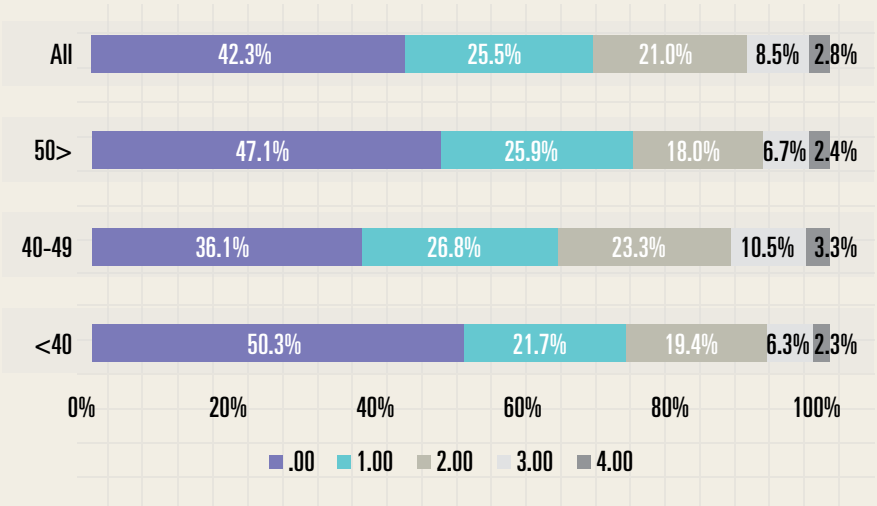


Figure 3.1-16: Percentage of respondents by number of outstanding loans

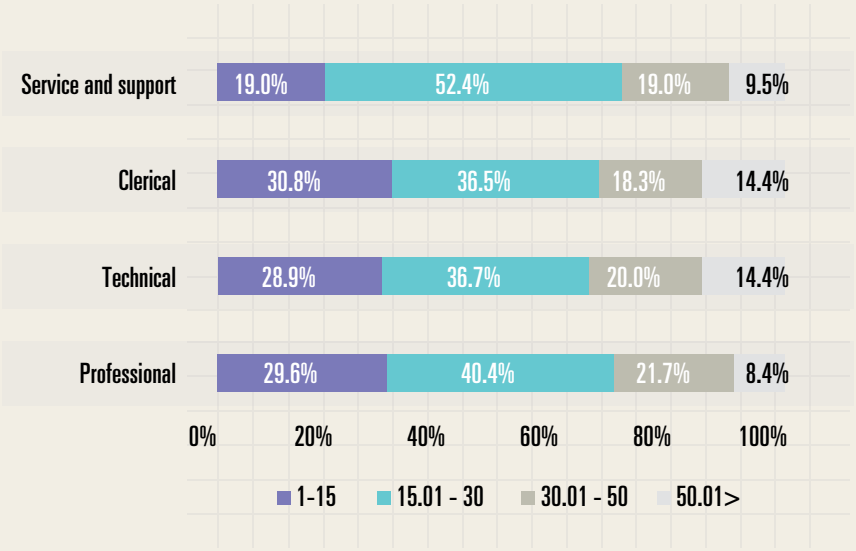


Figure 3.1-17: Debt ratio by job categories

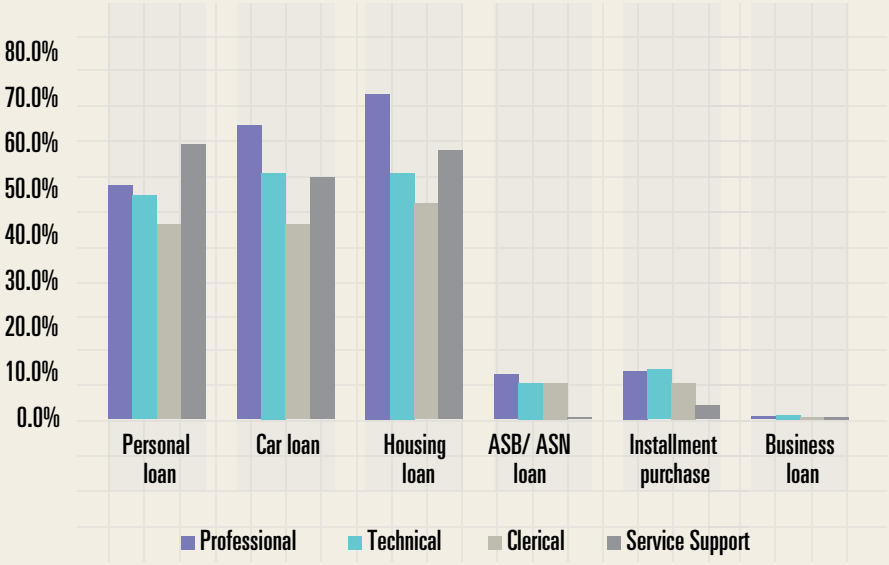


Figure 3.1-18: Percentage of respondents by types of loans and job categories

Key Findings:

Key Findings:

- Almost half of the respondents (48.8%) had tertiary education and slightly more than one-third had secondary or lower education.
- Majority of respondents lived within a nuclear-family household with a mean of four person household.
- Majority (80%) of the respondents planned to retire at the age of 60.
- Female respondents planned to retire earlier than the male.
- Mean income from the salary was RM4,480.03 (n=660).
- Almost 70% respondents reported expenditure on food away from home.
- The mean monthly instalment payment was about 20% of the respondents' salary.
- Seventy percent respondents owned a house and 68.8% had savings.
- Percentage of female respondents with savings was higher compared to that of male respondents.
- The highest percentage of insurance ownership was health insurance (42%).
- Housing loan tops all other loans followed by car and personal loans.

3.2 Aspirations and Attitudes towards Life in Retirement and Retirement Preparedness

3.2.1 Aspirations and Attitudes

Attitude towards retirement will influence how a worker will prepare or adjust to his or her retirement. In this study, 11 statements regarding retirement were developed to measure attitudes of respondents. This agreement scale has a response that ranges from 1 being strongly disagree to 5 being strongly agree. Figure 3.2-1 shows the responses to the attitude scale. Generally, the respondents showed positive attitude towards retirement. The item that had the highest record of strongly agree (52.8%) was related to relinquishing position after retirement, followed by not denying someone's opportunity to continue contributing (45.1%) and not feeling lonely due to loss of friends in retirement (41.5%). Over 40% noted they did not feel the loss of power and benefit, retirement provided an opportunity for active involvement in the community, not worried about not getting sympathy and support from others and retirement is not a dismissal from job due to old age. This seemed to reflect positive attitude towards retirement.

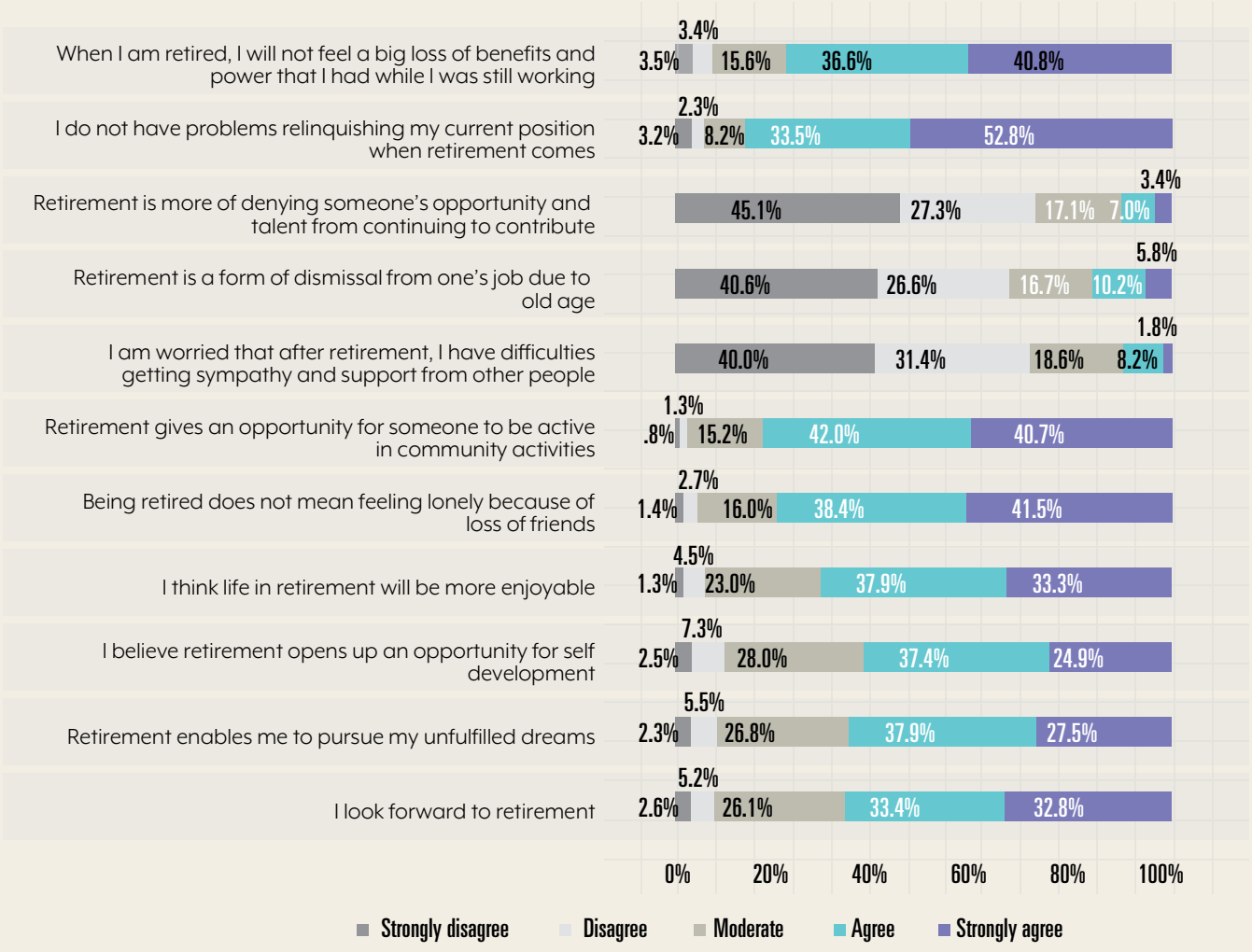


Figure 3.2-1: Aspirations and attitudes towards retirement

Further analysis of the attitude scale was conducted as shown in Figure 3.2-2. Summation score of the attitude scale was conducted where response score of 1 to 3 was considered as negative and categorised into negative attitude and response score of 4 to 5 was considered as positive. Based on these sum scores, the attitude scale below 44 points was categorised as negative and a score of 44 and higher was categorised as positive attitude (Figure 3.2-2). Additional variables of marital status, retirement option and intention to work in retirement were included in the analysis. Slightly more female respondents were reported to have positive attitude. Over 62% of respondents aged 50 years and above recorded positive attitude compared to the other age categories. More than 50% of less than 40 age group, noted a negative attitude towards retirement. It seems that a higher percentage of respondents with higher education attainment (56.3%) reported positive attitude towards retirement compared to respondents with lower education attainment (53.3%). Similarly, a higher percentage of respondents who had worked 18 years and longer recorded positive attitude towards retirement (61.8%). Not much difference in attitude towards retirement was noted based on marital status. However, a higher percentage of married respondents recorded positive attitude towards retirement compared with widowed or divorced/ separated groups. In contrast, the never married respondents showed a very high negative attitude towards retirement (61.6%). Interestingly, a higher percentage of respondents who opted for optional retirement recorded positive attitude towards retirement (65.7%), reflecting their preparedness to retire from their present occupation. While respondents, who did not intent to work during retirement showed more positive attitude towards retirement (56.9%) than respondents who intended to work in retirement. This result may indicate that respondents who did not intent to work in retirement may have made preparation and ready to accept retirement and those who intended to work may need to do so due to inadequate resources and other commitments which in term influenced their attitude towards retirement.

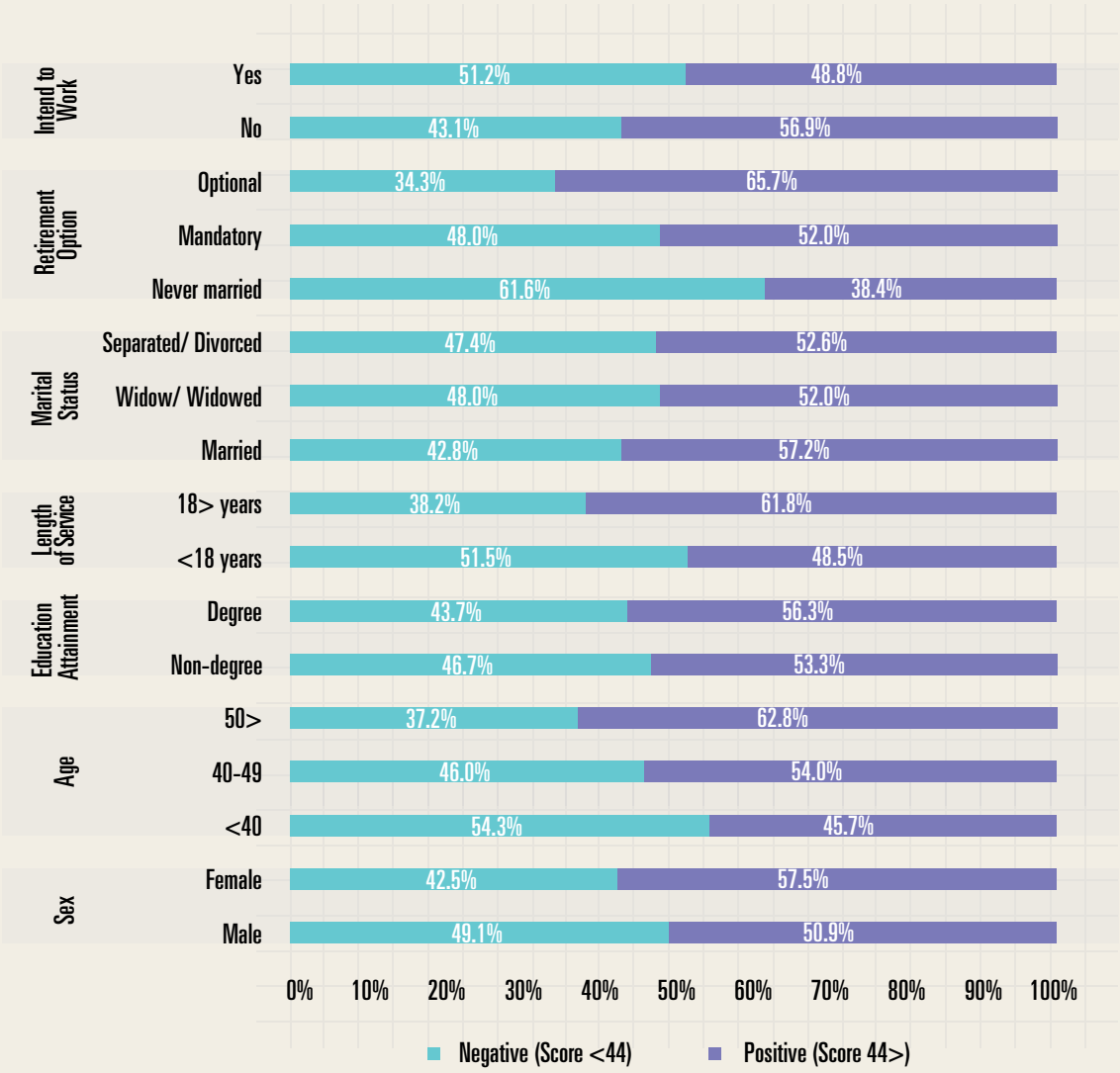


Figure 3.2-2: Aspirations and attitudes towards retirement by sex, age, education attainment, length of service, marital status, retirement option and intention to work

3.2.2 Things Respondents Look Forward to in Retirement

This sub-section discusses three things that the respondents most looked forward to in retirement. The top three items selected by the respondents were having free time, religious activities and time with family. The data clearly shows that stereotyping about retirement was still strong among the respondents. There were 82% respondents who indicated they wanted to devote more time doing religious activities. It is interesting to note that although most of the respondents are Muslims, the responses given were as if they were not currently religious enough and looking forward to retirement to be involved in religious activities. Since Islam is "Ad Din", working should be treated as *ibadah* too and the daily life of Muslim workers should also be based on the teachings of Islam.

The second choice of things they looked forward to in retirement was having time more with family. It is interesting to note that at retirement age most of the children were already leading their own lives, leaving for college, getting married and having children, leaving parents with empty nests. With longer life expectancy, the retired father or mother will find out that there are no more family members to spend time with except each other. The third most popular choice was retirement is meant for time to travel. Almost 45% respondents selected travelling as something they looked forward to. Unless they had proper written financial plans to implement such goals, which normally require a big sum of money especially if traveling overseas with family members. In addition to the top three selection, there were 41% respondents who indicated they looked forward to having free time in retirement. How long they planned to enjoy the free time is uncertain. With longer life expectancy it is hard to imagine how one will enjoy one's free time for the next 20 to 30 years.

Volunteering was selected by 20.8% respondents followed by time for hobbies (17.1%) and involved in business (16.6%). Surprisingly there were only 2.1% respondents who indicated that they looked forward to retirement to work for pay. Receiving pension may be one of the factors contributing to the point people no longer want to work for a salary. There were 2.3% respondents who indicated that they wanted to further their studies.

Table 3.2-1 shows the percentage of respondents who selected the three things they looked forward to in retirement by selected background. Except for religious activities and time with family, there were differences in the third selection for male and female. The male respondents, those aged 50 and older, non-degree holders and had worked for more than 18 years selected having free time as something they looked forward to upon retirement. In contrast, the female respondents, younger group, degree holders and those who have worked for less than 18 years selected travelling as their third choice.

Table 3.2-1: Three things respondents looked forward to in retirement

Things respondents looked forward to in retirement	Sex		Age			Education attainment		Length of service	
	Male	Female	<40	40-49	50>	Non-Degree	Degree	<18 years	18> years
Having free time	44.5%	38.6%	40.0%	37.7%	47.8%	41.5%	40.8%	36.8%	46.0%
Religious activities	78.8%	84.4%	72.0%	84.1%	85.9%	84.6%	79.5%	77.7%	86.9%
Time with family	76.9%	77.6%	78.9%	77.3%	76.5%	75.7%	79.0%	76.6%	78.1%
Travel	30.2%	55.4%	58.9%	44.7%	35.3%	36.5%	53.2%	52.7%	35.8%
Volunteering	22.8%	19.4%	12.6%	22.0%	24.3%	18.1%	23.6%	18.1%	23.8%
Time for hobbies	21.4%	13.9%	20.6%	15.5%	17.6%	17.2%	16.9%	17.6%	16.5%
Further studies	2.7%	2.0%	3.4%	1.6%	2.7%	1.4%	3.3%	2.5%	2.2%
Work for pay	3.6%	1.0%	2.3%	2.1%	2.0%	2.7%	1.4%	2.2%	1.9%
Involve in business	19.0%	14.9%	25.7%	15.9%	11.4%	19.0%	14.1%	20.5%	12.4%
Others	3.0%	1.2%	1.1%	1.9%	2.7%	2.3%	1.7%	1.3%	2.7%

Pre-retirees look forward to pursuing self or family focused activities when they retire. Intervention program must be in place to mobilize them to contribute back to society.

3.2.3 Retirement Planning

There were 18.5% respondents who had attended retirement planning courses. Figure 3.2-3 shows percentage of respondents who had attended retirement planning courses by selected background. The highest percentage was those in the age group of 50 and older. The normal practice was to offer retirement planning courses to those who are ready to retire. This is also reflected in the figure whereby the lowest percentage of group who attended retirement planning courses was among those below 40 years old. Such practice is not very suitable especially with regards to financial and health aspects of retirement planning. Employees need to start financial planning for retirement at a very young age to take advantage of time value of money. A similar case is applicable to health. One must take care of food intake as well as other aspects of health to stay healthy through old age. Increased incidence of non- communicable diseases is associated with life style. As such individuals need to practice healthy lifestyle. The figure also shows that a slightly higher percentage of female respondents had attended retirement planning courses compared to male respondents.

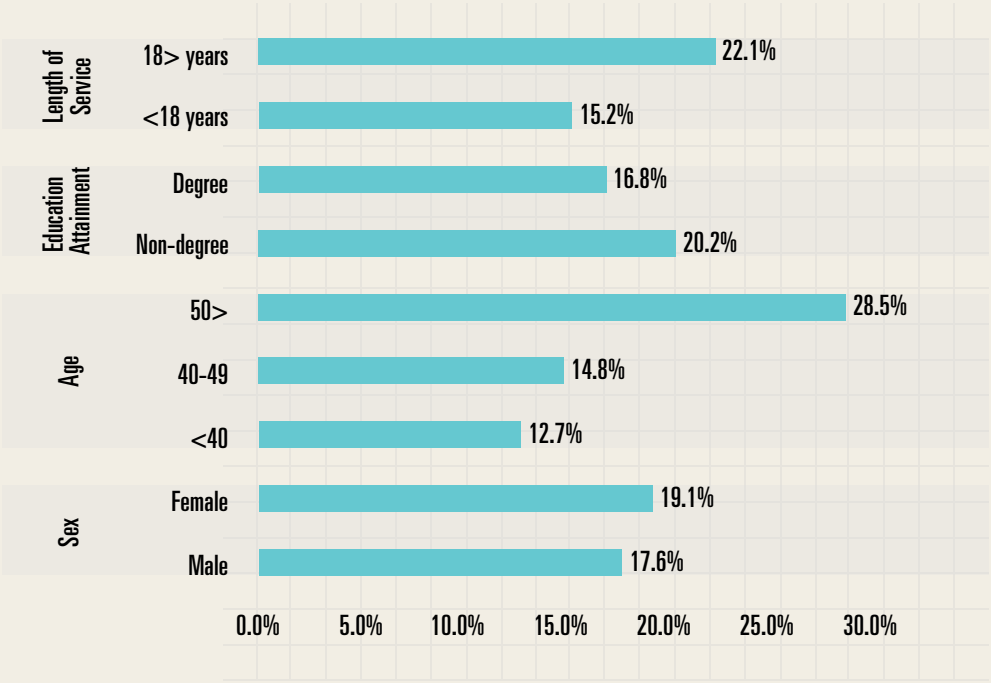


Figure 3.2-3: Percentage of respondents who attended retirement planning course

In addition to attending retirement planning courses, respondents were also asked to indicate if they had made their own retirement plans. Four options were given for them to choose; not sure, do not have a plan, have plans but not written and finally have a written plan. Retirement planning by sex, age, education attainment and length of service is in Figure 3.2-4. Majority of respondents in this study indicated they have retirement plans but mostly unwritten. Among those who had written retirement plans, 11% consisted of those who attended retirement planning course compared to only 4.5% who never attended retirement planning courses. There were 16.6% of non-degree holders who were not sure if they have any retirement plans. The figure shows that a slightly higher percentage of those nearing retirement (worked for more than 18 years and aged 50 and older) had written retirement plans. Less than 10% respondents indicated they had written plans for retirement. About two-thirds indicated they made plans but unwritten ones. Though a higher percentage of female respondents had attended retirement planning courses, the percentage of female respondents who had written plans was slightly lower compared to male respondents.

A good retirement plan should be written especially with regards to financial matters. Based on this, the study showed that a very small percentage of respondents had made retirement plans.

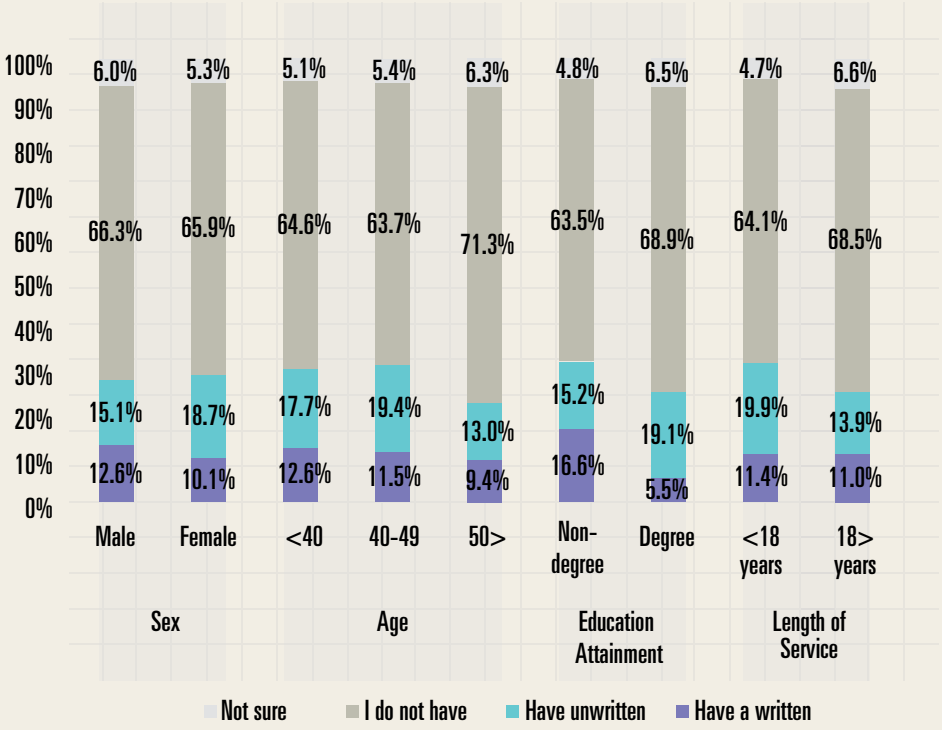


Figure 3.2-4: Retirement plan of respondents by selected background

Respondents were also asked to indicate how often they practiced the six items identified as good practices recommended by those who have retired. These practices are: contribute money to parents, assist neighbours who need help, give donation/ charity, ensure child(ren) go along when you visit relatives, bring child(ren) along to the mosque/ house of worship and help siblings/ relatives who are less fortunate. The percentage of respondents who indicated they often practiced the listed items is shown in Table 3.2-2. There were 77% respondents who indicated they often contributed money to their parents and 65% indicated they often gave donation. Highest percentage of female respondents (83.2%) contributed money to their parents compared to only 68% among male respondents. A higher percentage of the younger age group also indicated they often contributed money to their parents. The degree holders who usually earned more compared to non-degree holders, did contribute money to their parents.

With regards to assisting neighbours who needed help, less than one-third of the respondents indicated they often did but about two-thirds indicated they sometimes did.

Table 3.2-2: Percentage who often practiced good practices

Good practices activities	Sex		Age			Education attainment		Length of service	
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years
Contribute money to parents	68.0%	83.2%	79.7%	74.9%	77.8%	71.2%	82.5%	75.2%	78.9%
Assist neighbours who need help	28.1%	33.2%	27.2%	36.4%	25.1%	28.0%	34.5%	31.4%	30.7%
Give donation	62.4%	67.3%	57.9%	67.7%	66.0%	60.6%	70.1%	64.7%	65.9%
Ensure child(ren) go along when you visit relatives	64.7%	69.6%	64.1%	74.5%	58.2%	65.1%	70.0%	68.0%	66.9%
Bring child(ren) along to the mosque/ house of worship	50.0%	42.9%	37.3%	52.1%	41.7%	43.8%	48.4%	45.7%	46.2%
Help siblings/ relatives who are less fortunate	51.7%	65.4%	66.7%	58.4%	56.8%	55.8%	63.7%	59.6%	59.6%

Respondents were asked to select the types of assistance needed to prepare for their retirement as shown in Table 3.2-3. The top assistance mentioned by the respondents were related to finances, i.e. financial advice for retirement and managing money in retirement. This was true for all except for workers in the 50 years and over age group and had been working for more than 18 years. For workers in the 50 years age group and more than 18 years of service, emotional preparation was noted at 51% and 54% respectively. The least assistance needed was for loan/ scholarship for further education and skills for new jobs which was mentioned by all categories of respondents except for respondents with tertiary education, where help needed to find job was the lowest response. This seemed to reflect the non-interest in re-entry into the job market after retirement.

Preparation for social and interpersonal relationship was noted highest among tertiary educated workers (41.7%), while emotional preparation for next step in life was high among female respondents (58.0%), over 50 years old (51%) and those with length of service of 18 years and above (53.9%).

Financial preparation and management and assistance related to emotional preparation were high on the interest of the workers. Therefore, intervention programs to assist workers to prepare for retirement need to include both the financial and emotional aspects of retirement.

Table 3.2-3: Types of assistance needed to prepare for retirement

Types of assistance needed to prepare for retirement	Sex		Age			Education attainment		Length of service	
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18	18>
Financial advice for retirement	49.7%	52.9%	61.5%	53.5%	40.8%	50.3%	52.8%	55.9%	46.6%
Manage money during retirement	50.3%	57.6%	59.8%	58.0%	45.5%	52.6%	56.6%	58.6%	50.2%
Information on eligibility for public assistance	27.3%	25.9%	24.1%	26.8%	28.2%	25.6%	27.6%	26.6%	26.6%
Training for new career	22.7%	16.4%	20.1%	19.2%	18.0%	20.2%	17.7%	19.5%	18.5%
Help to find job	4.1%	3.4%	5.2%	3.3%	3.5%	4.3%	3.1%	4.7%	2.7%
Guide in identifying types of suitable job	14.9%	13.1%	10.9%	14.1%	15.3%	15.2%	12.5%	11.9%	16.1%
Preparation for my social and interpersonal relationship needs	30.4%	36.0%	36.8%	35.7%	27.8%	25.9%	41.7%	36.7%	30.2%
Loan/ grant to start a business	18.2%	9.5%	14.9%	15.0%	8.6%	11.6%	14.9%	16.6%	9.3%
Loan/ scholarship for further education and skills for new job	3.9%	3.0%	4.6%	3.1%	3.1%	2.9%	3.8%	4.3%	2.4%
Prepare emotionally for next step in life	42.0%	58.0%	49.4%	52.6%	51.0%	51.5%	51.1%	49.0%	53.9%
What to do with the rest of your life	28.7%	34.7%	30.5%	33.1%	31.8%	31.5%	33.1%	33.6%	31.0%

3.2.4 Perceived on Retirement Preparedness

They were also asked to what extent they were prepared for retirement, where 1 being not prepared at all to 5 being fully prepared for retirement comprising six areas, which are finances, health, spirituality, residence, mental health and social relationship. The mean response for each area by selected background is shown in Table 3.2-4. Highest mean was for residence and this corresponded with the high percentage of respondents who already owned houses for them to live in old age. There was a slight difference in the mean for male and female respondents, where males tended to perceive they were more prepared compared to females in almost all areas except finance. When age groups were compared, the older age group tended to perceive they were more prepared compared to the younger age group in all six areas. In fact, the older age group had a mean of greater than four, for spirituality, residence, mental and social relationship. For age group below 40, the lowest mean was on finance indicating the younger age group tended to be the least financially prepared for retirement compared to other groups.

A similar trend was observed whereby the mean responses for the youngest age group was smaller compared to the 40 to 49 age group. The data revealed that the younger age group perceived that they were the least prepared. This could be since they are still young, and retirement is still a long way to go. When the mean was compared by education attainment, the mean among the non-degree holders was higher compared to the degree holders. A higher proportion of respondents with no tertiary education were the older age group who tended to be more prepared for retirement compared to the younger age group. A similar trend was also observed when length of service was compared. Those who had been in service for more than 18 years perceived they were more prepared to retire compared to those who had been in service for less than 18 years. As such, younger employees should be given awareness on the need to prepare for retirement at early stage of their career.

Table 3.2-4: Retirement preparation by selected background

Aspects of retirement preparation	Sex		Age			Education attainment		Length of service	
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years
Finance	3.32	3.37	2.92	3.25	3.80	3.48	3.21	3.09	3.63
Health	3.61	3.58	3.34	3.52	3.90	3.70	3.48	3.43	3.77
Spirituality	3.69	3.67	3.33	3.64	4.00	3.80	3.56	3.49	3.90
Residence	4.07	4.08	3.57	4.07	4.44	4.12	4.02	3.83	4.34
Mental	3.90	3.84	3.48	3.78	4.29	3.98	3.75	3.59	4.16
Social relationship	3.93	3.79	3.51	3.83	4.11	3.91	3.78	3.65	4.07

3.2.5 Retirement Preparedness Scale

Pre-retirees' perception on retirement preparedness was measured using 17 questions scale which comprised of five domains that affect life in retirement, namely social, health, financial, physical environment and psychology. The Retirement Preparedness Scale has good internal consistency, with a Cronbach's alpha coefficient of .764. Cronbach's alpha is a test used to measure the scale reliability and how a set of items are closely related as a group. It is widely used in most social science research. A reliability coefficient of 0.7 or higher is considered acceptable, hence this scale is reliable to measure the retirement preparedness.

Four response options were given for each question to indicate ideal practice of the respondents. Response ranges from 1 being the least ideal to 4 being the most ideal. Mean summed score of the scale was 53.3. Figure 3.2-5 depicts the distribution of total scores on retirement preparedness scale.

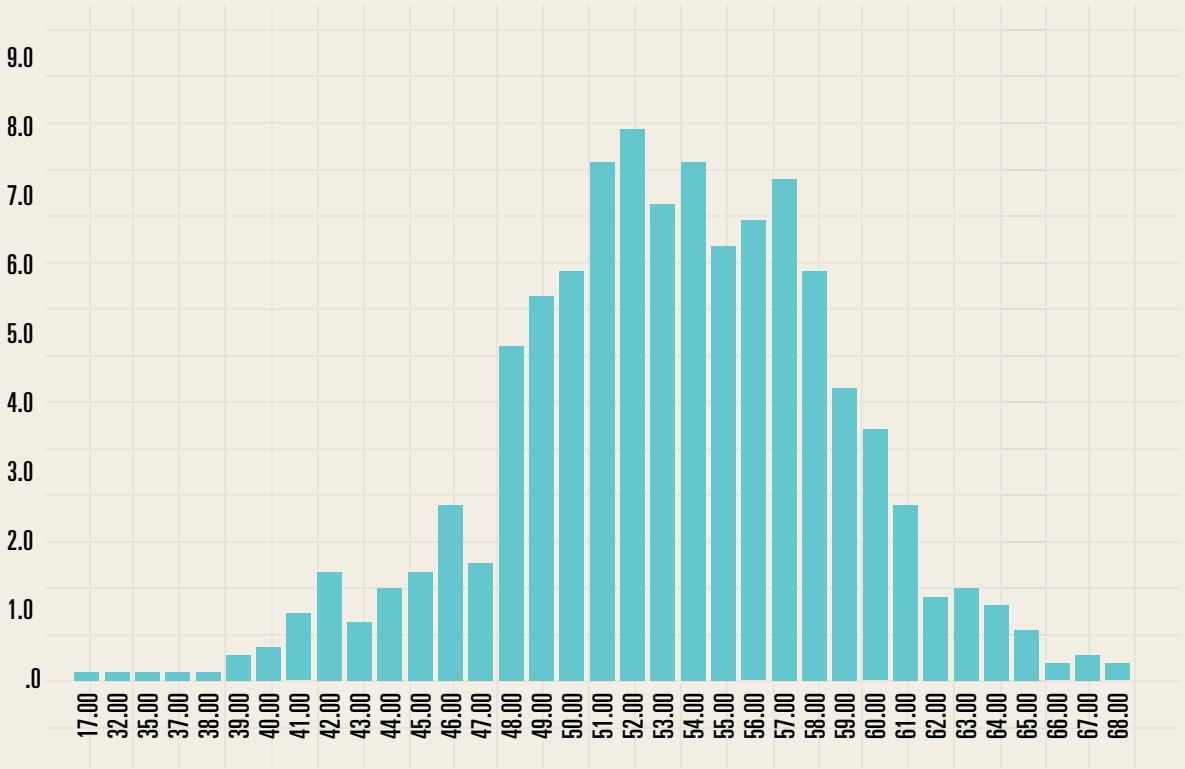


Figure 3.2-5: Distribution of total scores on Retirement Preparedness Scale

Questions asked in the Retirement Preparedness Scale are itemized in Table 3.2-5. For question on daily life routine in retirement, slightly more than a quarter (26.7%) would only think about life in retirement when they retire, 48.0% had a vision of life in retirement and 20% had a well laid out plan for retirement. In relation to perceived changes in power in retirement, 56% felt that they could adjust to the loss of power in retirement. In terms of role change, 71% mentioned they would adapt to role change upon retirement. Approximately, 57% of the respondents noted that they would set their retirement goals when the time comes (56.5%). The respondents had a wide social network beyond co-workers and family members only. About 53.8% made the effort to strengthen family relationship and would only get involved in community if they had free time. In terms of health and finance, the respondents score was towards ideal practice. The respondents also indicated that their current house was suitable for old age. Only 6.3% noted that their current house was not suitable but they were left with no other option. More than half (67.9%) of the respondents felt free to move when asked about mobility. Majority (76.55) also knew of several facilities and services for older persons. Their responses on time in retirement was average.

Table 3.2-5: Retirement Preparedness Scale

Questions	Ideal practice			
	1	2	3	4
How do you envision your daily life routine in retirement?	5.0	26.7	48.1	20.3
How do you deal with changes in power during retirement?	4.3	2.0	56.5	37.3
How did you deal with changes in your roles once you retire?	.6	3.5	71.0	24.9
Do you have retirement goals?	4.3	2.0	56.5	37.3
How is your family relationship?	.3	15.6	53.8	30.3
How is your involvement in the community?	4.1	69.2	13.0	13.7
How is your social network in the community?	.3	15.6	53.8	30.3
What is the pattern of your food intake?	5.6	23.1	26.5	44.7
Do you exercise?	3.5	2.2	77.6	16.7
Do you go for medical check-ups?	2.0	21.5	30.4	46.2
How is your spending pattern?	1.2	2.0	54.0	42.8
How is your debt burden?	.5	11.8	80.7	7.0
What was your savings habit for retirement?	2.0	14.4	38.6	45.0
Is your current house suitable for old age?	6.3	31.9	35.4	26.5
How mobile are you?	1.8	6.0	24.4	67.9
To what extent is your knowledge on facilities and services for older persons?	9.5	2.8	76.5	11.2
How do you use your time?	4.9	30.4	42.2	22.5

3.2.6 Retirement Preparedness Behavioural Model

Factor Explaining Variation in Retirement Preparedness

To explore factors explaining variation in retirement preparedness, the regression procedure was used to estimate the relationship between dependent variables (retirement preparedness score) and more than one independent variables (i.e - socio demographic background, number of dependent in the household and economics factors). The analysis enable researcher to determine which variables significantly explain variation in the retirement preparedness score. The description of the variables used in the model is shown in Table 3.2-6.

Dependent variable: Retirement preparedness score ranging from a minimum of 17 to the maximum of 68. The scale covers five dimensions of wellbeing in old age namely economy, social-psychological, spiritual, and physical as well as health.

Independent variables: Variables included in the model are shown in Table 3.2-6. The variables included in the model comprised of socio demographic background (sex, education, length of services), number of dependent in the household, economics factors (household income, assets and loans). Variable on whether they have retirement plans was included to grasp the actual preparation done. In addition, socio-psychological variables included in the model were attitude towards retirement and good social cultural practices. The result of the regression analysis is shown in Table 3.2-7. The adjusted R squared for the model was 0.796 meaning that the model explains 79.6% of the variation in retirement preparedness score. Five variables contributed significantly in explaining the variation in the retirement preparedness score namely length of service, have retirement plan, number of assets, social cultural practices and finally number of diseases. Those who had worked longer tended to be more prepared for retirement compared to those who were new in service. This is a norm especially when retirement planning courses are only given close to retirement day.

The next variable was have retirement plan. Those who already have retirement plans would translate the plan into practice which is reflected higher retirement score. A similar situation can be applied to number of assets. People accumulate assets for their future including retirement or old age. Positive coefficient indicated that those with more assets tended to be more prepared for retirement than those with no or few assets. In contrast, those with more diseases had lower retirement preparedness score compared to those with no or few diseases. The regression analysis able to determine the predictors of retirement preparedness score which are length of service, have retirement plan, number of assets, social cultural practices and number of diseases.

Table 3.2-6: Variables used in the regression analysis

		Variable type
$ß_1$ = Selected demography	Sex, education, length of service	Dummy (D), Continuous (C)
$ß_2$ = Number dependent	Number of school going children, parents and others	C
$ß_3$ = Household income	Estimated monthly household income	C
$ß_4$ = Have retirement plan	Whether respondents have retirement plan or not. Dummy-1 – have plan, 0 – no plan	D
$ß_5$ = Number of diseases	Number of diseases the respondents have	C
$ß_6$ = Number of loan	Number of outstanding loan	C
$ß_7$ = Number of assets		C
$ß_8$ = Attitude towards retirement		C
$ß_9$ = Social cultural practice		C

Table 3.2-7: Regression Model: Retirement Preparedness

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	42.453	.863		49.211	.000
Dummy_Sex (Male)	-.311	.222	-.030	-1.402	.162
Dummy-Education (Tertiary)	.207	.262	.020	.787	.432
Number of Dependent	-.078	.064	-.027	-1.224	.221
Length of service	.038	.014	.062	2.646	.008
Dummy_Plan (Have plan)	1.685	.258	.142	6.525	.000
Number of assets	.150	.072	.049	2.080	.038
Number of loan	-.040	.105	-.008	-.385	.701
Household monthly income	6.828E-06	.000	.009	.359	.720
Number of diseases	-.257	.109	-.050	-2.354	.019
Attitude score	.019	.019	.023	.981	.327
Social cultural practices	1.405	.041	.802	33.937	.000

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
894	.800	.796	2.37915	.800	172.867	11	475	.000

Key Findings:

- The respondents showed positive attitude towards retirement.
- The top three items respondents look forward to in retirement were having free time, religious activities and time with family.
- The highest percentage of those who attended retirement planning courses was in the age group of 50 and older.
- Younger age group perceived that they were the least prepared for retirement particularly on finance.
- The significant predictors for retirement preparedness score were length of service, have retirement plan, number of assets, social cultural practices and number of diseases.

3.3 Facilitating Environment and Barriers to Active Participation in the Community

3.3.1 Facilitating Environment to Active Participation in the Community

Table 3.3-1 shows the suggestion to encourage active/productive participations of retirees in the community by sex, age, education and length of service. All respondents irrespective of their backgrounds, mentioned maintaining good health would encourage active/productive participation of pre-retirees in the community. Among male respondents, instilling the feeling of responsibility towards the community (41%) was the second highest suggestion but for female respondents (40.3%). Furthermore, for respondents below 50 years old, the second highest suggestion was flexible time, 38.2% for below 40 age group and 41% for the 40 to 49 age group. For the older cohort, instilling the feeling of responsibility towards the community (41%) was the second highest suggestion.

Instilling the feeling of responsibility towards the community (39.3%) was second highest suggestion for respondents whose education attainment was below degree level and flexible time (45.7%) was second for respondents who had tertiary education. News of opportunity was the lowest suggested as noted by all respondents except for 40 to 49 age cohort and non-degree educated respondents, where lowest was encouragement by family member 5.0% and 6.7% respectively.

A different pattern in suggestions emerged for respondents who had served less than 18 years and above 18 years. Flexible time (40.1%) and instilling the feeling of responsibility towards the community (40.6%) shared the second highest suggestions, among respondents who had served more than 18 years and flexible time was second amongst respondents (38.1%) that had served less than 18 years. There was no clear pattern of suggestions to encourage active/productive involvement of retirees in the community, accept for maintaining good health. Nevertheless, flexible time and opportunity to share experiences seemed to be more frequently reported by female respondents, below 50 age cohorts and degree educated respondents.

Preventive health programs should be emphasized at the workplace and self-care practices should be encouraged to reduce future government burden on health care cost.

Table 3.3-1: Suggestions to facilitate active/productive participation of pre-retirees in the community by sex, age, education attainment and length of service

Suggestions	Sex		Age			Education attainment		Length of service	
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years
Maintaining good health	77.8%	71.9%	70.5%	75.2%	75.7%	76.0%	72.7%	71.7%	77.2%
Flexible time	37.1%	40.3%	38.2%	41.0%	36.7%	32.6%	45.7%	38.1%	40.1%
Recognition	16.9%	14.4%	20.8%	14.6%	12.7%	16.9%	13.9%	17.7%	12.9%
Opportunity to make new friends	14.9%	18.8%	17.3%	17.5%	16.7%	17.1%	17.2%	15.7%	18.8%
Opportunity to share experience	34.0%	36.2%	30.6%	36.8%	35.9%	33.9%	36.6%	33.9%	36.9%
Opportunity to travel	16.6%	22.1%	23.1%	18.6%	19.5%	16.9%	22.7%	21.3%	17.8%
Opportunity to learn new skills	12.1%	17.4%	19.7%	14.4%	12.7%	16.6%	13.6%	16.8%	13.4%
Opportunity to mix with others.	35.7%	32.6%	31.2%	33.3%	37.1%	38.3%	29.2%	32.7%	34.9%
News of opportunity	7.6%	5.7%	10.4%	6.4%	4.0%	7.4%	5.5%	7.6%	5.2%
Encouragement from family	7.9%	7.1%	16.8%	5.0%	5.2%	6.7%	8.1%	9.2%	5.4%
Financial reward	14.6%	13.2%	22.0%	14.2%	7.6%	10.9%	16.7%	18.4%	8.7%
Instil the feeling of responsibility towards the community	41.0%	31.8%	17.9%	39.9%	41.0%	39.3%	32.1%	31.4%	40.6%
Planning for interesting activities	20.5%	27.5%	24.3%	26.4%	21.5%	24.5%	24.6%	24.2%	25.0%
Others	0.6%	0.8%	0.6%	0.0%	2.0%	1.2%	0.2%	0.2%	1.2%

3.3.2 Barriers to Active Participation in the Community

Table 3.3-2 provides a summary of respondents' perception of barriers to re-employment after retirement. Analysing across factors, health status seemed to be the dominant barrier to re-employment mentioned by all categories of respondents, followed by age limit and unsuitable working environment. Employers' reluctance to employ retirees and personally opted not to work shared fourth highest barriers mentioned by respondents. There was a noticeable difference in perceived barriers according to age cohorts. Respondents below 40 years old, opined that age limit (61.8%), while cohort 40 to 49 years old mentioned health status (61.7%) so did respondents aged 50 and over (46.8%), mentioned health status as barriers. This reflected different importance was given to age limit and health status by the different cohort groups. Health status will determine a person willingness or ability to work. Therefore, it is crucial to maintain good health to be reemployed after retirement

Table 3.3-2: Perceived barriers for pre-retirees to return to work for pay by sex, age, education attainment and length of service

Barriers to reemployment	Sex		Age			Education attainment		Length of service	
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years
High salary to be paid by employers	20.3%	14.0%	16.8%	14.4%	20.0%	14.6%	18.7%	17.5%	15.7%
Working environment is not suitable for senior citizens	41.4%	41.2%	39.3%	42.8%	40.4%	39.6%	43.2%	40.8%	42.0%
Costs versus benefits of going back to work	13.0%	12.2%	14.5%	12.3%	11.6%	10.4%	14.6%	13.0%	11.9%
Age limit	48.7%	52.9%	61.8%	51.3%	43.2%	52.1%	50.1%	53.6%	48.3%
Employers are reluctant/ not interested to employ retirees	33.8%	32.9%	31.2%	34.5%	32.8%	30.6%	36.0%	33.4%	33.1%
Requires re-training	8.7%	10.8%	13.3%	9.5%	8.4%	7.9%	12.0%	11.4%	8.2%
Skills possessed do not match with market demand	20.6%	19.1%	19.7%	21.5%	17.2%	17.4%	22.3%	21.7%	17.7%
Personally, opt not to work	33.8%	37.3%	31.2%	35.9%	38.8%	34.3%	37.4%	33.2%	38.8%
Stereotyping against aged workers	18.6%	20.9%	21.4%	21.5%	16.4%	16.7%	23.3%	24.0%	15.4%
Family disapproval	8.7%	13.8%	15.6%	9.2%	13.2%	13.0%	10.3%	10.5%	12.9%
Health	55.2%	55.0%	50.9%	61.7%	46.8%	52.5%	57.8%	55.8%	54.5%
Others	1.1%	2.6%	1.2%	1.4%	3.6%	1.9%	2.2%	1.6%	2.5%

Key Findings:

- All respondents irrespective of their backgrounds reported maintaining good health would encourage active/productive participation of pre-retirees in the community.
- Health status regarded as the dominant barrier to re-employment by all categories of respondents.

3.4 Productive Activities

3.4.1 Work in Retirement

3.4.1.1 Intention to Continue Working for Pay after Mandatory Retirement

Respondents were asked to indicate if they planned to continue working for pay when they retire. Only 31% indicated they planned to work for pay after retirement. The highest percentage was among those aged below 40, who had worked for less than 18 years and male respondents. There were only 20.4% respondents aged 50 and older who indicated they planned to work for pay after retirement. The percentage of female respondents who wished to work for pay after retirement and those who had worked for more than 18 years was also low compared to the younger age group. The percentage of degree holders who planned to work for pay was slightly higher compared to the non-degree holders.

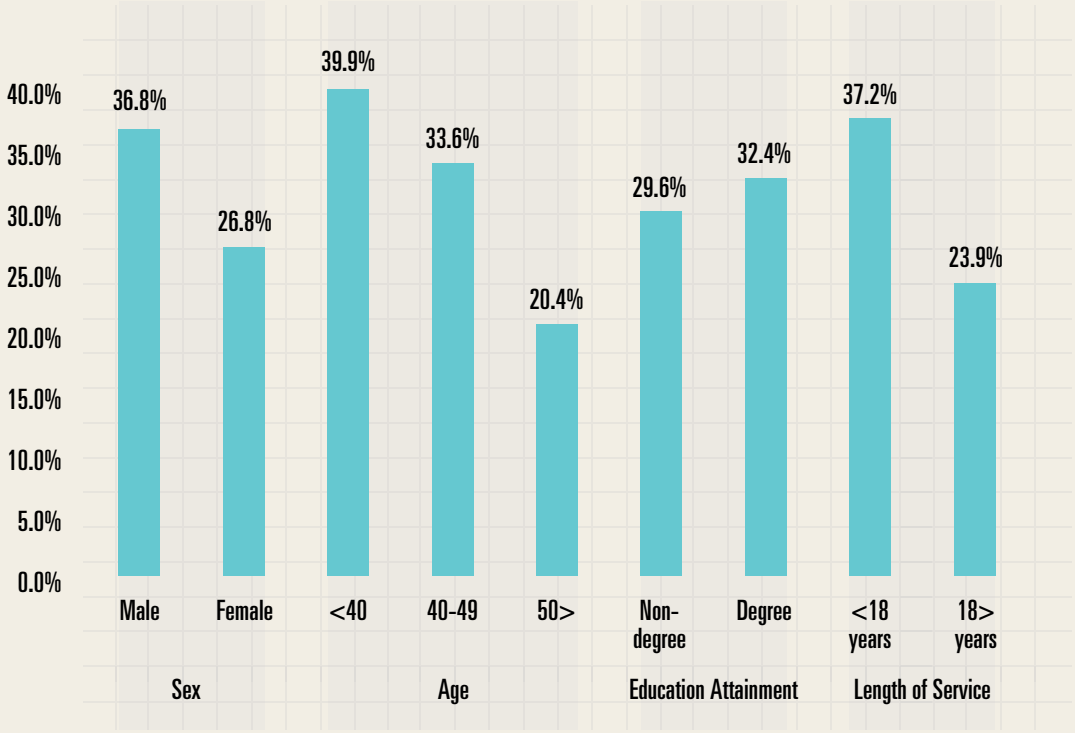


Figure 3.4-1: Intention to work for pay after mandatory retirement

3.4.1.2 Main Reasons to Continue Working

The reasons why they wanted to work for pay are shown in Table 3.4-1. The top reason selected was to keep contributing to society followed by preferred to do beneficial work. Financial related reasons were the third and fourth popular reasons selected by the respondents. The least popular reason selected was to stay busy where only 21.3% respondents selected this reason. The top three reasons selected by male respondents were to keep contributing to society, need money to support living and prefer to do beneficial work. On the other hand, for female respondents, top three reasons were to keep contributing to society, prefer to do beneficial work and need extra money for leisure activities such as vacation. Financial matters became the second reason given by male respondents while for female respondents, financial reason was the third most popular reason. There were also differences in reasons given by age group. Those in the younger age group reported financial reasons whereas lower percentage of the oldest age group selected financial reasons. Those with non-tertiary education selected keep contributing to society, prefer to do beneficial work and need money to support my living while those with tertiary education, the top three reasons selected were; keep contributing to society, utilize skills and maintain social network. There was not much difference in reasons given by length of service except for financial related matters. Those who had worked for less than 18 years selected need to support their living while those who had worked for more than 18 years indicated they needed extra money for leisure activities such as vacation.

Table 3.4-1: Reasons for continuing to work for pay after mandatory retirement

Reasons to continue working	Sex		Age			Education attainment		Length of service		All
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years	
I need money to support my living	47.8%	38.0%	47.1%	43.8%	34.5%	42.3%	43.3%	41.2%	45.7%	43.0%
I need extra money for leisure activities such as vacation	41.8%	44.5%	36.8%	47.9%	39.7%	40.9%	45.5%	45.5%	39.0%	43.9%
To structure my daily life	37.3%	35.8%	36.8%	36.1%	37.9%	40.1%	32.8%	37.0%	35.2%	34.8%
To maintain my social network	35.8%	42.3%	39.7%	36.8%	44.8%	27.0%	51.5%	41.2%	35.2%	39.3%
I prefer to do beneficial work	45.5%	50.4%	35.3%	49.3%	58.6%	48.2%	47.8%	44.8%	53.3%	48.0%
I enjoy working	35.1%	32.1%	33.8%	29.9%	43.1%	29.2%	38.1%	30.9%	37.1%	32.8%
To learn new things	27.6%	39.4%	41.2%	30.6%	32.8%	27.0%	40.3%	35.2%	31.4%	32.8%
I want to stay busy	20.1%	27.7%	27.9%	16.7%	37.9%	20.4%	27.6%	21.8%	26.7%	21.3%
I want to utilise my skills	40.3%	43.1%	45.6%	36.8%	48.3%	29.9%	53.7%	44.2%	37.1%	40.6%
To keep contributing to society	57.5%	62.0%	50.0%	63.2%	63.8%	56.9%	62.7%	60.0%	60.0%	57.8%

Preferred work arrangement among those who intended to work after retirement is shown in Figure 3.4-2. The percentage who preferred to work full time was small. The existing work arrangement (full time) may be one of the key reasons people did not plan to work in retirement. The most preferable work arrangement selected by the respondents were part-time and project-based kind of work. A higher percentage of male respondents compared to female respondents, non-degree holders compared to degree holders, those aged 40 to 49 compared to other age groups preferred to work part-time. The younger age group also preferred project-based type of work.

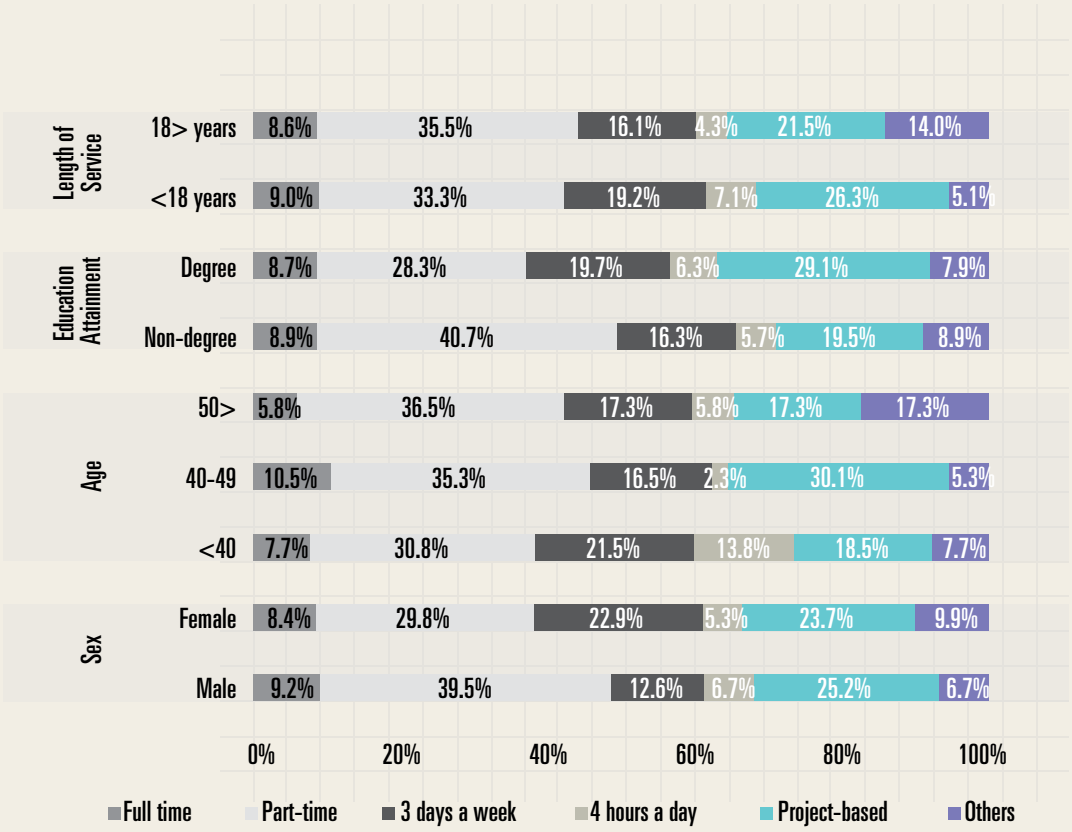


Figure 3.4-2: Preferred work arrangement by selected background

Reasons given by those who did not plan to work for pay in retirement is shown in Table 3.4-2. The top most reason given was they wanted to rest and focus on spiritual/ religious activity. There were more than 80% respondents who selected this reason for not wanting to work in retirement.

As majority of the respondents are Muslims, the reason given was rather puzzling. It may reflect that they were unable to focus on spiritual activities while working. Islam is a way of life, spiritual and religious activities should be practiced daily. Effort should be made through religious platform to develop productive activities that will benefit the community.

The highest percentage was among female respondents, those aged 40 to 49 and those who had worked for more than 18 years. The other two top reasons were gardening and travelling. The second and third most popular reasons seemed to differ by sex. A higher percentage of male respondents planned to take part in *Jawatankuasa Kemajuan dan Keselamatan Kampung* (JKKK), neighbourhood watch or residential association and gardening. Female respondents planned to travel regularly and take care of their spouses. Reasons given also differed by length of service, those who had worked for less than 18 years planned to do gardening and travel regularly while those who had worked for more the 18 years did not plan to work since they had enough money and planned to take part in JKKK, neighbourhood watch or residential association.

Table 3.4-2: Reasons for not planning to work for pay in retirement

Reasons for not planning to work	Sex		Age			Education attainment		Length of service		All
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years	
Due to my health problems	14.7%	9.3%	3.2%	13.4%	13.2%	15.5%	7.2%	7.8%	15.3%	11.0%
I want to rest and focus on spiritual/ religious activity	77.2%	87.9%	77.4%	86.9%	81.8%	83.4%	83.4%	81.2%	85.6%	83.2%
I have sufficient income	27.0%	31.3%	22.6%	26.6%	38.6%	22.7%	37.5%	24.5%	34.6%	29.6%
Gardening	36.1%	31.3%	32.3%	33.7%	33.2%	32.3%	34.4%	36.1%	30.5%	34.2%
Attend courses or seminars	6.0%	8.6%	8.9%	6.6%	8.2%	6.4%	8.8%	7.5%	7.5%	7.5%
Participate in activities by organizations	21.8%	15.4%	14.5%	16.7%	21.8%	16.6%	19.7%	15.5%	20.5%	18.4%
Take part in JKKK, Neighbourhood Watch, Residential Association	38.6%	23.2%	22.6%	31.3%	30.9%	29.8%	29.7%	26.3%	33.1%	29.6%
Business	21.4%	15.2%	23.4%	20.9%	10.0%	17.4%	18.1%	23.6%	12.1%	18.1%
Teaching Qur'an, tuition	14.7%	12.4%	21.8%	12.8%	9.5%	10.8%	16.3%	17.0%	9.8%	14.0%
I would like to travel regularly	28.1%	39.1%	41.1%	36.1%	28.6%	25.1%	45.0%	38.5%	30.5%	34.1%
My family does not want me to work	1.8%	5.1%	4.8%	2.4%	5.0%	5.2%	1.9%	3.0%	4.3%	3.5%
I want to do volunteer work	31.6%	25.8%	24.2%	25.4%	34.5%	24.6%	32.2%	25.4%	30.8%	28.1%
I deserve to retire completely	18.6%	19.4%	28.2%	13.7%	22.3%	17.1%	21.3%	20.9%	17.3%	18.1%
Taking care of spouse	31.6%	32.6%	37.1%	33.4%	27.7%	32.3%	31.9%	33.4%	30.8%	33.6%
Taking care of my child(ren)	20.7%	24.5%	29.8%	24.5%	17.3%	22.1%	24.1%	24.8%	21.3%	24.4%
Taking care of my grandchild(ren)	10.2%	6.8%	16.1%	5.7%	7.3%	8.3%	8.1%	9.6%	6.9%	8.6%
Taking care of my parents/ in-laws	22.1%	29.3%	33.1%	27.5%	20.5%	27.6%	24.7%	29.6%	23.1%	26.9%
Taking care of my friend(s)	2.1%	0.0%	1.6%	0.6%	0.9%	1.1%	0.6%	0.9%	0.9%	0.8%
Other reasons	2.1%	2.5%	2.4%	1.8%	3.2%	2.8%	1.9%	2.1%	2.6%	2.7%

3.4.2 Time Use Pattern

Figure 3.4-3 indicates that apart from working in the government sectors, majority of the respondents were involved in caring for their immediate family – i.e their children (67%), followed by care for their parents (44%). Nearly one-third were involved in volunteer work and about one-quarter had side jobs, perhaps to help them deal with the high cost of living. The mean reported time spent for each activity is also shown in Figure 3.4-3. The highest mean was time spent caring for children, followed by caring for parents. 23% of the respondents took an average 19 hours per week doing additional jobs. Volunteering took an average of 29% of their time per week among 10.4% respondents.

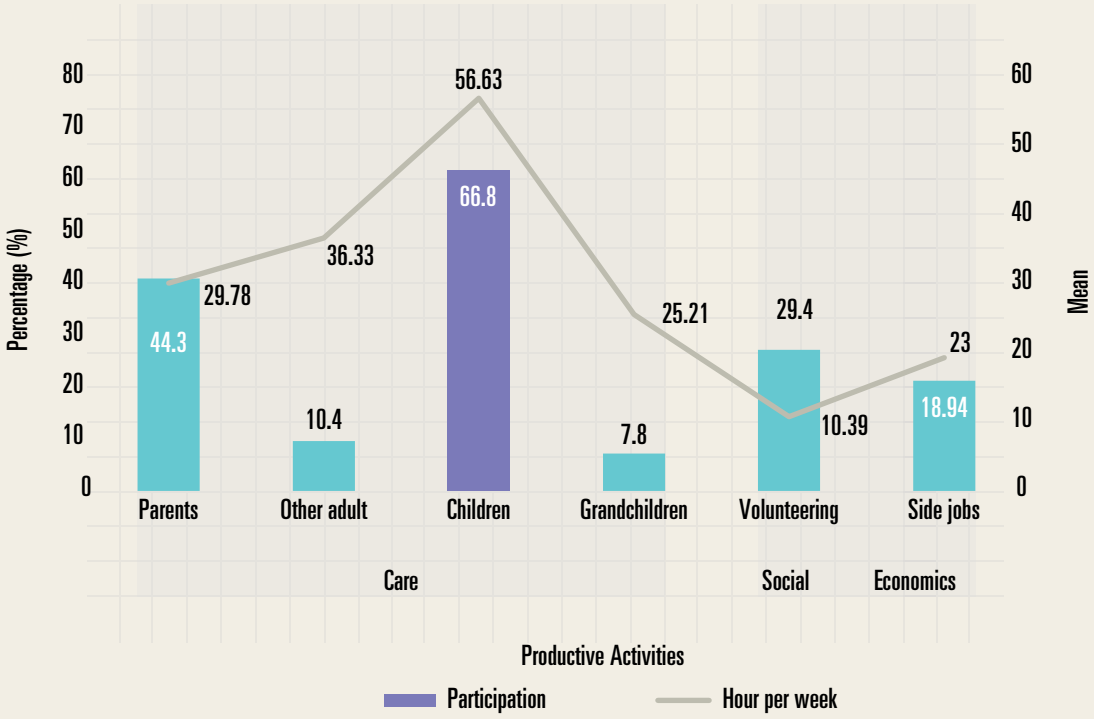


Figure 3.4-3: Percentage of respondents involved in various productive activities

Table 3.4-3 summarises the time spent on various activities considered as productive. The household production model was used to identify productive activities defined as unpaid activities done by and for household members and if the economics, financial, market and personal attributes allowed these activities to be done by others (Reid, 1934). As pre-retirees sample consisted of younger families, they reported to have spent most hours per week on caring for children (around 57 hours/week) – i.e. roughly caring for them around eight hours a day for almost seven days/week. That itself is a full time commitment. Pre-retirees also spent a lot of time on caring for other adults in the family (36 hours/week) followed by their parents (about 30 hours/week). The data shows that they overestimated the time spent. Nevertheless the information given do provide a general picture of their out of office activities.

As most pre-retirees spent most of their time on their families, they allocated less time to do volunteer work which they reported to have spent ten hours weekly. For the 23% who were involved in side employment, the average total time spent on this activity was 19 hours/week – similar to taking up part time jobs besides their full time employment in the government sector.

Table 3.4-3: The amount of time spent in productive activities

Activities	No. of days/week		No. of hours/each time		Total hours/week	
	Mean	SD	Mean	SD	Mean	SD
Parent	4.24	2.46	6.23	3.98	29.78	28.09
Other adults	5.22	2.20	5.86	4.36	36.33	32.33
Children	6.44	1.50	8.50	4.13	56.63	30.50
Grandchildren	4.00	2.46	5.36	4.11	25.21	26.13
Volunteering	2.55	1.83	3.65	2.57	10.39	14.14
Side jobs	3.37	2.11	4.72	3.18	18.94	21.67

Respondents' involvement in and time spent on various productive activities were analysed based on respondents' sex, age categories, education attainment and length of service. Figure 3.4-4 interestingly indicates that generally, a slightly higher percentage of male respondents were involved in caring for their families than female respondents, even though the female respondents reported to have spent more time (in average) on each type of care than male respondents except for care for grandchildren. Male respondents tended to be involved in voluntary activities and side jobs twice more compared to female respondents.

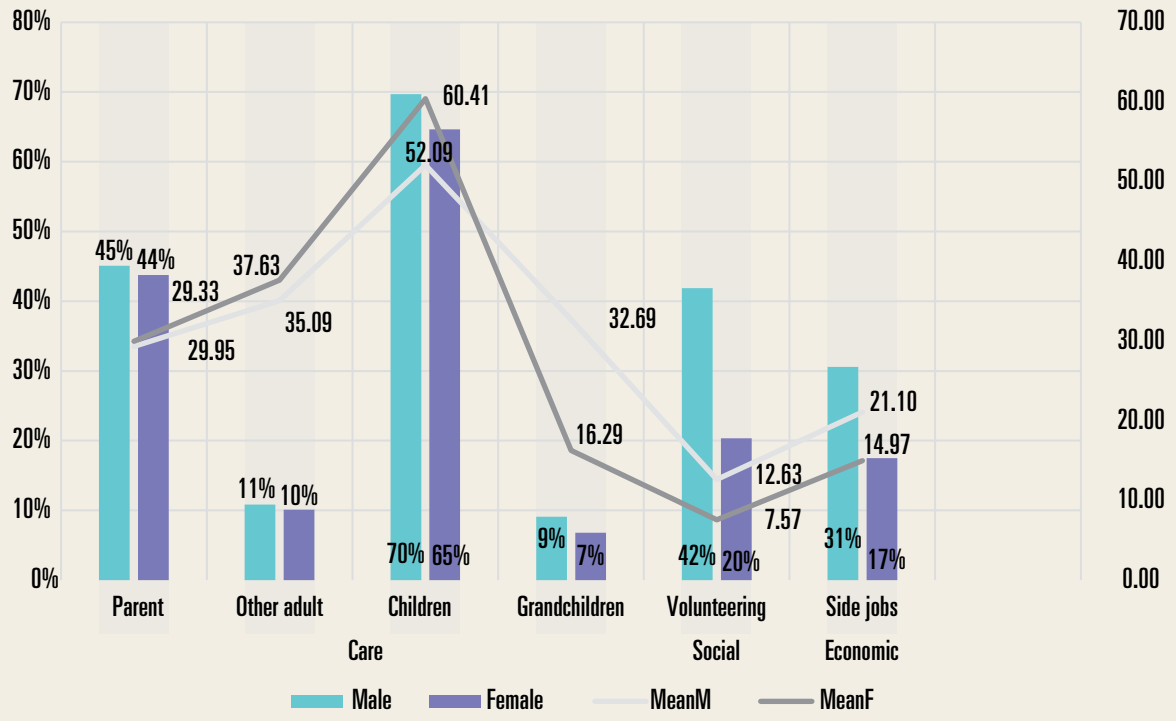


Figure 3.4-4: Percentage of respondents involved in- and time spent on various productive activities by sex

Figure 3.4-5 indicates the percentage of respondents involved in various activities, and the amount of time spent on each activity. In general, all age groups reported a significant percentage on caring for parents and children. However, the highest percentage for care-related activities reported by each group were as follows: caring for parents (58%) and caring for other adults (17%) for the youngest age cohort of 40 years old or less; caring for children (76%) among middle-aged group; caring for grandchildren (15%) among the oldest age cohort. In terms of giving back to the society, the oldest group (age 50 and above) reported the highest percentage of volunteering (34%), followed by the middle-aged group (28%) and the youngest age cohort (26%). On the other hand, the highest percentage of those who reported of taking up side jobs were among the youngest age group (30%), while the oldest age group reported the least percentage of 20%. A higher percentage of middle-aged respondents was involved in volunteer work compared to other age cohorts.

Among those who were involved in providing care, the youngest age cohort reported to have the highest mean hours spent per week for providing each and every type of care – i.e. 37 hours per week for caring for parents, 44 hours per week for caring for other adults, 60 and 32 hours per week for caring for children and grandchildren respectively. A similar pattern was observed for voluntary activities (about 16 hours/week) and side employment (about 25 hours/week).

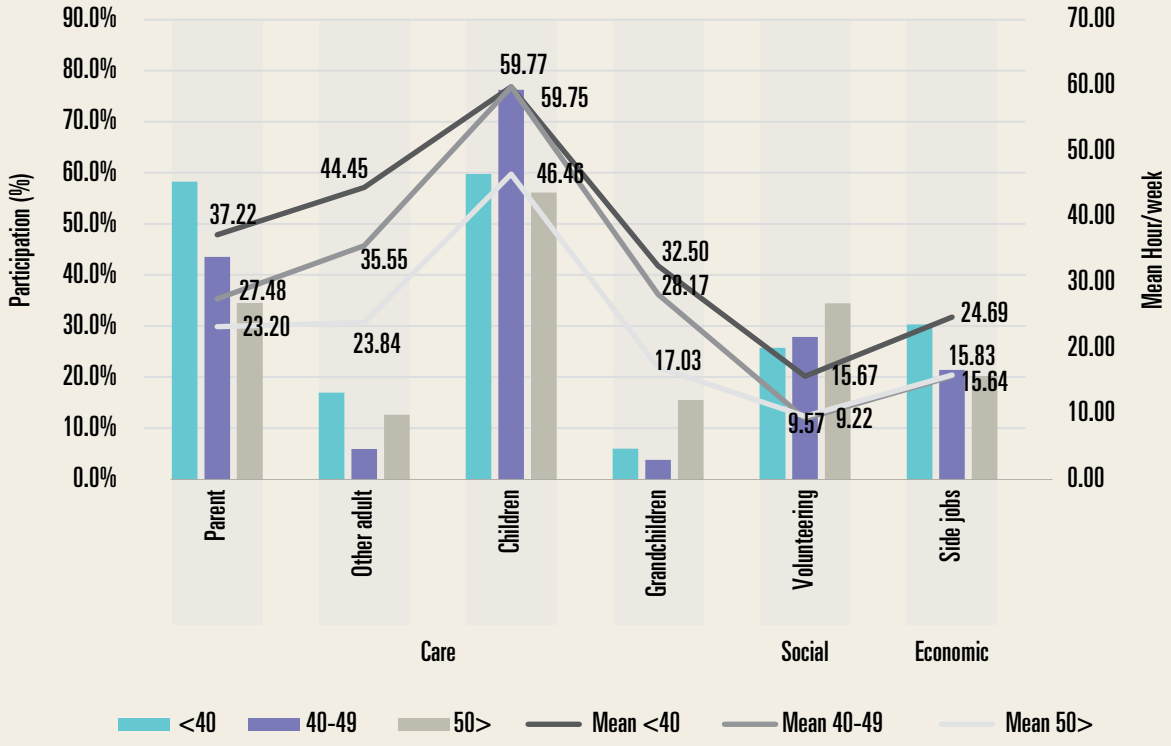


Figure 3.4-5: Percentage of respondents involved in- and time spent on various productive activities by age categories

Figure 3.4-6 indicates that respondents with relatively lower education attainment reported the highest percentage in almost all activities except caring for parents (41%) and caring for own children (63%) compared to tertiary educated respondents. They also consistently spent more time per week in all activities except for own children compared to their more educated respondents. Further analysis indicated that 15% of the lower educated respondents had spouses who were full time housewives compared to only 10% among tertiary educated respondents.

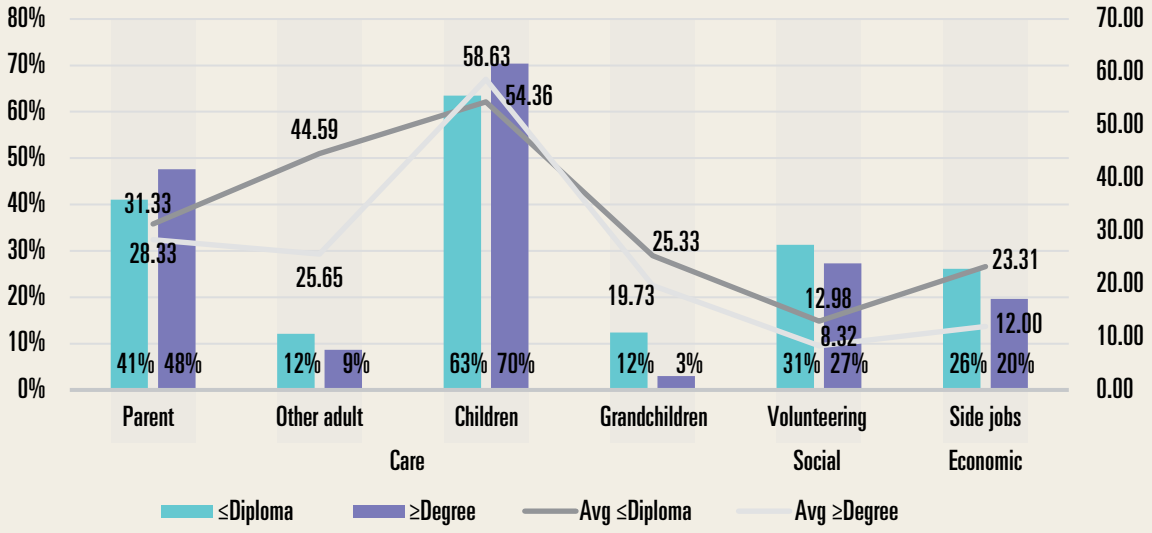


Figure 3.4-6: Percentage of respondents involved in- and time spent on various productive activities by education attainment

Figure 3.4-7 indicates that those with less number of working years reported the highest percentage for participation in productive activities than their counterparts on the provision of care for parents (52%) and children (69%) and involvement in supplementary income generation activities (25%). Those with longer working years reported higher percentage of providing care for grandchildren (11%) and participation in volunteerism (32%). However, those with less number of years of experience consistently indicated to have spent more time on those activities compared to the matured counterpart except for voluntary works (10.00 hours/week compared to 11.29 hours per week).

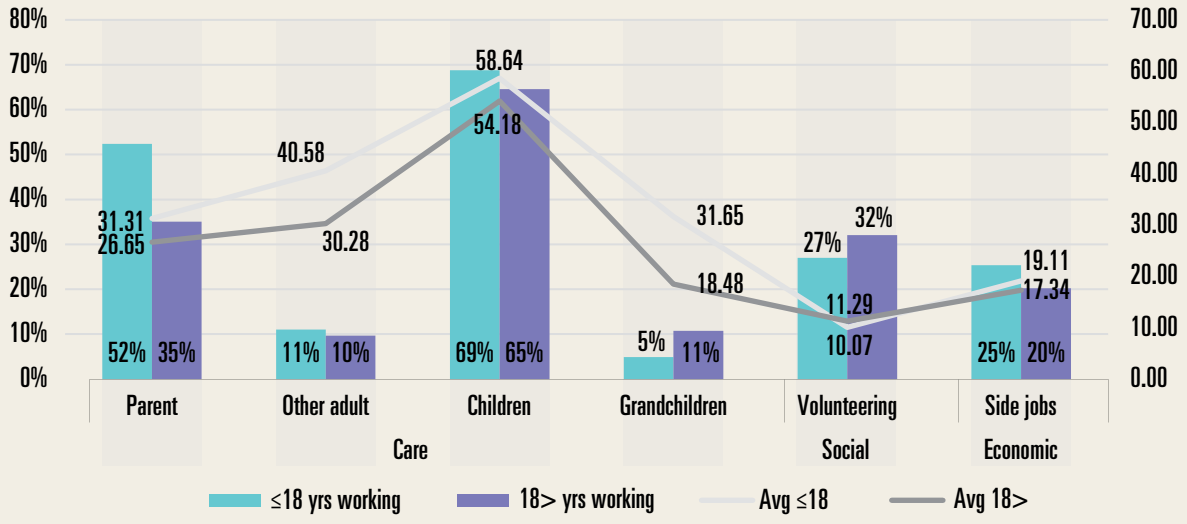


Figure 3.4-7: Percentage of respondents involved in- and time spent on various productive activities by length of service

Current government employees who participated in the study reported to have been involved in various productive activities such as providing care, involve in volunteer works and even taking up side jobs. However, almost all were involved in family-centred productive activities – i.e. majority concentrated on providing care for their immediate family, and one-fourth were involved in second jobs that helped generate additional income to the family. Only a small number of respondents went the extra mile to be involved in voluntary work and community services. Data shows that pre-retirees spent many hours in caring activities on top of their fulltime work. There is a need to further investigate their work-life balance and its effect on productivity and well-being.

3.4.3 Valuation of Productive Activities

The study adopted household production model to value the productive activities beyond working hours of the respondents – i.e. caring for parents/in-laws, caring for adults, caring for children, caring for grandchildren, volunteer works and additional jobs. Household production is defined as the production of goods and services by the members of a household, for their own consumption, using their own capital and their own unpaid labour (Ironmonger, 2000). Goods and services produced by households for their own use include meals, clean clothes, and child care. The study also included volunteer work as one of the productive activities. Two methods were used to value productive activities of the respondents: (i) Market Replacement Rate (MRR) which was based on the hourly market value of the closest (paid) activity to the (unpaid) productive activity undertaken by a person and (ii) the Opportunity Cost (OC) which referred to the potential earning forgo by the respondents for doing the activities and government minimum wage of RM1,000 per month and converted to RM6.25 per hour was used to calculate the OC. The activities' estimated rates per hour and sources are given as follows:

Table 3.4-4: Estimated value of activities using MRR

Activities	MRR (RM)	Sources*
Caring for parents/ in-laws	16.88	Local Elderly Centre/Home Nursing
Caring for adults	16.88	Assume the same rate as caring for parents/in-laws and spouse
Caring for children	3.00	Taska 1 Malaysia
Caring for grandchildren	3.00	Taska 1 Malaysia
Volunteerism	6.25	Minimum Wage
Side jobs	6.25	Minimum Wage

*Note: The calculation would differ if rates from different sources are used.

3.4.3.1 Economic Contributions (ECs)

The annual total for EC were calculated using MRR and OC methods using the following formulas:

$$EC\ (MRR) = 52 \times (1) \times (3) \times (4)$$
$$EC\ (OC) = 52 \times (2) \times (3) \times (4)$$

Where:

(1) = the estimated cost using MRR (Table 3.4-4)
(2) = the estimated cost using OC
(3) = the total number of pre-retirees involved in each productive activity, calculated by multiplying the percentage of pre-retirees involved in each productive activity (Table 3.4-6)
(4) = the mean for total weekly hours spent on each productive activity listed was also obtained from our data sample (Table 3.4-6)

Table 3.4-5 shows the value of economic contribution by different backgrounds for each activity using MRR and OC methods. The highest economic contribution was for caring for parents followed by caring for children. The table also shows that female's contribution tended to be much higher since more female respondents were involved in care giving and they also spent slightly more time caring for others. The economic contributions using MRR was much higher compared to OC since the value of the minimum wage used was much lower compared to the market replacement rate. The highest economic contribution was made by those who had worked for less than 18 years followed by female respondents and the non-degree group. The total yearly economic contribution of respondents who performed six activities measured was RM16.3 million.

The value used to calculate opportunity cost was the minimum wage of RM6.25 per hour. The total economic contribution of the respondents in this study using the OC methodology was RM14.57 million as compared to RM16.33 million using MRR. Figure 3.4-8 shows the value of annual economic value of respondents' contribution by selected background. In general, the MRR methodology resulted in a slightly higher value compared to the OC methodology since the minimum wage used was standard for all groups. The researcher was unable to impute the value of economic contribution to all pre-retirees since the breakdown of the data by selected background was not available.

Table 3.4-5: Estimated monetary value of pre-retirees' productive activities by selected backgrounds using MRR and OC

Activities	Sex		Age			Education attainment		Length of service		All
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years	
MRR calculation based on study sample										
Caring for parent(s)/ in-law(s)	3,346,899	4,601,218	2,972,973	3,666,404	1,221,842	3,795,434	4,152,683	5,468,445	2,479,672	7,948,117
Caring for adult(S)	1,047,168	1,255,197	1,131,433	686,408	397,625	1,604,545	697,819	1,531,691	770,673	2,302,364
Caring for child(ren)	1,738,932	2,393,664	811,200	2,507,388	811,824	1,857,024	2,286,492	2,341,716	1,791,972	4,133,688
Caring for grandchild(ren)	132,600	71,136	60,840	52,728	77,064	169,884	33,852	98,748	95,160	193,908
Volunteerism	533,650	201,825	229,125	290,550	214,500	451,425	284,050	350,350	385,125	735,475
Side job	658,450	364,975	409,175	391,300	216,125	734,825	288,600	645,775	377,650	1,023,425
OC calculation based on study sample										
Caring for parent(s)/ in-law(s)	1,239,225	1,703,650	1,100,775	1,357,525	452,400	1,405,300	1,537,575	2,024,750	918,125	2,942,875
Caring for adult(S)	387,725	464,750	418,925	254,150	147,225	594,100	258,375	567,125	285,350	852,475
Caring for child(ren)	3,622,775	4,986,800	1,690,000	5,223,725	1,691,300	3,868,800	4,763,525	4,878,575	3,733,275	8,611,850
Caring for grandchild(ren)	276,250	148,200	126,750	109,850	160,550	353,925	70,525	205,725	198,250	403,975
Volunteerism	533,650	201,825	229,125	290,550	214,500	451,425	284,050	350,350	385,125	735,475
Side job	658,450	364,975	409,175	391,300	216,125	734,825	288,600	645,775	377,650	1,023,425

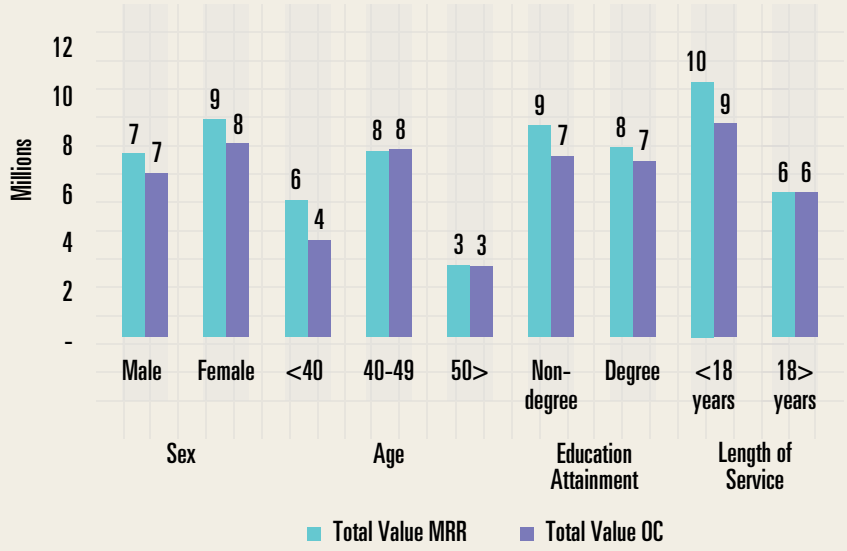


Figure 3.4-8: Total economic contribution of pre-retirees' productive activities by selected backgrounds

Table 3.4-6 reports the calculation of total ECs of government employees in Klang Valley based on the percentage of involvement of the respondents in the study. We could see that the total (annual) ECs by the MRR method was approximately RM11 billion whereas a more prudent method of OC was at approximately RM9.8 billion.

According to Figures 3.4-9 (1) and 3.4-9 (2), more than 90% of the ECs were from the productive activities of caring for the family members. The remaining ECs were attributed to volunteerism and additional jobs.

Table 3.4-6: Total economic contributions of pre-retirees

Activities	% pre-retirees (3)	Estimated no. of government employees (Klang Valley) involved	Mean (Total weekly hours) (4)	Annual total (RM) MRR	Annual total (RM) OC
Caring for parent(s)/ in-law(s)	44%	208,086.79	29.78	5,438,242,068.03	2,014,163,728.90
Caring for adult(s)	10%	48,842.58	36.33	1,557,019,447.49	576,673,869.44
Caring for child(ren)	67%	314,114.66	56.63	2,775,136,703.30	5,781,534,798.54
Caring for grandchild(ren)	8%	36,513.43	25.21	143,614,323.13	299,196,506.53
Volunteerism	29%	137,818.05	10.39	465,254,161.31	465,254,161.31
Side job	23%	107,822.34	18.94	663,868,081.78	663,868,081.78
Grand Total				11,043,134,785.05	9,800,691,146.50
EC/person per year				23,494.13	20,850.85

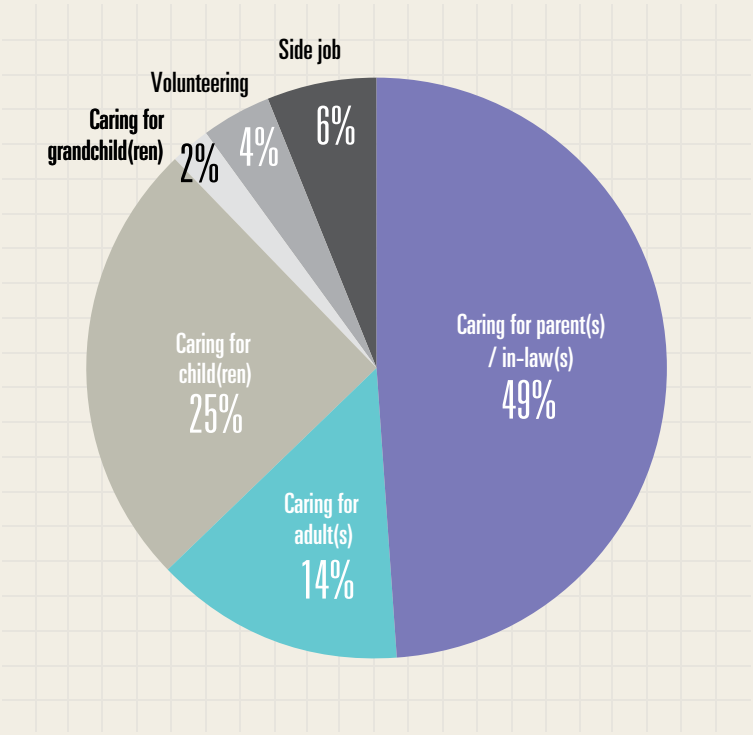


Figure 3.4-9 (1): Percentage of total annual Economic Contribution by activities using MRR

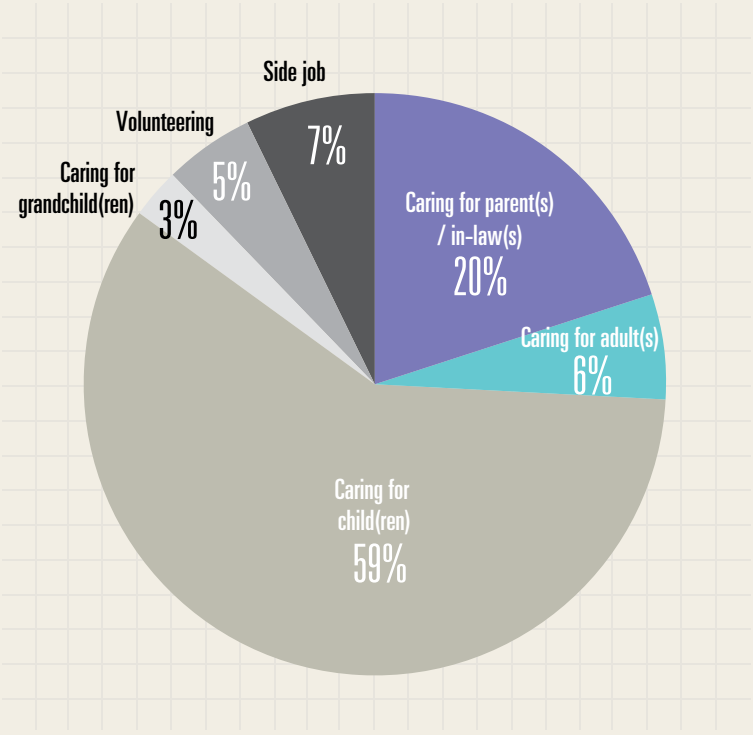


Figure 3.4-9 (2): Percentage of total annual Economic Contribution by activities using OC

3.4.3.2 Government Expenditure on the Government Employees in Malaysia

In February 2017, the cost of annual payroll of the government employees was at around RM74.5 billion. It was also reported that there was one government employee for every 19.37 people in Malaysia, in comparison to 71.4 in Singapore, 1 to 110 in Indonesia; 1 to 50 in South Korea; 1 to 108 in China; 1 to 28 in Japan; 1 to 84 in Russia; and 1 to 118 in Britain. The large size of the civil service in Malaysia has caused yearly increment in government expenditure and became a burden to the government.[2]

Another large amount of the government expenditure on government employees in Malaysia came from medical or healthcare expenditure. There was an increase in Malaysia's total health expenditure in the recent years. The Health Minister pointed out that health expenditure per person in Malaysia had risen by two and a half times in 17 years, from RM641 in 1997 to RM1,626 in 2014. The figure in 2017 for the total healthcare expenditure in Malaysia was around RM52 billion, in which 52% and 48% were attributed to public and private health sectors respectively[3].

Table 3.4-7 provides and approximation values of the cost of government employees in Malaysia taking into account only the payroll and medical costs. These were the biggest contributors to the government expenditure related to its employees. By taking into account the total (annual) ECs by the pre-retirees from the productive activities outside their employment, we could calculate the gap or difference i.e. EC/person (refer to Table 3.4-6) minus (Payroll + Medical Costs) /person (refer to Table 3.4-7) amounted to -RM14,671.54. Technically, the payroll cost incurred to the government was for the productivity or contribution made by the government employees in their employment.

Table 3.4-7: Upkeep costs of the Government Employees in Malaysia[4]

Upkeep costs	Malaysia (RM)	Klang Valley (RM)
Payroll Cost	74,500,000,000	21,886,144,375
Medical Cost	52,000,000,000	15,276,235,000
(Payroll +Medical) Costs	126,500,000,000	37,162,379,375
Payroll Cost/Person	46,563	46,563
Medical Cost/Person	32,500	32,500
(Payroll + Medical) Costs/Person	79,063	79,063
Government Employees	1,600,000	470,038
% (Government Employees)	100%	29%

The valuation of productive activities from the household production perspective enabled us to measure the economic contributions of the pre-retirees after their employment in the government. This gave us an insight that despite the rising expenditure of the government due to the bloated size of its government force, the government employees also contributed significantly back to the economy even in retirement. However, the contributions were heavily attributed to caring for family members and not so much on the community activities. The burden on the government can be reduced if the right interventions were taken such as increasing the productivity of government employees during and after their employment by encouraging specially-tailored programmes targeting objectives in line with this intention.

[2] Source: http://www.freemalaysiatoday.com/category/nation/2017/02/01/malaysia-has-most-bloated-civil- service-in-the-world (See Appendix 1)
[3] Source: https://www.nst.com.my/news/2017/03/221490/health-ministry-introduce-new-module-reduce- healthcare-cost (See Appendix 2)
[4] Approximation value based on the publicly available figures in 2017

Key Findings:

Key Findings:

- Only 31% indicated they planned to work for pay after retirement.
- The top reason they plan to work in retirement was to keep contributing to society.
- The top most reason do not plan to work was they wanted to rest and focus on spiritual/ religious activity.
- Majority of the respondents were involved in caring for their immediate family: Children (67%), care for parents (44%).
- Only one-third were involved in volunteer works (spent 10 hours weekly).
- Pre-retirees do contribute to productive activities beyond working hours. The total estimated value of pre-retirees productive activities are RM 11 billion (MRR) and RM 9.8 billion (OC).

3.5 Health and Self-Care

Health care is a large amount of total expenditure to plan for in retirement. It is non-discretionary and it should be prioritized in the calculation of income needs in retirement. There is an increase of around 10% to 15% every year in the rate of medical costs in Malaysia[5]. The treatments of the diseases and injuries are generally more expensive for the elderly. The aspect of self-care is important for the overall health of a person. Without self-care, it is easier to fall ill, and this will lead to a costly medical expenses. This section focuses on the issues pertaining to health and self-care of the pre-retirees respondents.

3.5.1 Health Status

There were 78.7% of pre-retirees who perceived their health status as good and only 1.2% of the pre-retirees' who perceived their health status as very poor (Figure 3.5-1). There were 7.4% male respondents who perceived their health status as bad followed by 7.1% older age group who perceived their health status as bad. The younger group tended to perceive their health as good compared to the older age group.

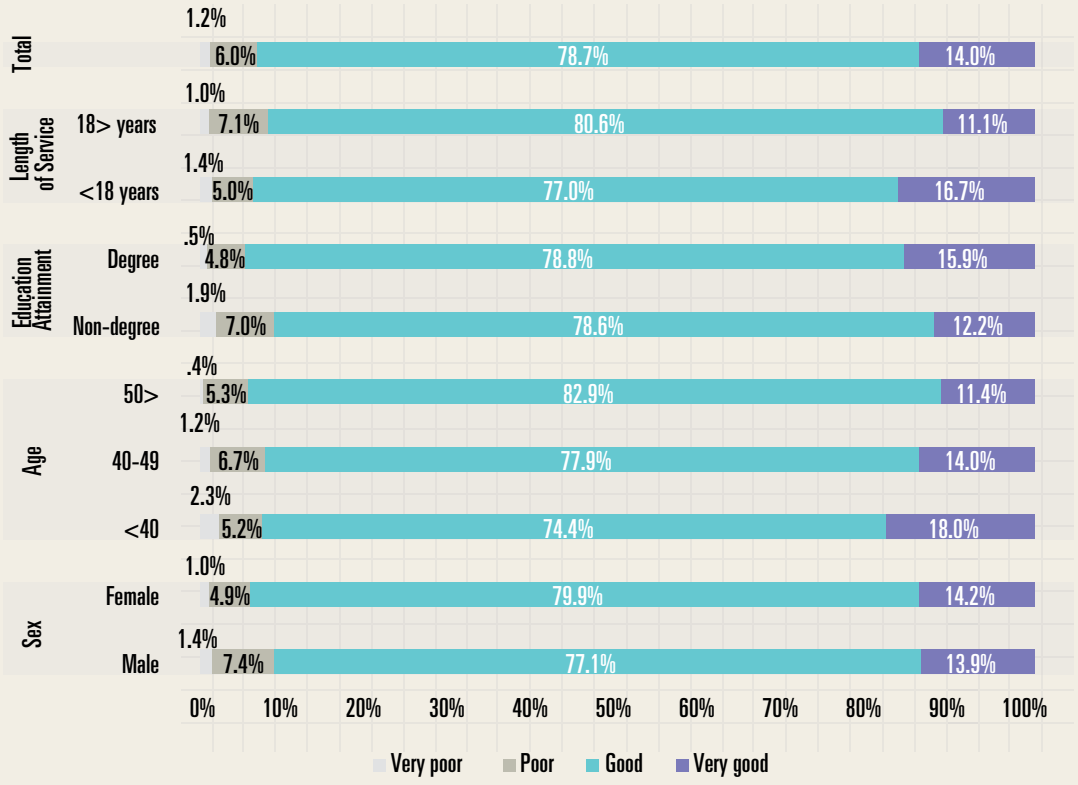


Figure 3.5-1: Self-rated health status by selected background

[5] Source: https://www.thestar.com.my/business/business-news/2015/10/04/planning-for-healthcare-costs-in- retirement (See Appendix 3)

The pre-retirees were asked to provide information on types of diseases they had been diagnosed with. Table 3.5-1 shows the percentage of respondents who reported having different types of diseases by selected background. Hypertension (24.13%), hyper cholesterol (15.60%) and diabetes (12.53%) were the top three diagnosed diseases among the pre-retirees. On the other hand, the least contracted diseases among the pre-retirees were incontinence and tuberculosis. Studies showed that, the top three diseases are interrelated to each other. A patient's health condition deteriorates when he or she is diagnosed with diabetes. Diabetes may induce arterial stiffening and increase the susceptibility of the arterial wall to atherosclerosis at any given age. Atherosclerosis is a condition of narrowing arteries which causes high blood pressure and if it is not treated, the patient is at the risk of developing stroke, heart failure, heart attack and kidney failure. Therefore, it is crucial for persons with hypertension and diabetes to be concerned about their lifestyle and diet to ensure better quality of health.

Table 3.5-1: Types of diseases diagnosed among pre-retirees by selected background

Types of diseases	Sex		Age			Education attainment		Length of service		All
	Male	Female	<40	40-49	50>	Non-degree	Degree	<18 years	18> years	
Hypertension	26.5%	17.2%	6.9%	17.2%	37.9%	25.2%	17.0%	11.9%	31.3%	21.2%
Diabetes	14.8%	8.3%	2.3%	10.4%	18.2%	12.6%	9.4%	5.8%	16.7%	11.0%
Heart disease	2.8%	1.4%	0.0%	1.6%	4.0%	2.1%	1.9%	0.7%	3.4%	2.0%
Cancer	0.0%	0.6%	0.0%	0.0%	1.2%	0.7%	0.0%	0.0%	0.7%	0.4%
Asthma	4.7%	6.7%	6.4%	6.1%	5.1%	5.9%	5.8%	6.5%	5.2%	5.9%
Eczema/ Psoriasis	0.8%	3.2%	2.9%	2.4%	1.6%	2.1%	2.4%	1.8%	2.7%	2.2%
Kidney problem	0.8%	0.4%	0.6%	0.0%	1.6%	0.9%	0.2%	0.2%	1.0%	0.6%
Gout	4.2%	0.2%	0.0%	1.6%	3.2%	2.1%	1.7%	1.3%	2.5%	1.9%
Stroke	0.3%	0.2%	0.0%	0.2%	0.4%	0.5%	0.0%	0.0%	0.5%	0.2%
Tuberculosis	0.3%	0.0%	0.0%	0.2%	0.0%	0.2%	0.0%	0.2%	0.0%	0.1%
Hyper cholesterol	14.8%	12.8%	2.9%	12.9%	22.5%	14.0%	13.4%	8.1%	19.7%	13.7%
Others diseases/ illness	3.6%	9.9%	7.5%	7.5%	6.7%	7.1%	7.4%	8.1%	6.4%	7.3%
Cataract	1.9%	0.4%	0.0%	0.7%	2.4%	1.8%	.2%	.4%	1.7%	1.1%
Gastric	5.0%	6.5%	9.8%	5.9%	2.8%	4.1%	7.7%	7.2%	4.4%	5.9%
Hearing problem	0.8%	1.0%	0.6%	0.9%	1.2%	1.6%	0.2%	0.7%	1.2%	0.9%
Vision problem	11.7%	8.1%	5.8%	11.8%	8.7%	11.4%	7.7%	8.3%	11.1%	9.6%
Incontinence	0.0%	0.2%	0.0%	0.0%	0.4%	0.2%	0.0%	0.0%	0.2%	0.1%

There were 43.5% respondents who were healthy and did not have any of the diseases at all and they comprised of the younger group who had worked for less than 18 years and female respondents. The diseases were regrouped into regular diseases (13 items) and age-related diseases (5 items). Figure 3.5-2 shows the percentage of respondents by the number of regular diseases and selected background. Fifty one percent of the respondents had no regular diseases. A higher percentage of theolder group had at least one disease.

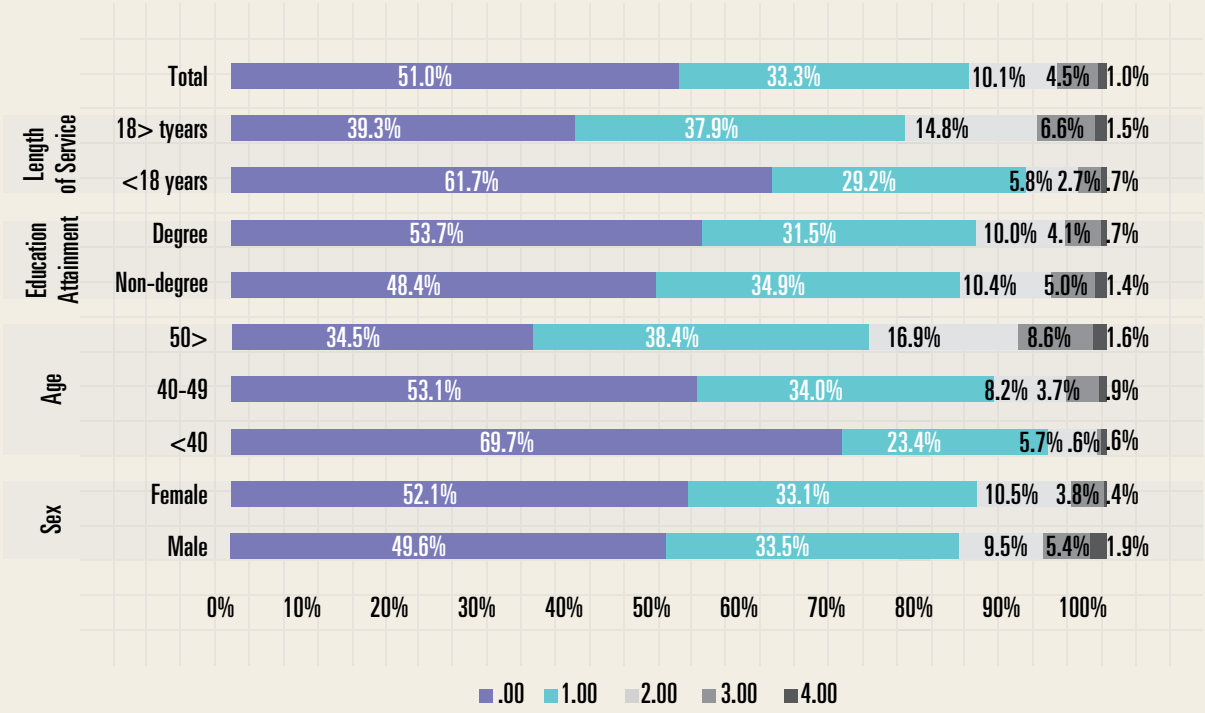


Figure 3.5-2: Percentage of respondents by number of regular diseases by selected background

Five age-related diseases were identified, namely; incontinence, cataract, arthritis, hearing problem and vision problem. There were 86.6% respondents who were free of these five age-related diseases (Figure 3.5-3) and only 11.6% who had at least one age-related disease and less than 2% had two or more age-related diseases. A higher percentage of male respondents tended to have age-related diseases compared to female respondents. There were 15% of those in the age group 40 to 49 with age-related diseases compared to 6.3% among those in the younger age group.

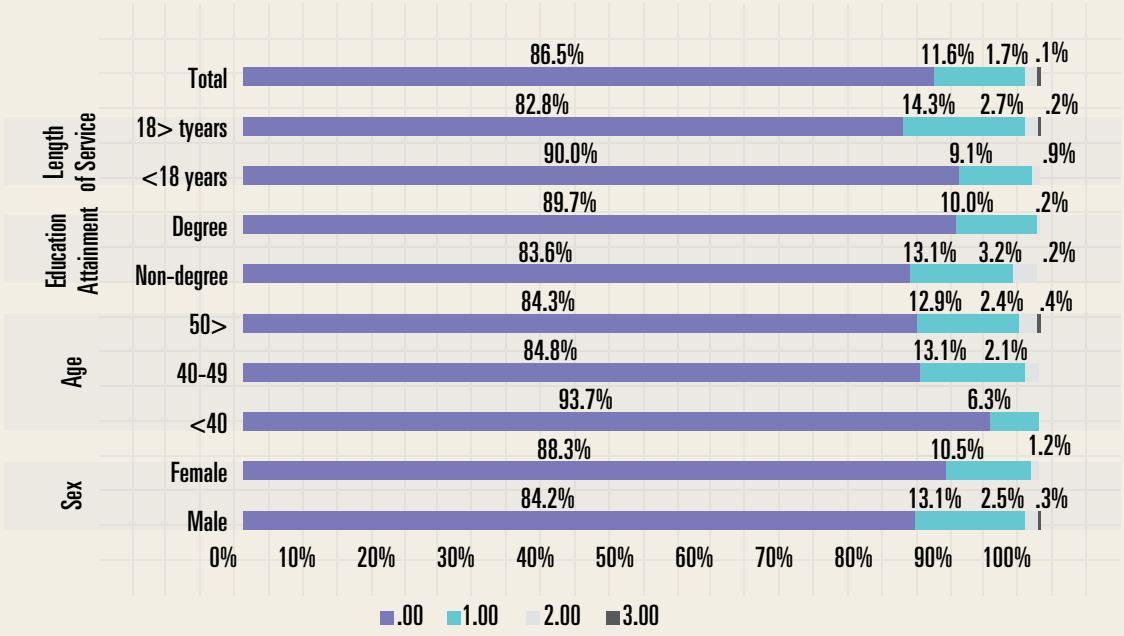


Figure 3.5-3: Percentage of respondents by number of age-related diseases by selected background

The respondents' diseases tended to limit their daily activities. Figure 3.5-4 shows to what extent the diseases they had limit their daily activities hence their productivity. More than one-third of the respondents indicated that the diseases they had limited their daily activities including work. A higher percentage of older workers, those who had worked for more than 18 years and non-degree holders indicated that their illness limited their daily activities.

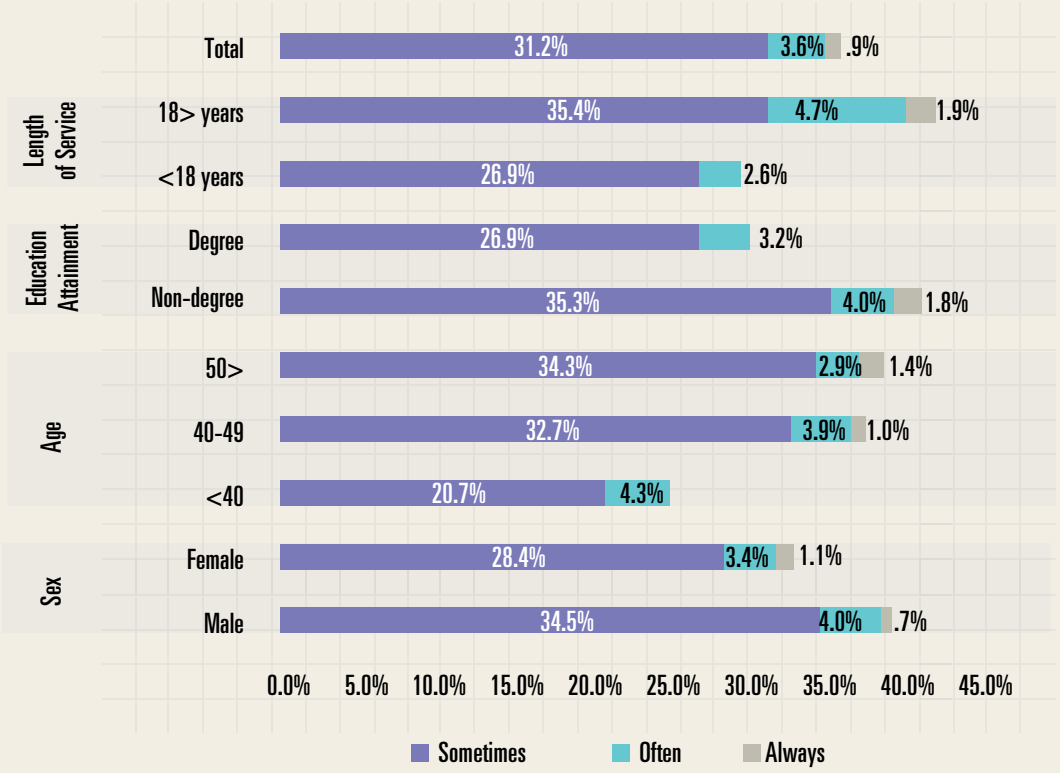


Figure 3.5-4: The extent that illness limits daily activities by selected background

Respondents were asked how often they fell in the last six months and their responses are shown in Figure 3.5-5. There were 15.5% respondents who indicated that they experienced falls in the last six months with a majority who fell once or twice. Figure 3.5-5 clearly shows that a higher percentage of age group below 40 fell in the last six months compared to the older age group. Those below 40 tended to have greater exposure to overcrowding and hazardous environments which may contribute to higher incidence of falls. As people aged, the risk of fall also increases. As such those who experienced a fall in their younger age may have a higher likelihood of falling as they grow older.

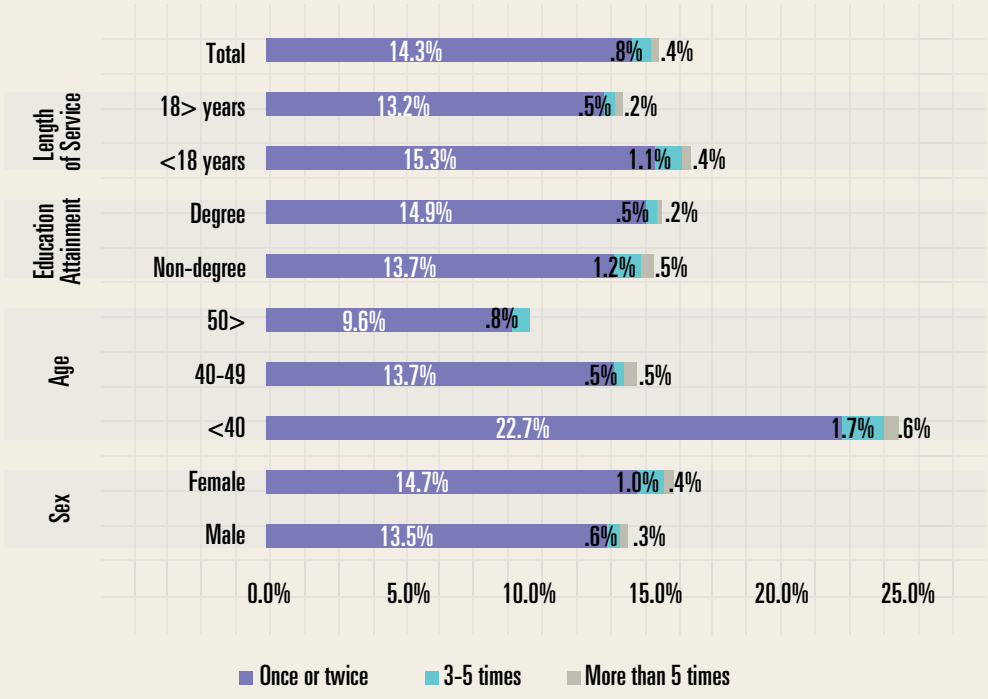


Figure 3.5-5: Percentage of respondents by frequency of fall by selected background

In addition to falling, respondents were also asked if they had any physical disability. Figure 3.5-6 shows percentage of respondents who had disabilities by selected background. There were 3.4% respondents who were currently employed with some form of disability. The relevant department should provide support to ensure their physical disability did not affect productivity. The highest percentage with physical disabilities noted was among female respondents and those non-degree groups and the lowest was among the younger age group. The common physical disability mentioned was poor eye sight, knee problems and limited mobility due to health reasons.

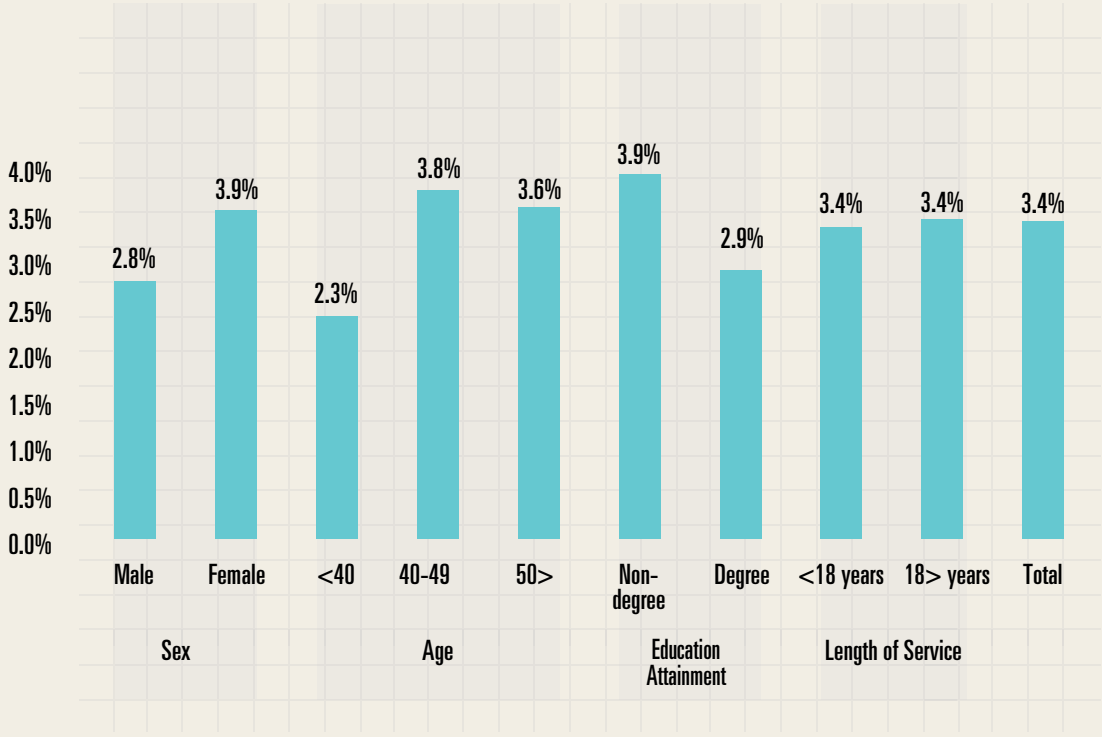


Figure 3.5-6: Percentage of respondents with physical disabilities by selected background

Finally, the respondents were asked to indicate if they took any supplement and how much they spent monthly. The percentage of respondents who took supplement and mean amount of money spent monthly is shown in Figure 3.5-7. About 44% of the respondents took supplement and the mean expenditure was RM260.83 per month. The amount spent on supplements was almost RM10.00 per day. A higher percentage of females took supplements compared to male and the mean expenditure by female was also higher compared to mean spent by male respondents. When the age groups were compared, the percentage of the younger age group who took supplements was lower but the mean spent was much higher compared to the older age group. Respondents in the age group below 40 spent on the average RM373.18 compared to RM241.46 among those aged 50 and older. Pre-retirees have non-communicable diseases (NCDs) which would last a life time. If not treated, it will increase financial burden of health care cost to the government and reduce productivity. Preventive health care programs should be introduced in the workplace to improve health status of employees.

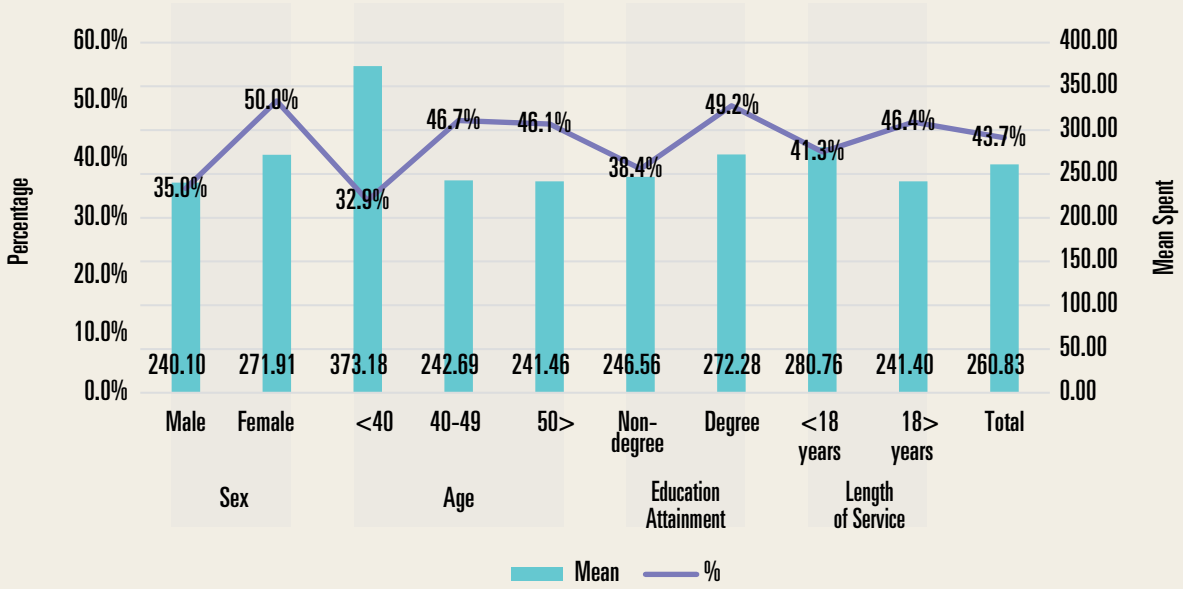


Figure 3.5-7: Percentage of respondents who took supplements and mean spent by selected background

3.5.2 Health Care Utilization

As government employees, the respondents have the privilege of getting health care services at very minimal cost. The study identified the types of facilities used by pre-retirees to get treatments in the past six months for outpatient cases. Half of the pre-retirees (50.8%) consulted doctors in government clinics and 26.5% in government hospitals. There were 36% respondents who visited either government clinics or hospitals while 19.6% of the respondents visited both government clinics and hospitals. As for private facilities, only 31.4% pre-retirees visited private clinics and 5.7% pre-retirees visited private hospitals (Figure 3.5-8). Less than 10% of the respondents visited alternative health care providers or traditional medicine practitioners.

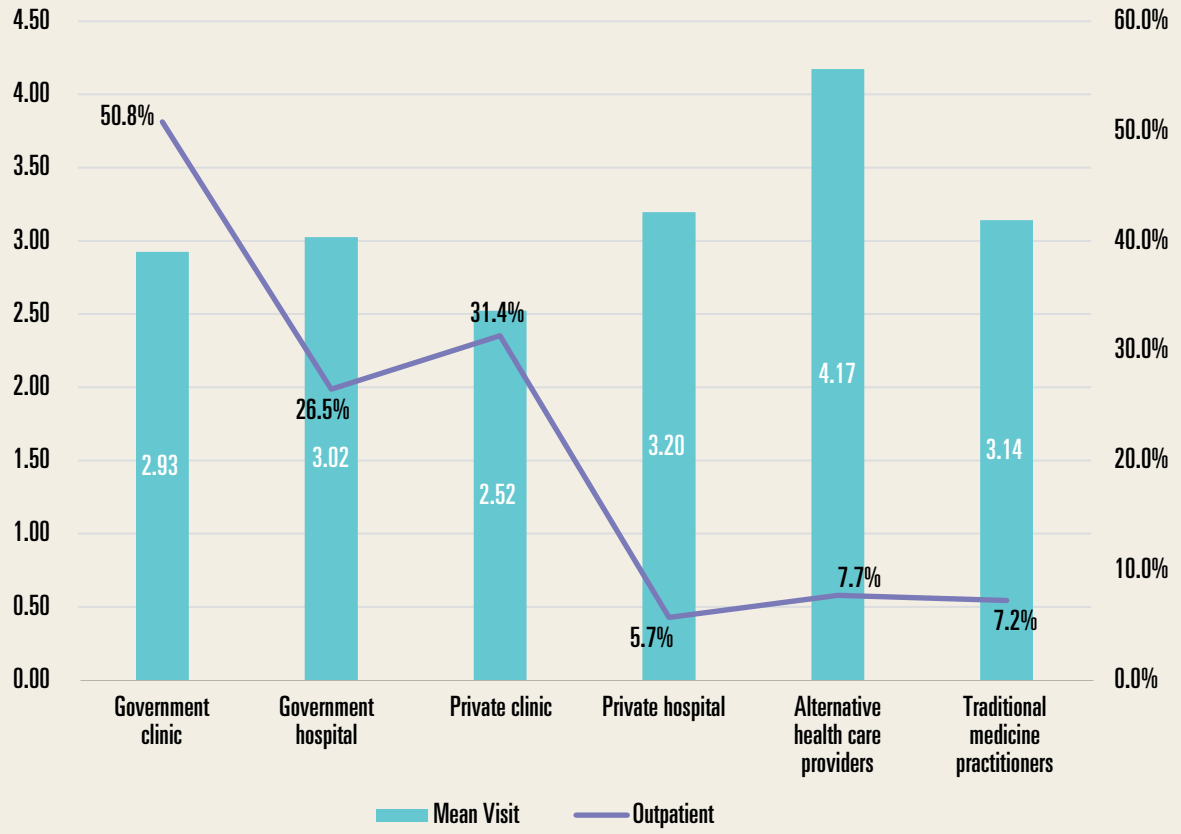


Figure 3.5-8: Health service utilization (Outpatient)

To grasp the extent of services utilized, respondents were also asked to indicate the frequency of visits to the respective service providers in the last six months. The mean visit is also shown in Figure 3.5-8. Though the percentage who visited government clinics was high, the mean visit within six months was much lower compared to visits to government hospitals. A similar trend was also observed for private clinics. Those who went to private hospitals tended to have a higher mean visit compared to those who went to private clinics. A visit to a hospital may mean a more serious health problem which required more consultation as compared to visit to a clinic. Majority of government employees visited government facilities compared to private clinics or hospitals as the cost is subsidized. Those with health insurance could afford to patronise the private health care services for services that were covered under the insurance policy. This situation (higher visits to government medical facilities) could be due to the high medical cost charged by private facilities.

Besides these two facilities, there was a handful of pre-retirees who used alternative health care providers and traditional medicine practitioners' services. Pre-retirees who visited health care providers were 7.7% and traditional medicine practitioners were 7.2%.

As for the inpatient facilities, there was a low volume of pre-retirees who sought treatment under inpatient treatment. Only a total of 7.2% pre-retirees visited government hospitals and 3.7% pre-retirees visited private hospitals. As of the other retirees, less than 2% pre-retirees chose alternative medical facilities and most of the pre-retirees did not need inpatient treatment. (Figure 3.5-9)

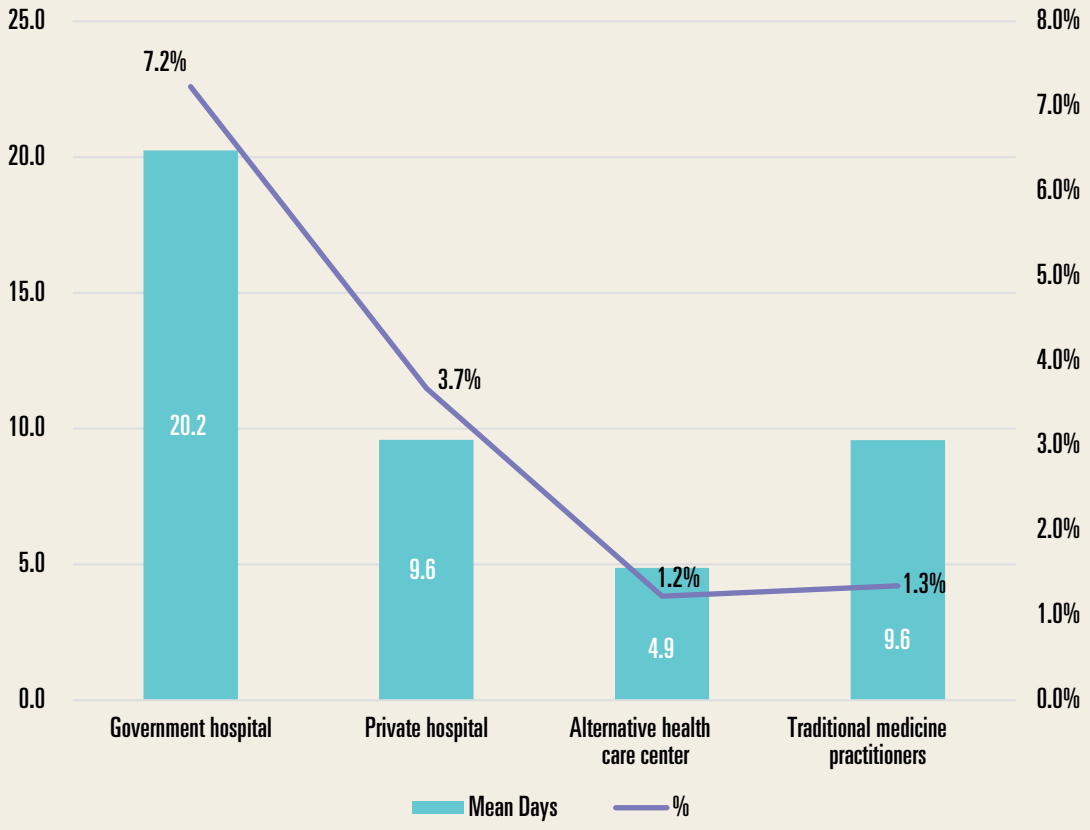


Figure 3.5-9: Health service utilization (Inpatient)

Out of the 7.2% pre-retirees who were admitted into government hospitals, 58.9% were admitted once while 58.6% out of 3.7% pre-retirees were admitted into private hospitals once. The mean of days stayed in the facilities can be seen in Figure 3.5-9. Mean length of stay in government hospitals was much higher compared to other facilities. A rather small proportion of pre-retirees opted for alternative medical services such as alternative health care providers and traditional medicine practitioners.

3.5.3 Self-care

In addition to knowing their specific health related situations, the study used 10-item scale to measure the level of self-care among the respondents. The instruments had a Cronbach's alpha of 0.809 indicating the ten items used for measuring similar construct. The instruments measure habits that can affect life today and the future which encompass of physical, mental/emotional and spiritual practices. Respondents were asked to indicate how often they did each of the ten items listed. Figure 3.5-10 shows the response of the pre retirees. The data shows that 45.2% of the respondents always got at least six hours of sleep and only 2.1% failed to do so. There were 38.9% and 32.4% of the respondents often and sometimes practiced healthy eating habits respectively. Less than half of the respondents reported that they often took their medication as prescribed and on time (36.1%), while 9.1% never took their medicines on time.

In terms of emotion management, 49.3% of the respondents were able to control their emotions most of the time and 39.5% shared their emotions with people whom they trust. There were 40.2% of the respondents often discussed their emotions and stress with people close to them. Meanwhile, only 0.8% of the respondents could not control their emotions and 7.1% were not comfortable at all to share their emotions.

From our study, more than 50% of the respondents were engaged in spiritual activities. The frequencies of involving in spiritual activities for everyone are different. About 44% of the respondents were always involved in spiritual activities and only 0.4% was inactive in spiritual activities. Data also shows that more than 90% of the respondents were involved actively in leisure activities and spent more time with their families. Approximately 46% of the respondents always spent time with family and friends and 22.2% always participated in their favourite leisure activities. There were only 0.1% of the respondents were not interested in family activities and 1.7% were workaholics and not interested in leisure activities. An estimated of 34% respondents often performed health screenings and 6.6% did not care to do so. More than half of the respondents practiced healthy eating habits.

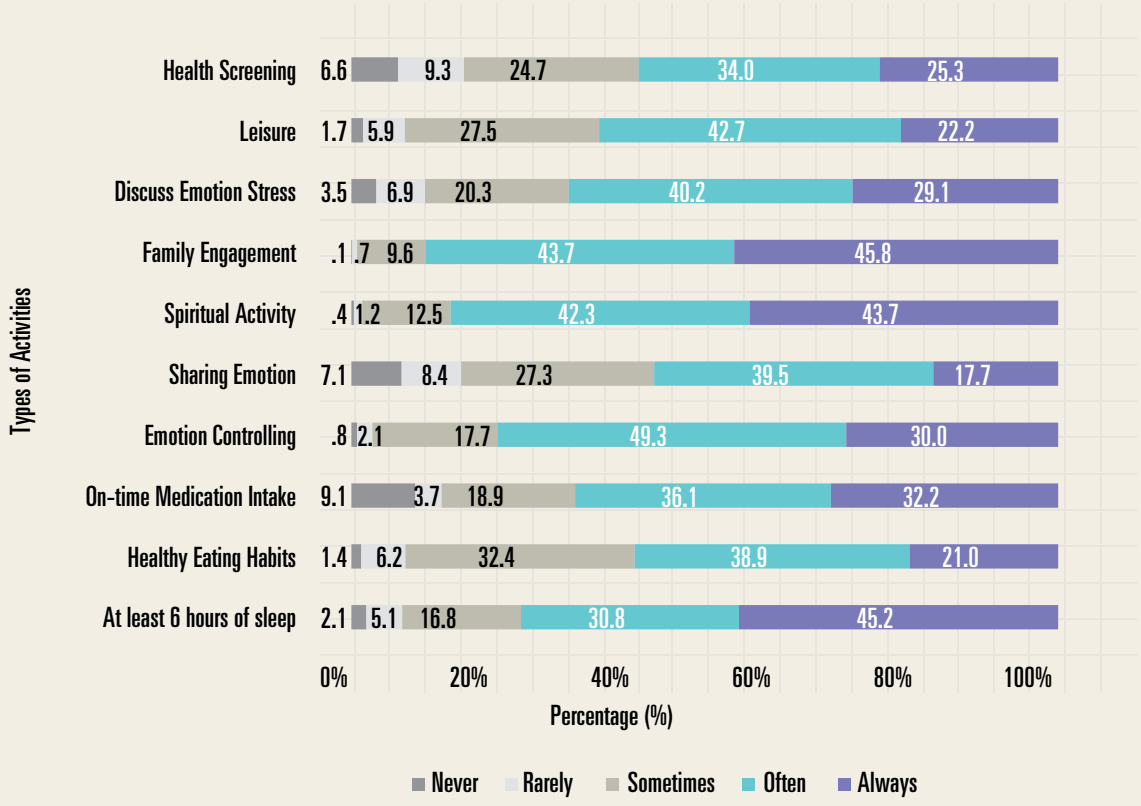


Figure 3.5-10: Self-care practices among pre-retirees

To grasp the overall self-care practices of the respondents, the score was computed and then grouped as low and high self-care. The cut off point for low and high self-care is 40. It is assumed that a high self-care person will often or always (answer 4 or 5) for each practices making the scale score of at least 40. The percentage of low and high self-care level by selected background is shown in Figure 3.5-11. The figure shows that more than half of the respondents practiced low self-care. A higher percentage of female respondents were in the high self-care group compared to male respondents and older age group also tended to be in the high self-care group. In conclusion, younger age group has lower self-care practices which expose them to higher risk of getting health problem in the future resulting in lower productivity. Therefore, early intervention should be implemented to set norms for self-care in order to foster a healthy and supportive work environment.

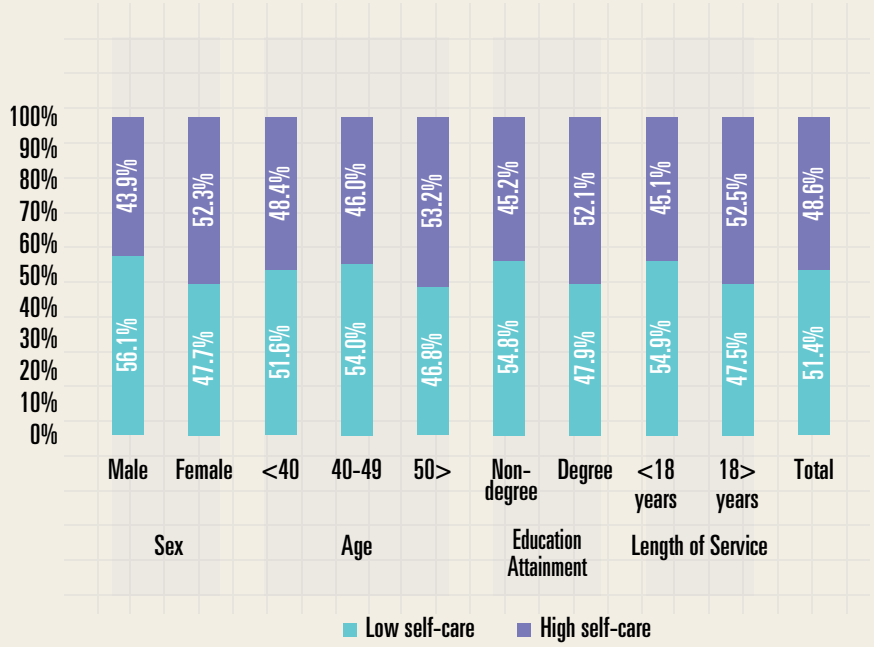


Figure 3.5-11: Percentage of respondents by level of self-care

3.5.4 Health Care Cost

The cost for health care was calculated for 863 pre-retirees. Figure 3.5-12 indicates the calculation of health care cost based on the number of visits. All the calculations for pre-retirees by way of health utilization were estimated using only the outpatient visits. The justification for such decision were as follows: (i) availability of relevant data; (ii) simplify the cost estimation as inpatient rate varies according to wards, diseases and method of treatment received. The total number of pre-retirees who visited government clinics and government hospitals in the past six months were 428 and 223 respectively. There was a total of 1,173 visits to government clinics and 623 to government hospitals during the six months period. The estimated cost per visit of RM60 is used for both government facilities which refers to Ministry of Health Patient's Official Receipt for Full Paying Patient (FPP) treatment cost per visit[6]. The value is used as there are no publish data available. The estimated total government cost for providing health care services per year was calculated using the following formula:

Health care services per year = [Total Visit (6 months) X 2] X RM60

[6] *Bayaran Perkhidmatan Perubatan Kesihatan dan Pergigian* under Full Paying Patient Scheme, Ministry of Health (See Appendix 4)

Table 3.5.2 shows the detailed calculation of the cost of health care borne by the government. Figure 3.5-12 shows the total cost of health care for one year based on number of respondents and number of their visits.

Table 3.5-2: Cost of health care services incurred by the government

Services	No of respondents getting treatment	Total visit/ 6 months	Estimated cost/ per visit (RM)	Total cost/ 6 month	Cost in one year (RM)
Government clinic	428	1,173	60	70,380	140,760
Government hospital	223	623	60	37,380	74,760

The table shows that respondents in the study frequented government clinics and the estimated cost of providing the services was RM140,760.00 per year. The respondents also visited government hospitals as outpatients and the estimated cost of providing the service was RM74,760.00 per year.

Respondents also used other ways of treatment such as alternative health care providers and traditional medicine practitioners. Alternative medicine healthcare providers usually charged the most expensive for their services, yet, there were 65 respondents used their medical services.

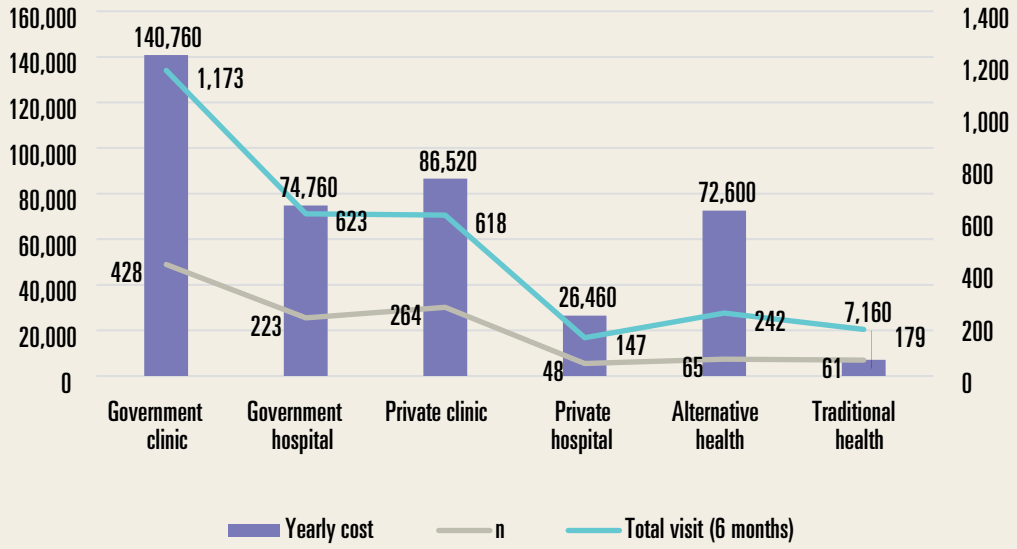


Figure 3.5-12: Health care costs for one year based on number of respondents and number of visits

The study also made an attempt to estimate the total health care cost based on diseases. The estimated total cost of treatment for hypertension, diabetes, heart diseases and hyper cholesterol were reviewed. It was assumed that for each of the diseases, the patients would have to make monthly visits to the doctor (a total of 12 visits for each disease in a year). The cost of treatment differed based on type of disease.

Table 3.5-3: Estimated cost per visit based on type of disease

Type of disease	Estimated cost per visit (RM)	Sources*	No. of pre-retirees with disease	Cost per person per year (RM)	Total cost per year (RM)
Hypertension	20.25	Alefan et. al (2009)	181	243.00	43,983.00
Diabetes	229.20	iMoney.my[7]	94	2,750.40	258,537.60
Heart disease	77.00	Patient's Hospital Bill[8]	17	924.00	15,708.00
Hyper cholesterol	105.00	Patient's Hospital Bill[9]	117	1,260.00	147,420.00

*Note: Referred sources of which the value for each disease was used as the basis for the calculation.

Hypertension treatment was estimated to cost RM20.25 per visit. Therefore, hypertensions treatment cost was estimated to be RM243 (12 X RM20.25) per person per year. There were 181 respondents who had hypertension, thus the estimated total cost was RM43,983 (181 X RM243) per year for government clinics (Figure 3.5-13).

The highest estimated cost to treat 94 respondents with diabetes was RM258,537.60. With the estimated cost of treatment for diabetes was RM229.20 per visit, thus, it cost RM2,750.40 (12 X RM229.20) per person per visit in a year.

The cost of treatment for heart disease and hyper cholesterol were RM77 and RM105 respectively. The number of respondents who received treatment in government clinics for heart diseases was 17 and 117 respectively. The estimated total government cost was RM924 (12 X RM77) for heart diseases and RM1,260 (12 X RM105) for hyper cholesterol per visit per person in a year.

7 https://www.google.com.my/amp/s/www.imoney.my/articles/heres-much-costs-treat-diabetes/amp (See Appendix 5)
8 See Appendix6
9 See Appendix6

This estimation was based on the respondents only. Administrative data is needed in order to obtain a more accurate estimate of the health care cost borne by the government.

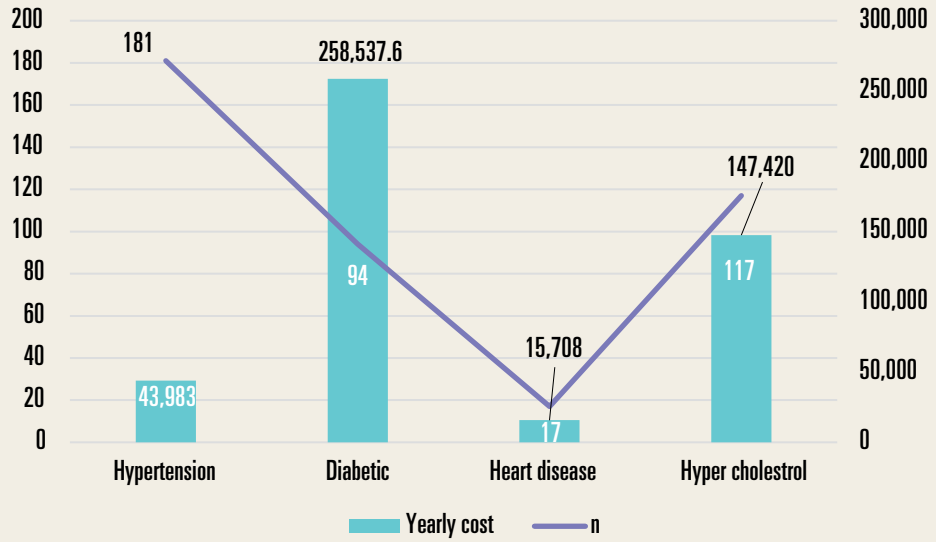


Figure 3.5-13: Health costs for four diseases among pre-retirees

Key Findings:

- There were 76.7% of pre-retirees who perceived their health status as good and only 1.2% of the pre-retirees' who perceived their health status as very poor.
- The top three diseases were hypertension (24.13%), hyper cholesterol (15.60%) and diabetes (12.53%).
- Half of the pre-retirees (50.8%) consulted doctors in government clinics and 26.5% in government hospitals.
- Younger age group has lower self-care practices which expose them to higher risk of getting health problem in the future resulting in lower productivity.

3.6 Well-being

3.6.1 Financial Well-being

Financial well-being (FWB) is an abstract concept being used to explain an individual's or family's financial situation. It was measured using Malaysian Financial Wellbeing Scale a 10-point Likert type question which comprised of 12 items that measure how satisfied an individual is towards his/her FWB. Within these 12 items, respondents were asked about control, attitude, behaviour and confidence in their financial aspects. Cronbach's Alpha reliability for the total of the 12 items was α=0.949, which indicates appropriate instrument internal consistency.

The mean score of the 12 items was 6.73 (Standard Deviation, SD =1.44) that signified respondents were mostly at the average or good FWB. A low SD means less variability while high SD indicates the data were more spread out. Item "How often do you have trouble paying monthly bills?" had the highest mean of 7.82 (SD=1.91), while the lowest was "How worried or concerned are you about your personal finances today?" (mean=5.76, SD=2.05). These findings revealed that respondents rarely had financial problems and were satisfied with their financial situation, but they were still worriedor concerned of their current personal finance. Results for each item is shown in Table 3.6-1.

Table 3.6-1: Mean and Standard Deviation (SD) of respondents' financial well-being

Financial Well-being	n	Mean (SD)
1. How satisfied are you with your present financial situation?	822	6.60 (1.70)
2. How worried or concerned are you about your personal finances today?	823	5.76 (2.05)
3. How well off are you financially?	825	6.75 (1.52)
4. Which of the following best describe your current financial situation?	823	6.93 (1.56)
5. How do you feel about your current financial situation?	822	6.58 (1.55)
6. How sure are you that you will have enough money to provide for a comfortable old age?	822	6.59 (1.69)
7. How often does your last pay run out before the next payday?	822	6.48 (1.97)
8. How often do you have trouble paying monthly bills (electricity, telephone, instalment, credit cards)?	822	7.82 (1.91)
9. How confident are you that you have control over your personal finances?	824	7.11 (1.61)
10. How confident are you that you know how to manage personal finances?	823	7.13 (1.56)
11. How easy would it be for you to get money to pay for a financial emergency that costs RM1,000?	829	6.37 (2.45)
12. How worried or concerned are you about your personal finances in general?	830	6.71 (1.79)

FWB score was computed by summing up the averages score for all 12 items. Higher score indicated better well-being among the respondents. The sum score was then categorized into five groups: 1 being overwhelming financial distress/ lowest FWB (score 1-2); 2 being very high financial distress/ very poor FWB (score 3-4); 3 being average financial distress/ average FWB (score 5-6); 4 being low financial distress/ good FWB (score 7-8); and 5 being extremely low financial distress/ extremely high FWB (score 9-10).

Percentage of the FWB score was presented by age, sex, education attainment and length of service (Figure 3.6-1). Result shows that there is a difference in FWB score between the age groups. Almost half of respondents (42.3%) aged 40 to 49 years had average to overwhelming financial distress compared to only 21.2% among 50 years and above. The percentage was much higher among the youngest age group.

Younger age group who were in the early stage of their career and starting out a family experienced financial distress which may affect productivity. They need to be equipped with resource management skills especially finance. Further research is needed to understand the impact of financial distress on productivity and mental health.

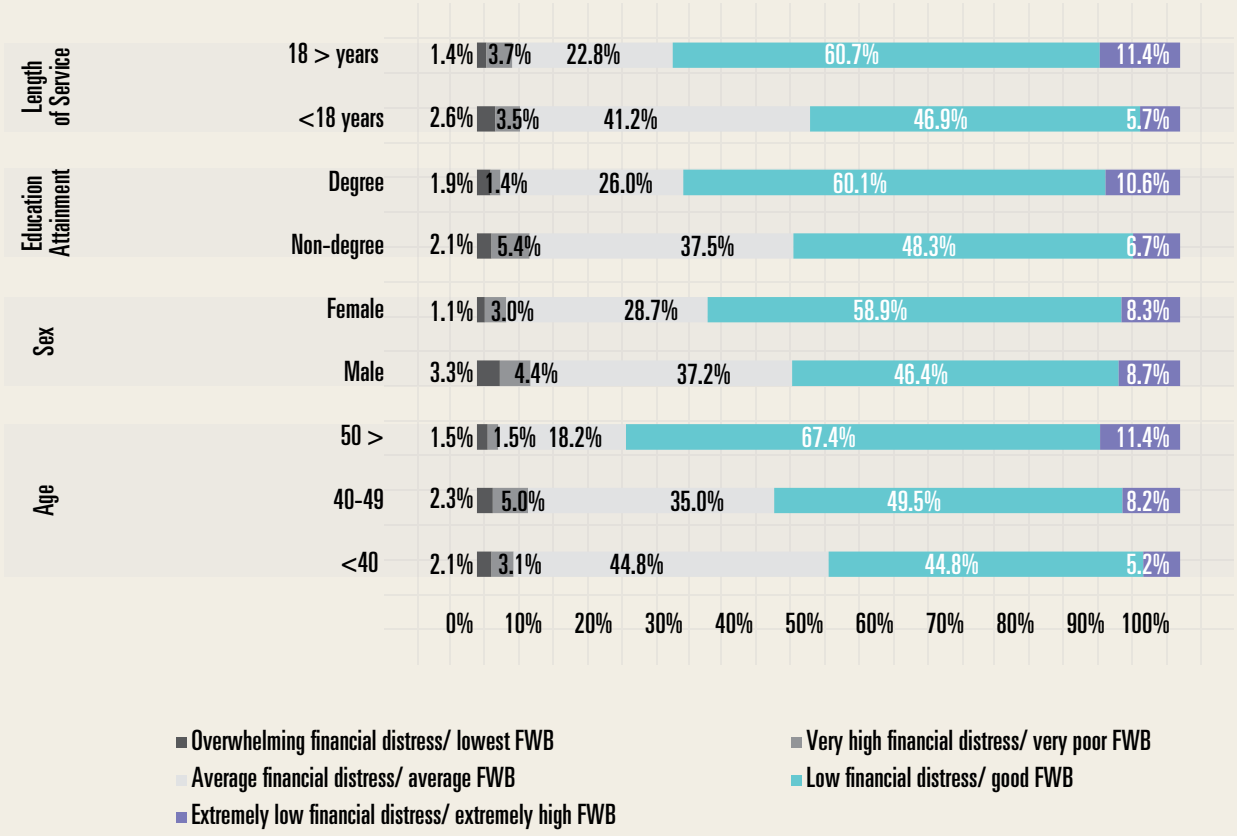


Figure 3.6-1: Percentage of the financial well-being score by age, sex, education attainment and length of service

3.6.2 Life Satisfaction

Life satisfaction was measured using 11 items. The scale reliability (Cronbach's alpha; α) is 0.910. In general, respondents scored high in life satisfaction with an average mean (SD) of 3.46 (0.57). The highest mean was satisfaction on spouse (4.21) and the lowest was on amount of leisure time (3.56). Mean and Standard Deviation of each item is shown in Table 3.6-2.

Table 3.6-2: Mean and Standard Deviation of respondents' life satisfactions

Life Satisfaction	n	Mean (SD)
Your health	839	3.76 (0.75)
Your household income	839	3.64 (0.79)
Residence	838	3.88 (0.78)
Your husband/wife/partner	757	4.21 (0.80)
Your job	836	3.93 (0.74)
Your social life	837	3.84 (0.74)
The amount of leisure time you have	838	3.56 (0.86)
The way you spend your leisure time	833	3.76 (0.78)
Your child(ren)	751	4.17 (0.77)
Environmental safety	836	3.87 (0.77)
Your life in general	840	4.09 (0.67)

Figures 3.6-2 compares the life satisfaction in four distinct sum score categories of 11- 21, 22-32, 33-43 and 44-55. Overall, respondents had good life satisfaction. Comparison within age group indicated that respondents aged 50 years and above had better life satisfaction (60.5%) followed by aged 40 to 49 years (45.6%) and less than 40 years (43.2%). In terms of sex, females (50.7%) had better life satisfaction than males (48.5%). Respondents with diploma, secondary and lower education attainment (54.2%) and more working experience (58.2%) were better than their counterpart. It is generally known that life satisfaction is very much related to level of education. However in this study those with higher education attainment have lower life satisfaction score. This may be due to the affluent lifestyle which is hard to satisfy.

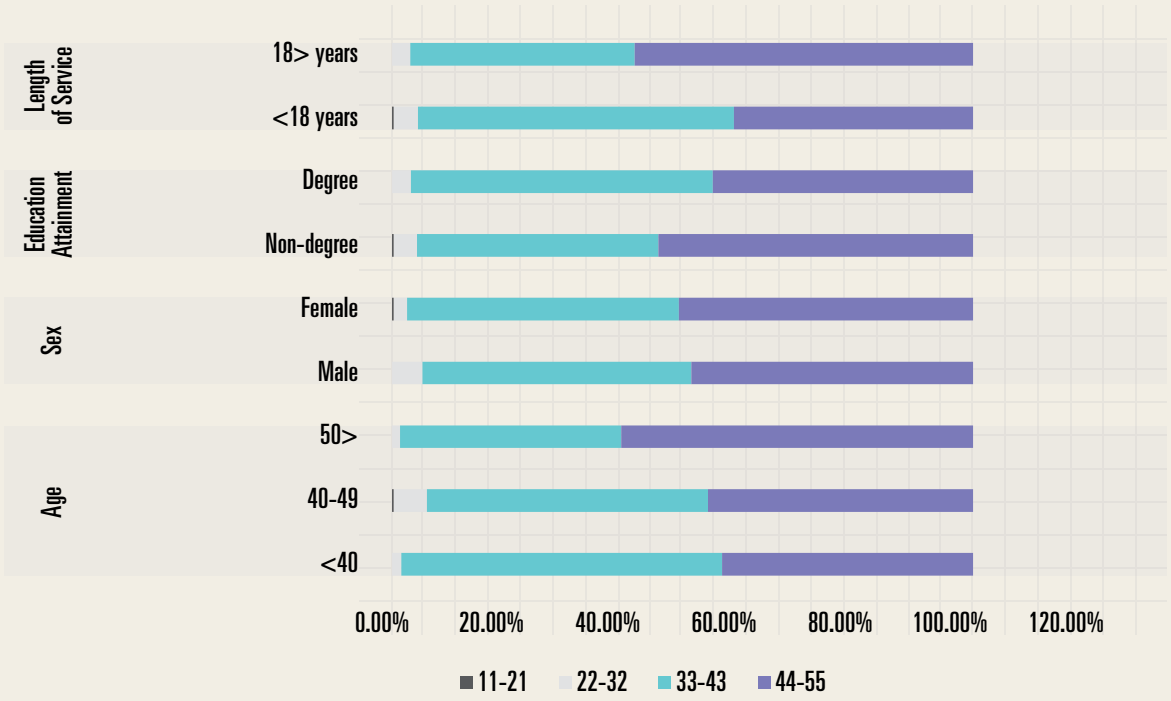
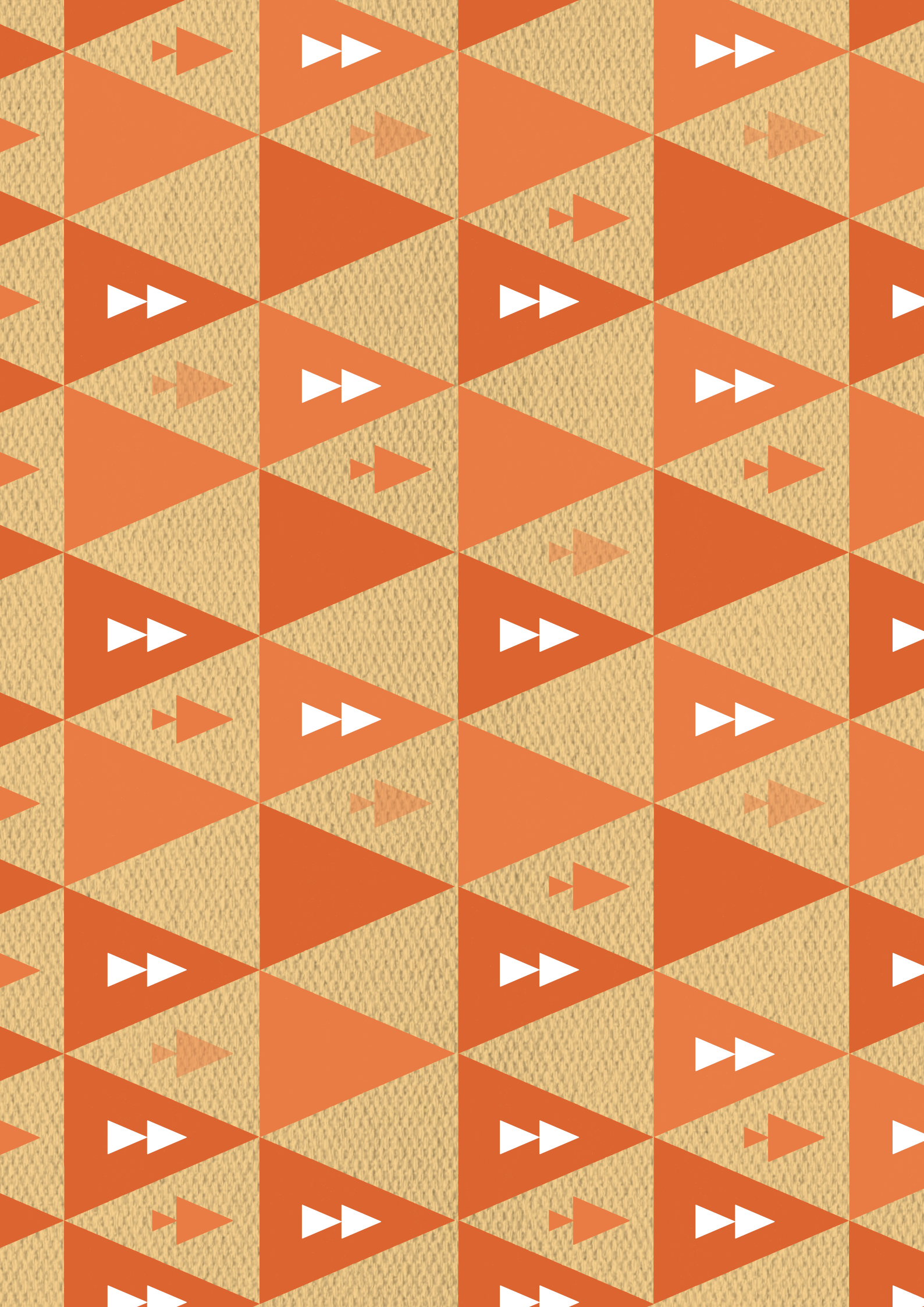


Figure 3.6-2: Percentage of life satisfaction score by sex, education attainment and length of service

Key Findings:

- The mean score of the FWB scale was 6.73 (Standard Deviation, SD =1.44) that signified respondents were mostly at the average or good financial well- being.
- Almost half (42.3%) of the younger respondents (age 40 to 49 years) had average to overwhelming financial distress compared to only 21.2% among 50 years and above.
- Overall, respondents had good life satisfaction with those aged 50 years and above had better life satisfaction (60.5%) compared to younger age group.



chapter four

Findings for retirees

FINDINGS FOR RETIREES

4.1 Profile of Retirees

This chapter describes the profile of retirees in two aspects: Socio-demographic (personal and family) background and economic profile.

4.1.1 Socio-Demographic Profile

4.1.1.1 Personal Characteristics

A total of 747 government retirees living in Klang Valley participated in the study. Slightly more than half of the respondents were male and the rest were female retirees. Figure 4.1-1 shows the general profile of the respondents. Majority of the respondents were married, a small percentage were widowed, divorced or separated (9.0%). About 90% of the respondents were Muslims who were mostly (88%) of Malay ethnicity. Slightly more than half of the respondents had secondary education and about one-quarter had tertiary education.

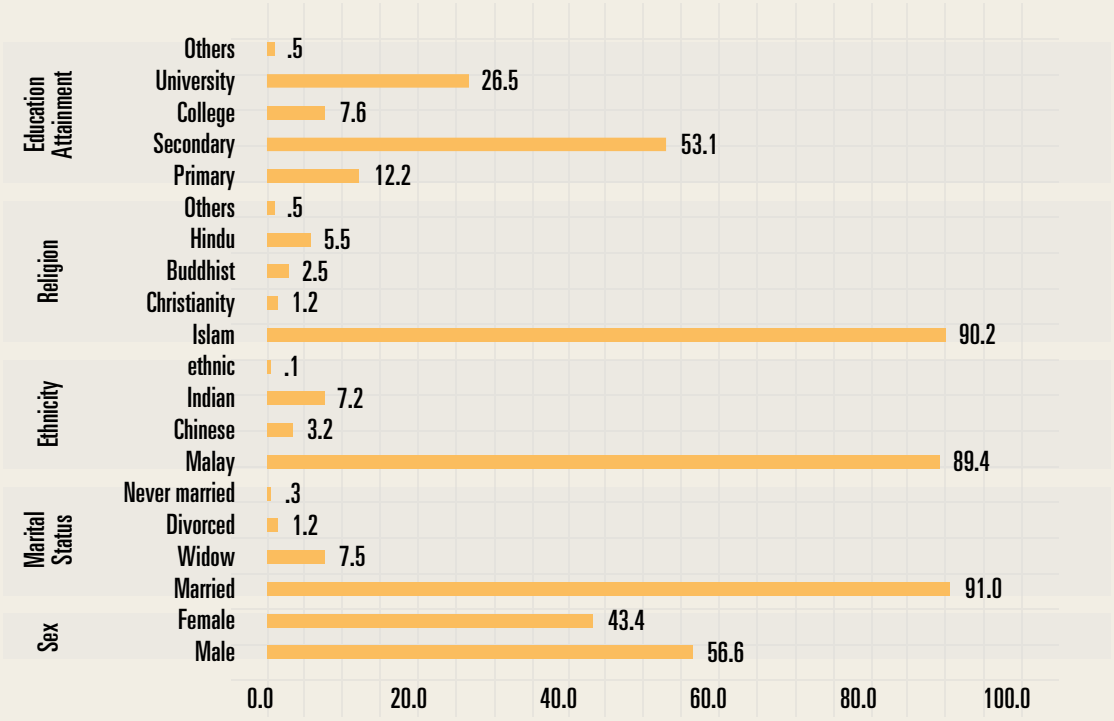


Figure 4.1-1: Profile of respondents (Retirees)

The respondents' ages ranged between 49 to 87 years old with a mean age of 64.8 years old. The mean age of 423 male respondents was 66.9 years old compared to 63.1 years old for their 324 female counterparts. Those with secondary and lower education tended to be older compared to those with tertiary education.

Sex differences in marital status, education attainment and length of retirement are shown in Figure 4.1-2. A higher percentage of female respondents were widowed, divorced or separated compared to that of male respondents. In contrast, a higher percentage of females were more educated than males. There were 17% male respondents with primary education compared to only 6% female respondents. In contrast, there were 57% female retirees with at least a secondary education attainment compared to only 50% among male retirees. Even though traditionally men tended to be more educated than women, this study provided an evidence on women's achievement in education.

In terms of the length of retirement, the trend generally indicated that male respondents had been in retirement for a slightly longer period than female respondents. This is consistent with the fact that male respondents had higher mean age (i.e. older) than female respondents. More than 45% of male respondents compared to 32% of female respondents had retired for at least 11 years. On average respondents in this study had retired for more than nine years with a maximum of 33 years.

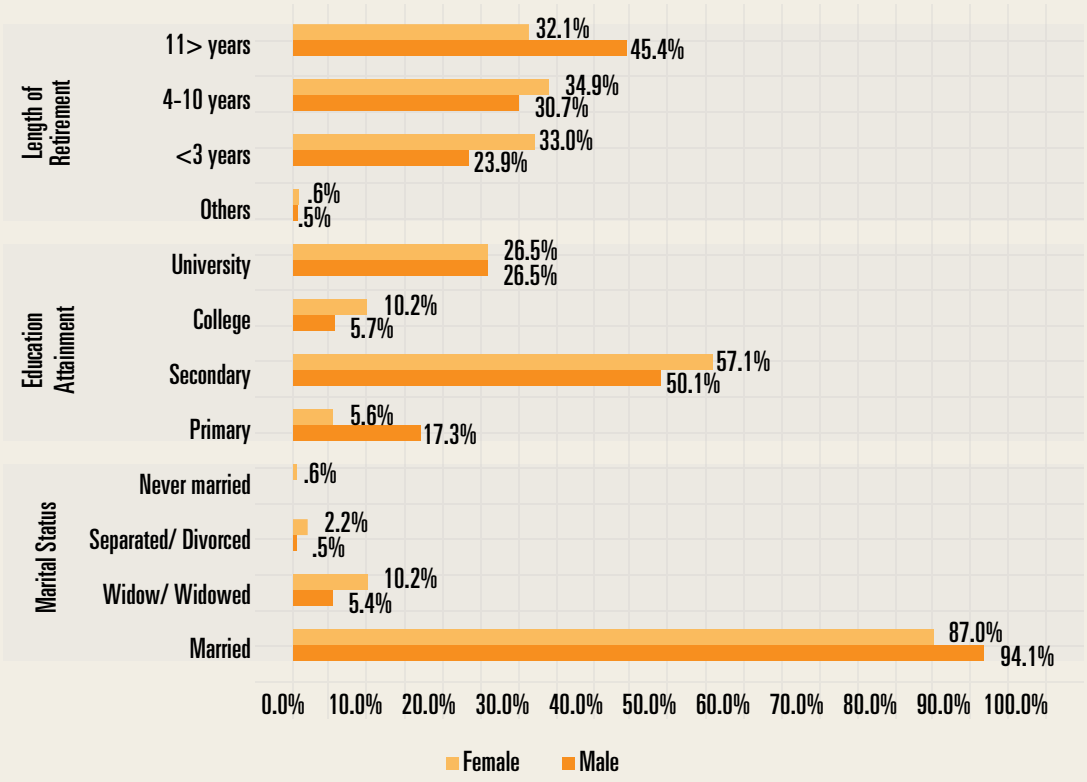


Figure 4.1-2: Personal profile of the respondents by sex

4.1.1.2 Family Background

Majority of the respondents were currently married and 51.5% indicated that their spouses were full time homemakers, 12.6% whose wives were still working and the rest had wives who were retirees as well. About 62.6% of male respondents reported to have spouses who were full time housewives.

All, except 1% of the respondents have between one to 13 children. There were 78.4% respondents who had two to five children. Twelve percent of the respondents had no son and 11% had no daughter. Local cultural practices and expectation insinuates that a son(s) (normally) is a potential source of financial support for elderly parents, while a daughter(s) is a candidate(s) as potential carer(s) in case care is needed. Seventy four percent of respondents indicated that they no longer had children who were still studying or financially dependent on them. Among those 26% with dependent children, 17% reported to have one dependent child while the rest had between two to six dependent children. Sixteen respondents had disabled or special children. One respondent had two disabled children while the others had only one disabled child. In addition to dependent family members, there were respondents 5.8% who had parents living together –i.e. multigenerational family. There were 35 respondents living with one parent while eight respondents had two parents living together. Having dependent child(ren) and parents provided additional financial burden to the retirees especially when the amount of pension received was small.

4.1.1.3 Family Composition

Family structure (e.g. multigenerational versus single generational family) and living arrangement (living alone versus co-residing) provided an indication of potential support available to the older person. The living arrangements among the respondents is shown in Figure 4.1-3. In this study, about 12 individual retirees who reported to live alone while the rest lived with their family members/ relatives/friends/others. Among those who lived with their family members/relatives/friends/others, 89% of the respondents lived with their spouses and 73% of the respondents co-resided with their children. About 21% reported to have had their grandchildren living with them.

In terms of family structure, 2% of the retirees in this study lived alone, 24% living with spouse only and the rest were living in two or three generation households. The highest percentage of those living alone was among those who had retired for more than 11 years. There were 27% of those who had retired for more than 11 years and living in coupled household. The two generation household mainly comprised of parents and children and slightly more than half of the respondents were living in two generation households except for those who had retired for more than 11 years.

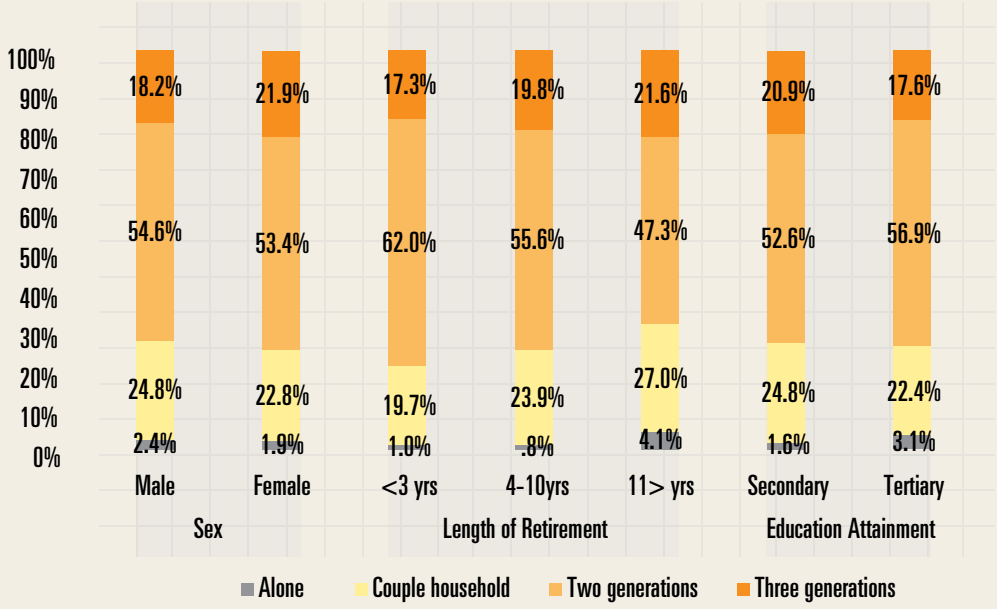


Figure 4.1-3: Living arrangements by selected background

4.1.1.4 Work

Respondents of the study comprised of government retirees of various grades – i.e. ranging from support staff to top managerial positions. More than 450 positions were listed by the respondents. Their last position held at their respective ministries by selected background is shown in Figure 4.1-4. A small percentage of these respondents were in the managerial position and almost equal percentage were in the professional, technical and clerical or support group. Those with tertiary education tended to be in the higher ranking and higher paid positions before retirement which entitled them to a much higher pension compared to those with secondary or lower education. In contrast, those with secondary or lower education retired in a lower position thus had lower income and eventually received a small amount of pension. A slightly higher percentage of those recently retired were in managerial and professional positions compared to those who had retired for more than five years. As such, the government's burden in pension pay out was expected to be heavier as the newer wave of retirees were better educated, thus entitled for higher pensions.

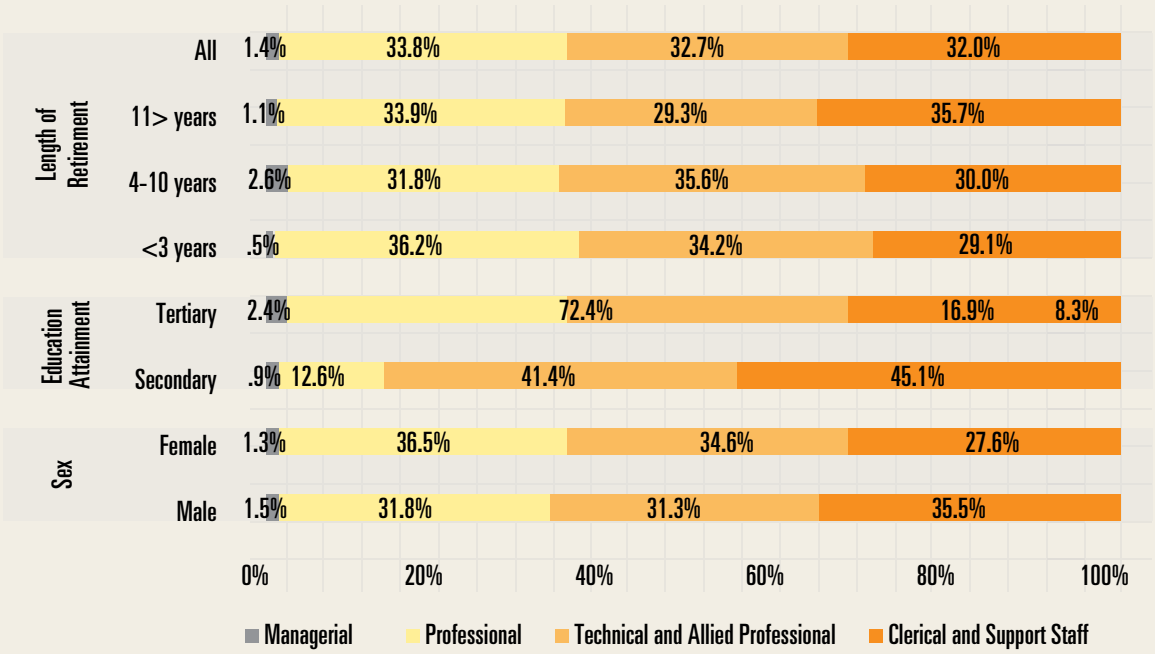


Figure 4.1-4: Percentage of work categories prior to retirement by selected background

The respondents' length of retirement ranged from one to 33 years. The mean length of retirement was 9.6 years and the median were eight years. Reasons for retirement is as shown in Figure 4.1-5. The majority of respondents were retired due to the mandatory retirement i.e. upon reaching retirement age. But, for female respondents, a slightly higher percentage retired after opting for early (i.e. optional) retirement. A very small percentage (less than 2%) of the respondents retired to join private sector.

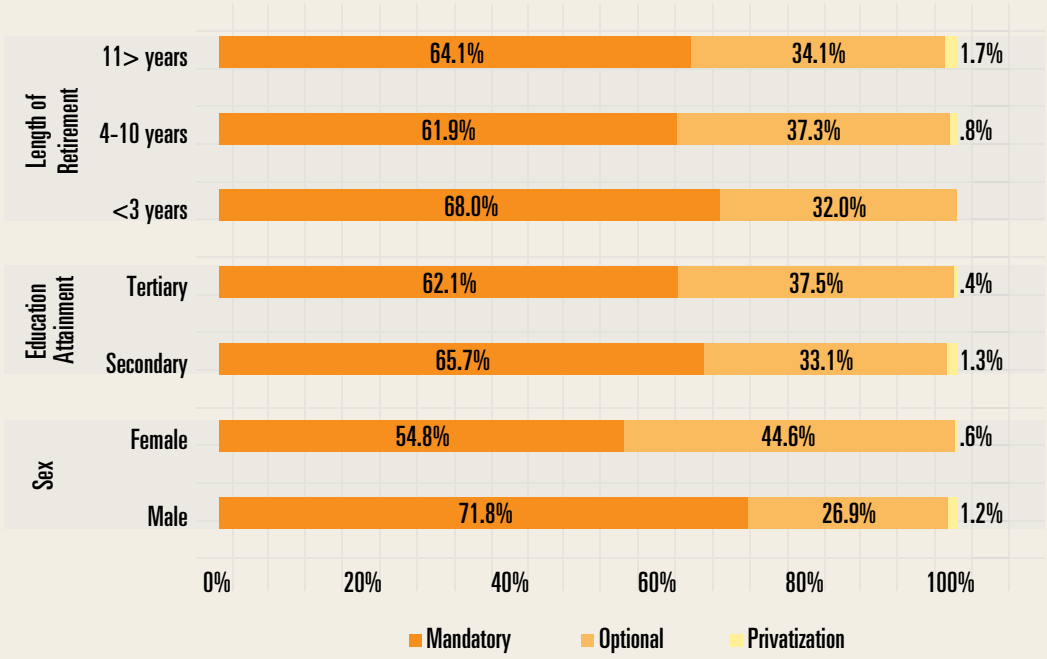


Figure 4.1-5: Reasons for retirement

Figure 4.1-6 shows the percentage of respondents who had attended retirement planning courses/ pre-retirement trainings by sex, education attainment and length of retirement. About 45% of the respondents indicated they had attended pre-retirement trainings. The highest percentage was among those who retired less than three years and the lowest percentage was among those who retired more than 11 years ago. A higher percentage of male than female respondents and those with secondary education or lower had attended pre-retirement training. Pre-retirement training, as its name indicated can invoke awareness and help prepare future retirees financially, physically, socially as well as emotionally for retirement. As such, all workers should be given pre-retirement training to help them undergo a smooth transition from work life to retirement life.

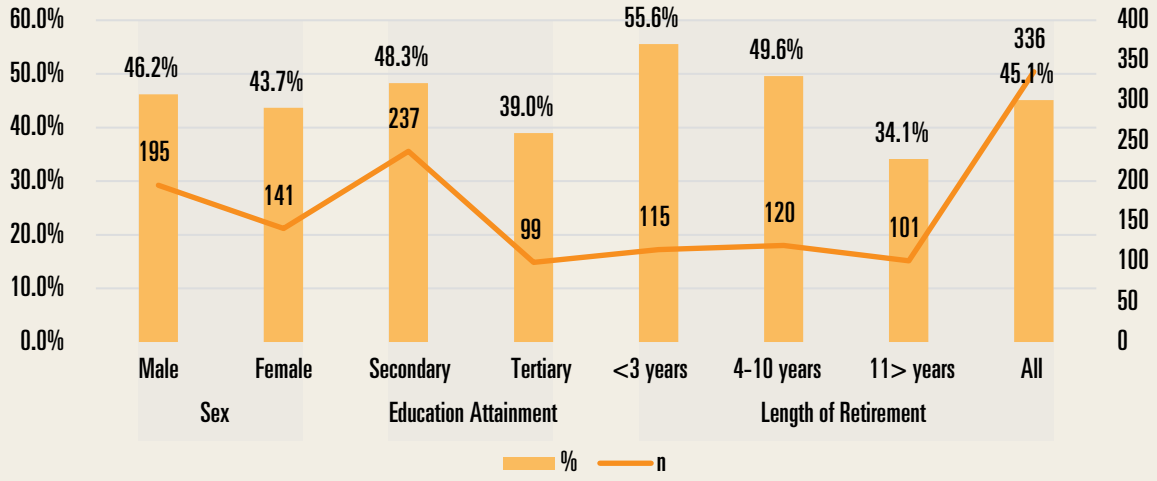


Figure 4.1-6: Percentage of respondents who attended retirement planning courses by selected background

4.1.2 Economic Profile

The economic profile of the respondents analysed both resources and use of resources in retirement. Resources examined here consisted of sources of income in retirement including pensions and assets. Use of resources were represented by their monthly expenses and their financial obligations such as debts.

4.1.2.1 Economic Resources

Pensions

There were 23 persons who did not reveal the amount of pension they received. The rest (i.e. 724 respondents), however, reported to have received pensions between RM150 and RM10,000 per month. The mean amount of pension received by the respondents was RM2,174.18 with a median of RM1,900.00 per month. Female respondents had a slightly higher mean pension (RM2,195.56) compared to male respondents (RM2,157.70). Those with tertiary education received 2.3 times higher amount of pension with an average of RM3,488.26 compared to only RM1,509.80 among secondary or lower educated respondents. However, the current trend, as explained above indicated that the proportion of those with higher education among the government employees are increasing. So, in future, the mean amount of pension received by retirees in Malaysia is expected to continue to increase. Similar (retrospective) trend was reflected when the amount of pension received were analysed against respondent's length of retirement. The study indicated that the mean pension received by those who retired within last three years was the highest (RM2,776.07) compared to those who retired more than 11 years ago (RM1,824.76). The percentage of respondents by selected background and pension categories is shown in Figure 4.1-7.

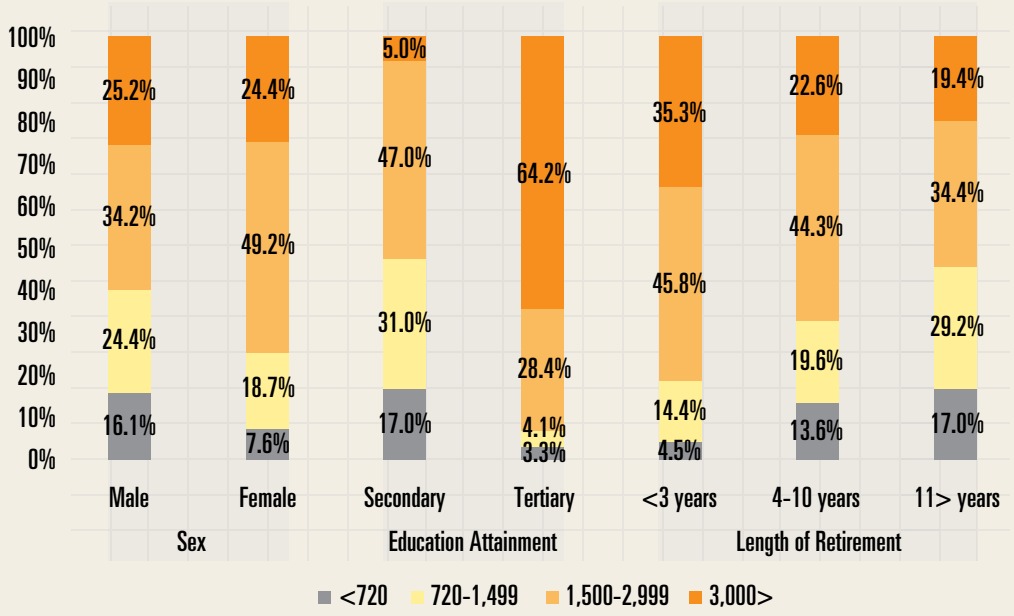


Figure 4.1-7: Pension categories by selected background

Other sources of income

The percentage who received income from other sources is shown in Table 4.1-1. However, the top three sources of income other than pension received by the respondents were salary, children remittance and rental. The percentage of respondents who continued working for pay after retirement was small, thus, it was also reflected in a small percentage of those who received income from wage or salary. There were only 53 respondents who reported income from wage/salary and they comprised of 11% of males, 3.7% females and 11% of those with tertiary education.

Table 4.1-1 clearly shows that remittance from children is ranked as the second highest source of income for respondents after pension. About half of the respondents received money from children and a slightly higher percentage of female than male reported to receive money from children. A similar trend was observed among those with different education attainments – i.e. a higher percentage of those with lower education attainment reported to receive remittance from child(ren). About 15% respondents received income from rental. A slightly higher percentage of those newly retired received income from rental compared to those who have retired for more than 11 years. Other sources reported were interests or dividends and business profits which were reported by less than 10% of the respondents.

Table 4.1-1: Percentage of respondents receiving income from various sources

Sources of income	Sex		Education attainment		Length of retirement		
	Male	Female	Secondary	Tertiary	< 3years	4-10 years	11> years
Salary/ Wages	11.1%	3.7%	6.3%	11.0%	7.2%	9.1%	7.4%
Business profit	6.6%	5.6%	6.7%	5.1%	5.8%	6.6%	6.1%
Agricultural activities	2.1%	.9%	2.2%	0.4%	1.9%	0.8%	2.0%
Rental	15.8%	14.5%	15.7%	14.5%	16.8%	15.6%	13.9%
Interest and dividend	8.7%	12.3%	9.8%	11.4%	11.5%	9.9%	9.8%
Pension	96.9%	98.5%	98.0%	96.9%	98.1%	96.7%	98.0%
SOCSO	0.7%	.3%	0.6%	0.4%	0.0%	0.8%	0.7%
Annuity	0.2%	0.0%	0.0%	0.4%	0.0%	0.4%	0.0%
Welfare/ Allowance	1.7%	0.3%	1.2%	0.8%	1.0%	0.8%	1.4%
Children's Remittance	46.8%	50.5%	54.5%	36.6%	47.1%	47.9%	49.7%
Other sources	7.3%	6.5%	7.1%	6.7%	3.8%	9.5%	7.1%

Table 4.1-2 shows the mean income from various sources received by the respondents. Income received from work tended to be different when the groups were compared. Female respondents reported receiving a higher mean income compared to male respondents. Those with tertiary education also received a much higher mean income compared to those with secondary education. The female respondents received higher mean income from their children compared to male respondents. Total income reported and pension received by the respondents is shown in Figure 4.1-8. Other sources of income did help supplement the pension received by the respondents. There were about 30% retirees in this study who relied fully on pension to support their livelihood and the percentage was much higher among those with tertiary education whereby 40% had pension as source of income.

Table 4.1-2: Mean income received by respondents from various sources

Sources of income		Sex		Education attainment		Length of retirement			Mean (all)
		Male	Female	Secondary	Tertiary	<3 years	4-10 years	11> years	
Salary/ Wages	RM	4,015.58	5,630.00	3,364.48	5,475.00	4,900.00	5,693.16	2,719.05	4,320.19
	n	43	10	29	24	13	19	21	53
Business profit	RM	3,153.85	1,852.94	1,806.45	4,791.67	2,680.00	2,631.25	2,623.53	2,639.53
	n	26	17	31	12	10	16	17	43
Agricultural activities	RM	750.00	750.00	525.00	3,000.00	700.00	350.00	908.33	750.00
	n	9	2	10	1	3	2	6	11
Rental	RM	1,056.04	857.55	899.48	1,129.73	921.43	857.37	1,127.56	974.21
	n	67	47	77	37	35	38	41	114
Interest and dividend	RM	2,894.86	2,909.62	1,392.30	5,382.86	3,603.17	2,156.82	2,887.14	2,902.24
	n	37	37	46	28	24	22	28	74
Pension/ Derivative pension	RM	2,234.72	2,195.56	1,509.80	3,618.89	2,776.07	2,221.62	1,824.76	2,217.68
	n	409	315	481	243	201	235	288	724
SOCSO	RM	593.33	150.00	583.33	180.00		540.00	425.00	482.50
	n	3	1	3	1		2	2	4
Annuity	RM	1,000.00			1,000.00		1,000.00		1,000.00
	n	1			1		1		1
Welfare/ Allowance	RM	878.57	200.00	508.33	1,650.00	975.00	1,100.00	550.00	793.75
	n	7	1	6	2	2	2	4	8
Children's Remittance	RM	587.68	689.50	559.62	852.81	520.73	609.82	726.55	633.54
	n	194	159	264	89	96	112	145	353
Other sources	RM	1,220.94	1,404.70	1,029.83	1,830.59	2,370.14	970.17	1,304.55	1,291.62
	n	32	20	35	17	7	23	22	52

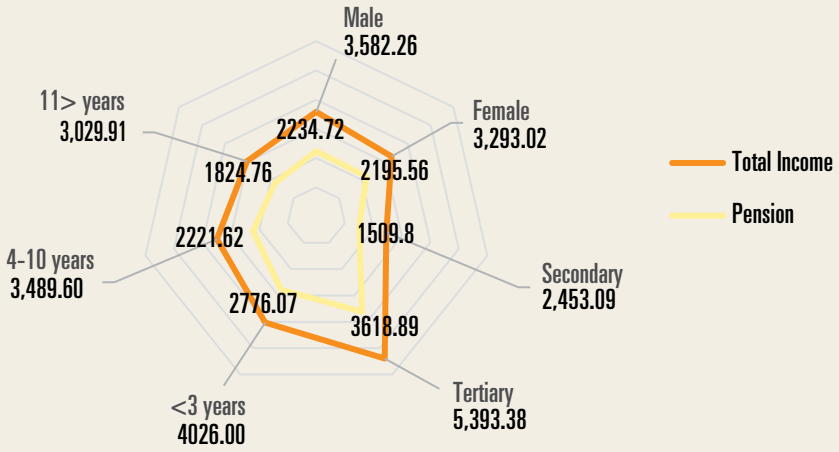


Figure 4.1-8: Mean income of respondents by selected background

Assets

Assets accumulated during a younger age can provide financial security in old age. More than 90% of male respondents with tertiary education and those who retired more than 11 years owned at least a house. The lowest percentage of home owners was among female respondents, 85.8% compared to 93.4% among male respondents. Savings was owned by more than half of the respondents with the highest percentage was among those who recently retired. There were 31.2% male respondents who owned pieces of land compared to only 22.8% female respondents. The percentage of respondents who owned other types of assets is also shown in Table 4.1-3 and the mean value of assets owned by the respondents is shown in Table 4.1-4.

Table 4.1-3: Percentage of respondents who owned different types of assets

Types of assets	Sex		Education attainment		Length of retirement		
	Male	Female	Secondary	Tertiary	< 3years	4-10 years	11> years
Savings	56.3%	56.8%	56.9%	55.7%	62.5%	58.8%	50.3%
Land	31.2%	22.8%	27.2%	28.2%	26.4%	30.0%	26.4%
Own house	93.4%	85.8%	89.8%	90.6%	88.9%	88.9%	91.9%
Rented house/ Shop lots	15.8%	16.0%	15.0%	17.6%	19.7%	15.2%	13.9%
Bon/Share/ Unit trust	7.1%	12.0%	6.3%	14.9%	11.5%	8.2%	8.4%
Gold bar/ Jewellery	2.6%	24.4%	11.8%	12.5%	15.4%	11.9%	9.8%
Farm or agricultural equipment	1.9%	0.3%	1.0%	1.6%	2.4%	0.4%	1.0%
Live stock	1.2%	0.6%	1.2%	0.4%	0.5%	1.6%	0.7%
Other types of assets	1.2%	1.2%	1.0%	1.6%	0.0%	0.8%	2.4%

Table 4.1-4: Mean value of assets by selected background

Types of assets		Sex		Education attainment		Length of retirement			All
		Male	Female	Secondary	Tertiary	<3 years	4-10 years	11> years	
Savings	RM	96,941.04	114,095.48	47,340.29	239,522.22	100,084.73	111,175.56	100,625.14	103,983.39
	n	224	156	268	112	118	127	135	380
Land	RM	296,640.63	258,876.92	27,2131.78	307,687.50	190,037.74	251,029.41	384,097.22	283,922.28
	n	128	65	129	64	53	68	72	193
Own house	RM	819,784.35	610,940.07	663,729.93	874,598.21	556,905.56	537,613.21	640,746.25	584,668.06
	n	393	267	436	224	180	212	267	659
Rented house/ Shop lots	RM	292,589.54	446,877.55	249,618.06	534,727.25	397,820.51	316,958.33	355,487.78	357,762.92
	n	67	49	72	44	39	36	41	116
Bon/Share/ Unit trust	RM	59,203.85	88,646.15	35,452.00	109,548.15	60,390.00	66,429.41	100,466.67	73,925.00
	n	26	26	25	27	20	17	15	52
Gold bar/ Jewellery	RM	18,333.33	30,800.00	14,888.89	60,680.00	23,166.67	19,440.00	47,500.00	29,379.75
	n	9.00	70	54	25	30	25	24	79
Farm or agricultural equipment	RM	154,750.00	1,000,000.00	444,000.00	4,500.00	424,600.00	4,000.00	37,000.00	248,666.67
	n	8.00	1	5	4	5	1	3	9
Live stock	RM	70,420.00	5,025.00	57,025.00	20,000.00	300,000.00	5,537.50	20,000.00	51,735.71
	n	5.00	2	6	1	1	4	2	7
Other types of assets	RM	182,625.00	265,000.00	258,875.00	112,500.00	0	177,750.00	226,250.00	210,083.33
	n	4.00	2	4	2	0	2	4	6

4.1.2.2 Use of Economic Resources

Monthly expenses

Respondents were asked to estimate their monthly expenses on selected items and the mean expenses reported is shown in Figure 4.1-9. Mean monthly expenses on self and spousal care reported by 667 respondents (89% of total respondents) was RM1,001.64 (the highest of all expenses). Thirty nine percent respondents reported expenditure on gifting with monthly mean of RM140.20, followed expenses on health care (i.e. reported by 37% respondents) with the mean of RM322.57 per month. There were 22% respondents who reported to incur expenses on children with an average of RM744.82 per month.

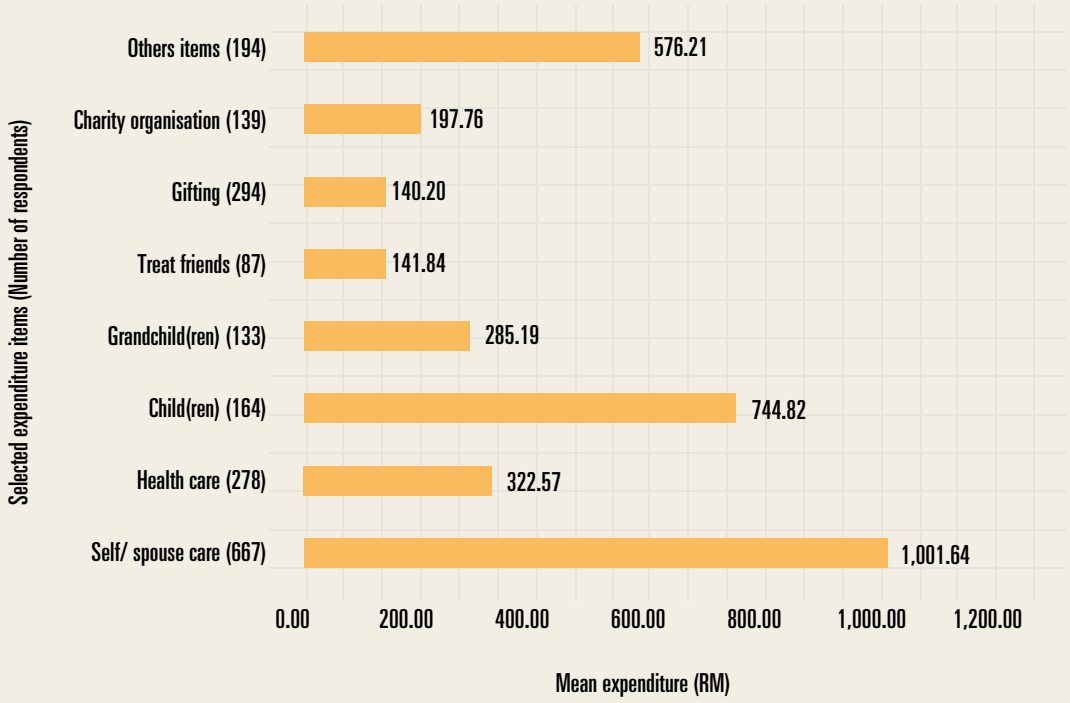


Figure 4.1-9: Mean expenditure on selected items

Debt payment

A small percentage of respondent in this study had outstanding debts and the highest percentage (25.5%) was among those who recently retired, followed by those with tertiary education (21.6%) (Figure 4.1-10). Comparing the mean amount of outstanding loans, those with tertiary education had the highest mean, while those with secondary education reported the lowest mean amount of debts. This may be accounted to the eligibility for higher amount of loan/mortgage among those with tertiary education because they had higher salary when they were still working compared to their lower educated counterparts, hence, a bigger amount of outstanding debts in retirement.

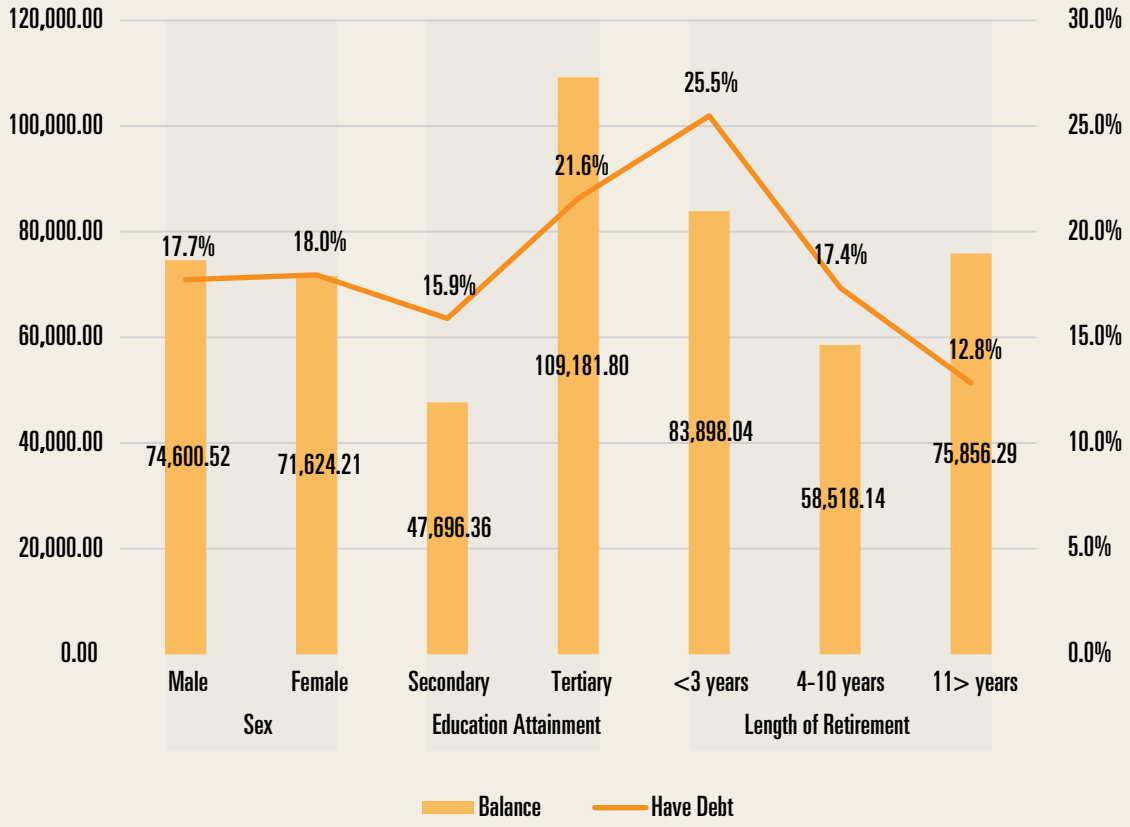


Figure 4.1-10: Percentage of respondents with outstanding debts and mean debt balance

Other commitments

Ownership of insurance is shown in Figure 4.1-11. Those who retired for more than 11 years had the lowest insurance ownership compared to the newly retired respondents in almost all insurance ownership. The age limit as well as the necessity to purchase insurance tended to decline as people grow older and this was especially reflected in education insurance. Health insurance was owned by 23.1% of those who retired for less than three years and 21.6% among those with tertiary education. A similar trend was also observed for life insurance. Access to medical services that came together with pension package may be the contributing factor for the low percentage of respondents with insurance coverage. Furthermore as they grow older, respondents may no longer have financial responsibilities towards their children which allows them to acquire insurance protection.

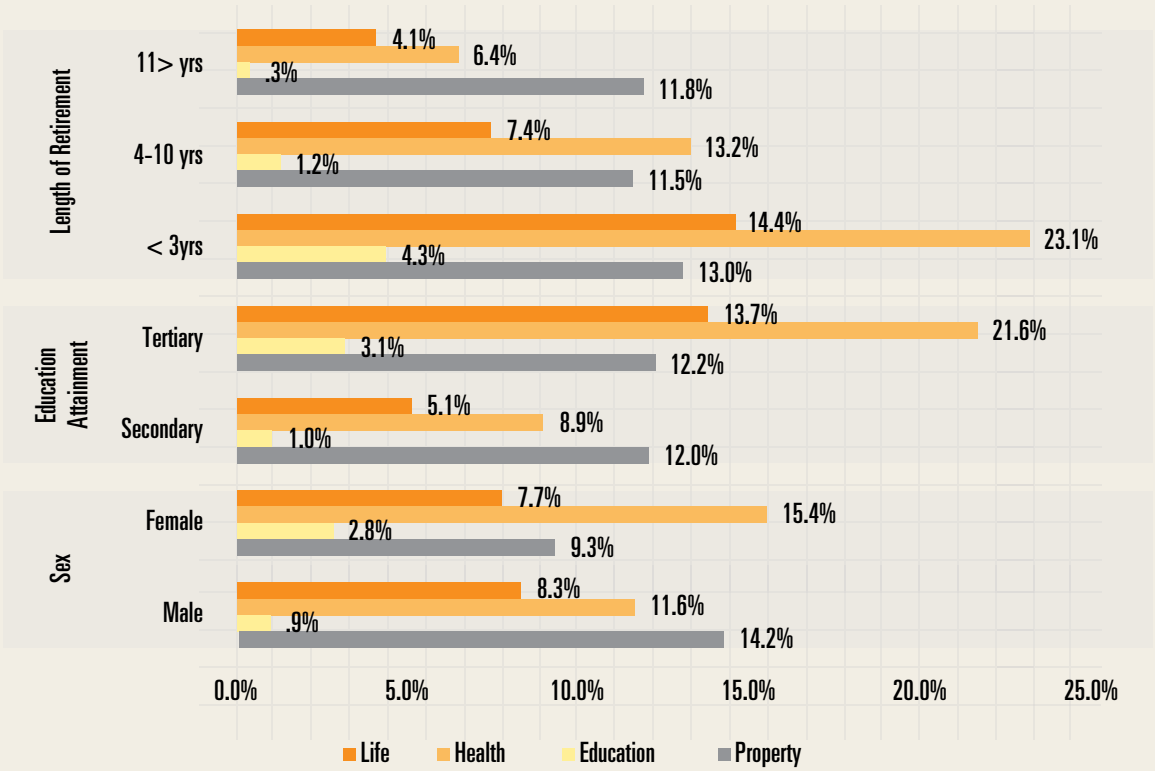


Figure 4.1-11: Percentage of respondents with types of insurance by selected background

Key Findings:

- The respondents' mean age was 64.8 years old.
- More than 85% of the respondents were married.
- A higher percentage of female respondents were widowed, divorced or separated compared to that of male respondents.
- Majority of the respondents were living in two generations household.
- Almost equal percentage were in the professional, technical and clerical or support group.
- The mean length of retirement was 9.6 years and the median was eight years with majority retired due to the mandatory retirement.
- The mean amount of pension received by the respondents was RM2,174.18 with a median of RM1,900.00 per month with the range of RM150 and RM10,000 per month.
- About half of the respondents received money from children and a slightly higher percentage of female than male reported to receive money from children.
- A small percentage of respondent (17.8%) had outstanding debts and the highest percentage was among those who recently retired.
- Health insurance was owned by 23.1% of those who retired for less than three years.

4.2 Aspirations and Attitudes towards Life in Retirement

Old age transitions encompass many shifts in life including physical appearance, the 'empty nest' syndrome, moving into retirement, economic changes and so on. Adjusting to such transitions are not necessarily easier that some retirees eased smoothly into retirement and feeling happier while others struggled with their new life and had anxiety and debilitating feeling of loss.

4.2.1 Aspirations and Attitudes

This section presents the findings of attitudes and worries of retirement. Figure 4.2-1 shows the attitudes towards retirement of the respondents. Generally, respondents reported positive attitude towards retirement. All the statements showed more than 40% strongly agreed with the statements. The three negative statements, "retirement is closing up someone's opportunity and talent to continue to contribute", "retirement is a form of dismissal from one's job due to old age" and "after retirement, I have difficulties to getting sympathy and support from other people" showed strong disagreement with the statements from the respondents.

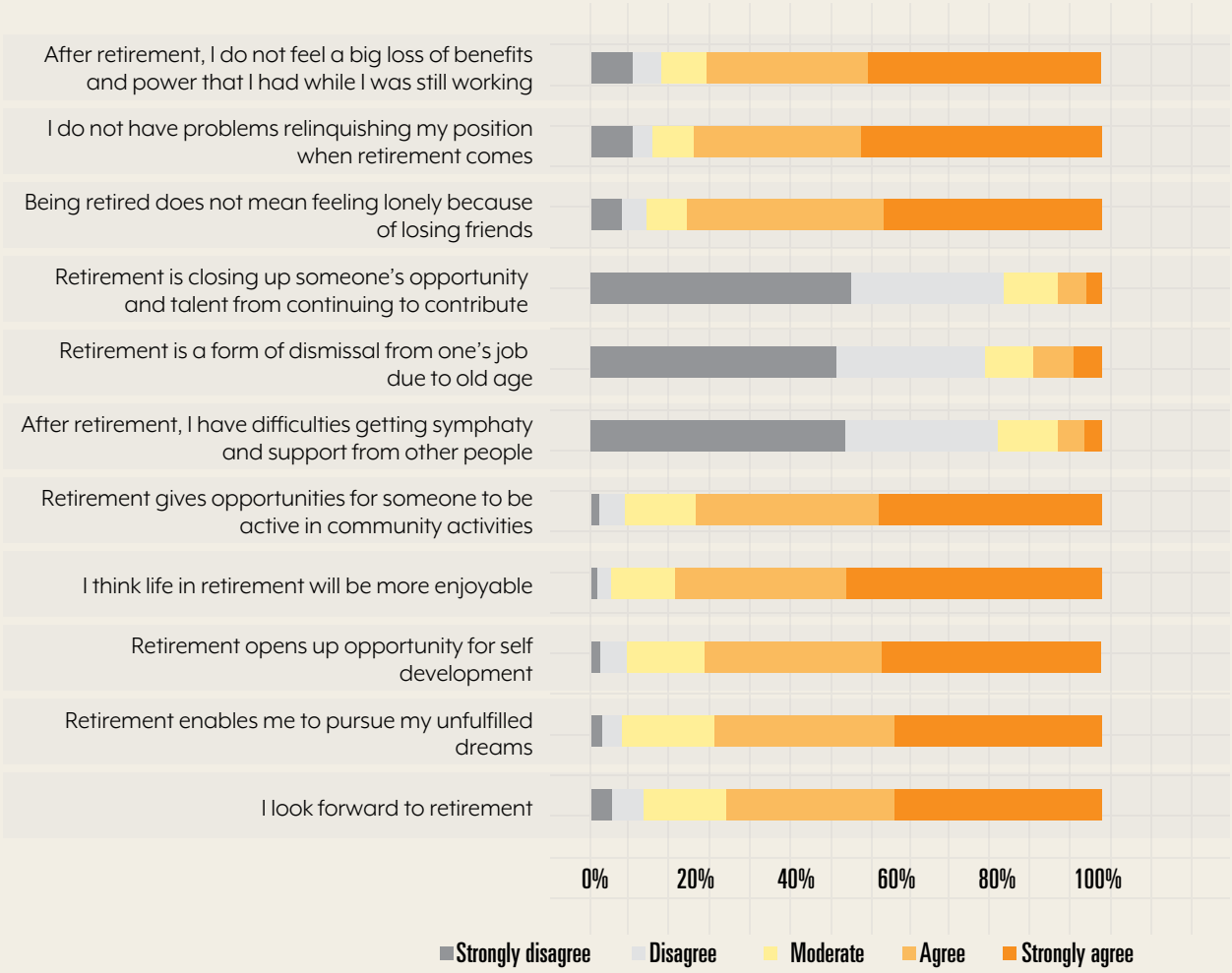


Figure 4.2-1: Attitudes towards retirement

Further analysis was conducted on attitudes towards retirement using composite score of the scale. The possible (composite) score of the attitude scale is between 11 and 55 which was divided into negative and positive attitudes towards retirement. Generally, the retirees had positive attitute towards retirement. Not much difference in attitudes was noted between sex, length of retirement, education attainment and retirement options (Figure 4.2-2). Differences in attitudes were noted among respondents who were married, widowed or divorced. Separated/divorced respondents recorded more negative attitudes towards retirement than either married or widowed respondents. Interesting to note that, retirement option influenced attitudes toward retirement. Those who retired due to the privatization of companies reported to have more positive attitudes towards retirement, but the number was small. Those who were still working also recorded a more positive attitude towards retirement. In general, they have positive attitudes towards retirement which will facilitate their retirement adjustment.

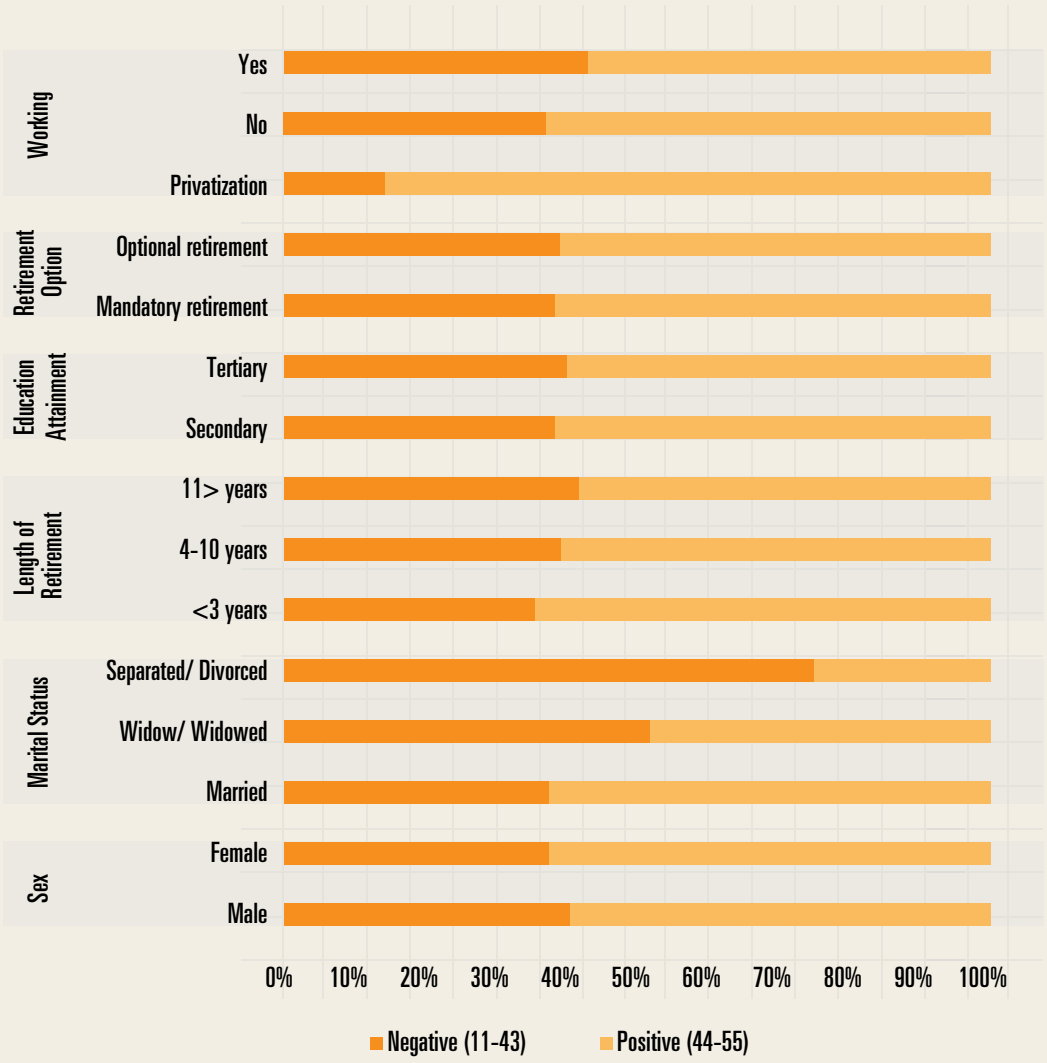


Figure 4.2-2: Attitudes towards retirement by sex, marital status, length of retirement, education attainment, retirement option and work

4.2.2 Preparation on First Retirement

Respondents were asked to make an assessment on to what extent they were prepared for retirement on ten aspects using the scale of 1 being not prepared at all to 5 being fully prepared. The general response is shown in Figure 4.2-3. There was a small percentage of respondents who indicated they were not financially prepared for retirement. More than half of the respondents were fully prepared in the aspect of relationship with children and spouse. Majority of the respondents were prepared in almost all aspects and the mean response for each aspect by group is shown in Table 4.2-1. In general, almost all respondents indicated they were prepared for retirement especially in the aspect of relationship. The highest mean was for relationship with children and spouse and the lowest mean was for finance. In general, female respondents tended to perceive they were more prepared compared to male respondents in almost all aspects. Meanwhile those with secondary education had higher mean preparation pertaining to relationships compared to those with tertiary education. The tertiary educated group was more prepared in finance, health, spirituality, home to live in and mentally compared to the secondary education group. Those in the secondary educated group were prepared more in relationship with siblings, other family members and the community.

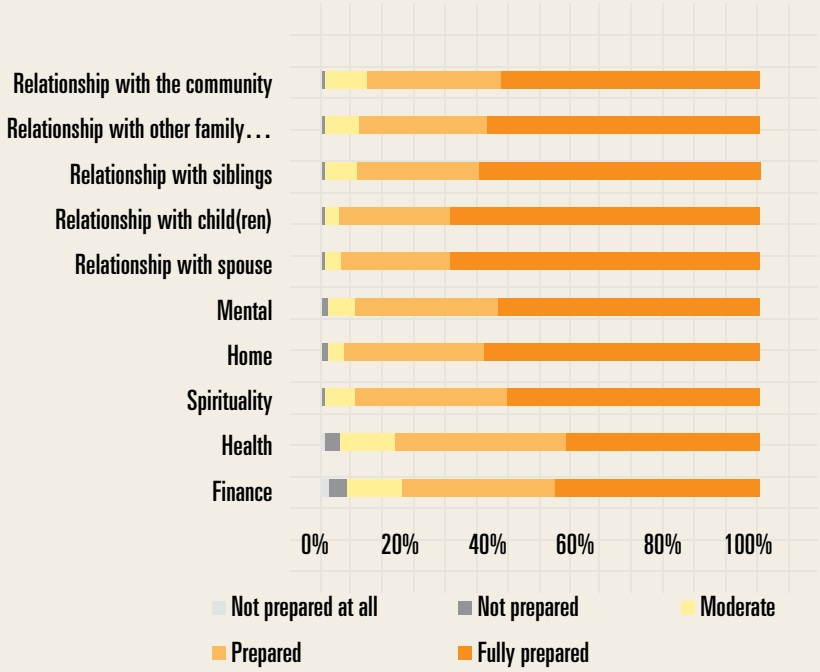


Figure 4.2-3: Respondents' level of preparation for retirement

Table 4.2-1: Mean score for retirement preparedness by sex, length of retirement and education attainment

Aspects of retirement preparedness	Sex		Length of retirement			Education attainment		All
	Male	Female	<3 years	4-10 years	11> years	Secondary	Tertiary	
Finance	4.12	4.33	4.36	4.19	4.12	4.11	4.41	4.21
Health	4.22	4.24	4.22	4.31	4.17	4.17	4.34	4.23
Spirituality	4.45	4.55	4.49	4.55	4.46	4.49	4.51	4.49
Home	4.51	4.64	4.55	4.62	4.54	4.54	4.62	4.57
Mental	4.47	4.56	4.52	4.57	4.45	4.48	4.57	4.51
Relationship with spouse	4.61	4.70	4.69	4.72	4.56	4.64	4.66	4.65
Relationship with child(ren)	4.62	4.72	4.68	4.71	4.60	4.65	4.68	4.66
Relationship with siblings	4.49	4.63	4.58	4.60	4.49	4.56	4.52	4.55
Relationship with other family members	4.46	4.60	4.56	4.56	4.47	4.54	4.49	4.52
Relationship with the community	4.46	4.51	4.48	4.51	4.46	4.49	4.46	4.48

A four items self-esteem scale was used to examine self-esteem among the retirees. The result shows that regardless of their background, majority agree or strongly agree with all the statements (Figure 4.2-4). The self-esteem score was computed across all items resulting in minimum score of 4 and maximum of 20. Figure 4.2-5 shows the mean score by selected background. In general, respondents scored high in the self-esteem scale – i.e. about 18 points out of a maximum score of 20 points. However, respondents with the longest length of retirement scored the least at 17.83 (Figure 4.2- 5). Detailed examination of the self-esteem scale indicated that majority (at least 57%) of respondents clustered in the highest scale, namely "strongly agree" in all items within the scale (Figure 4.2-5).

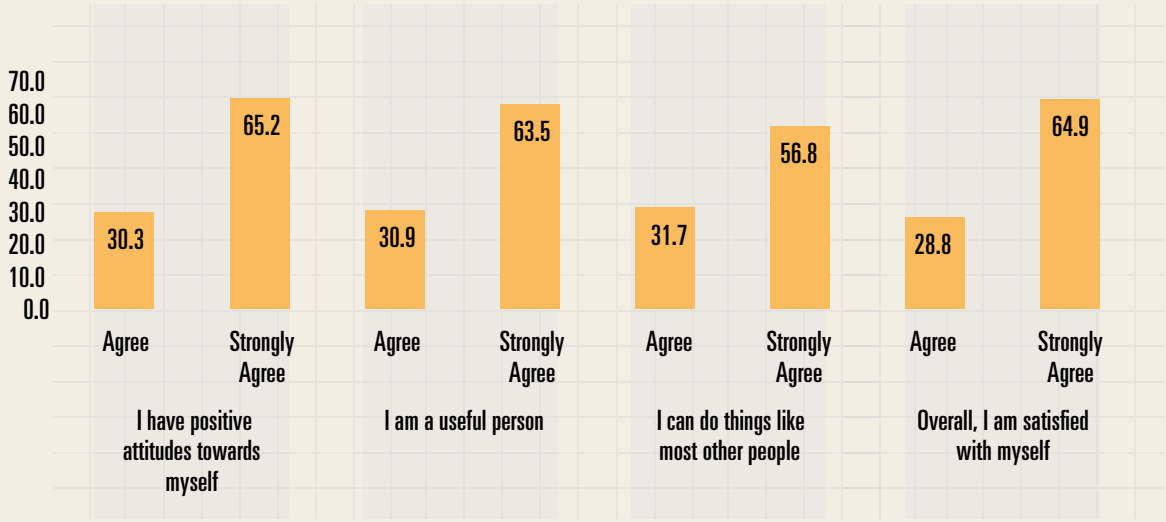


Figure 4.2-4: Percentage of respondents' agreement by self-esteem scale item

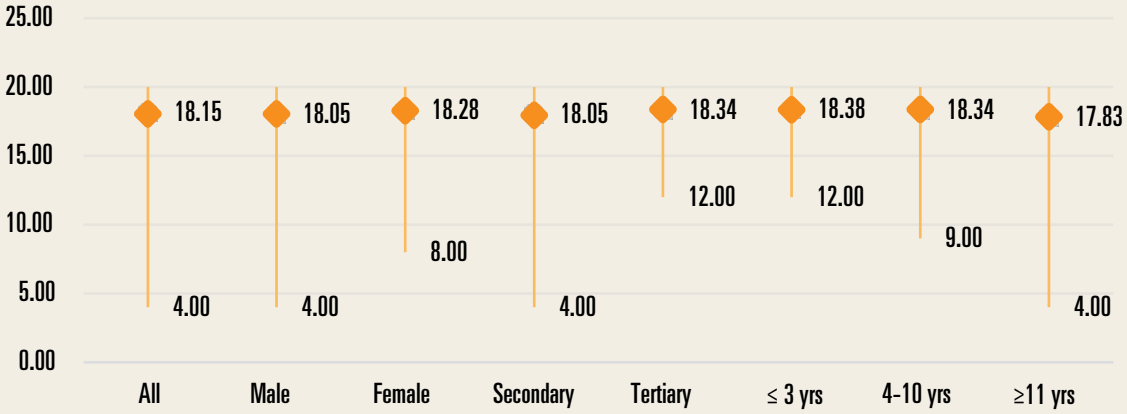


Figure 4.2-5: Mean score of self-esteem for all samples and by sex, education attainment and length of retirement

Religiosity

In general, the respondents, regardless of their background, also scored high in religiosity scale – i.e. about 19 points out of a maximum score of 20 points. However, respondents with the longest length of retirement scored the least at 18.85 (Figure 4.2-6). Detailed examination of the religiosity scale indicated that majority (about 80%) of respondents clustered in the highest scale, namely "strongly agree" in all items within the scale (Figure 4.2-7). The same pattern was observed when such score was examined by sex, education attainment and length of retirement (Table 4.2-2).

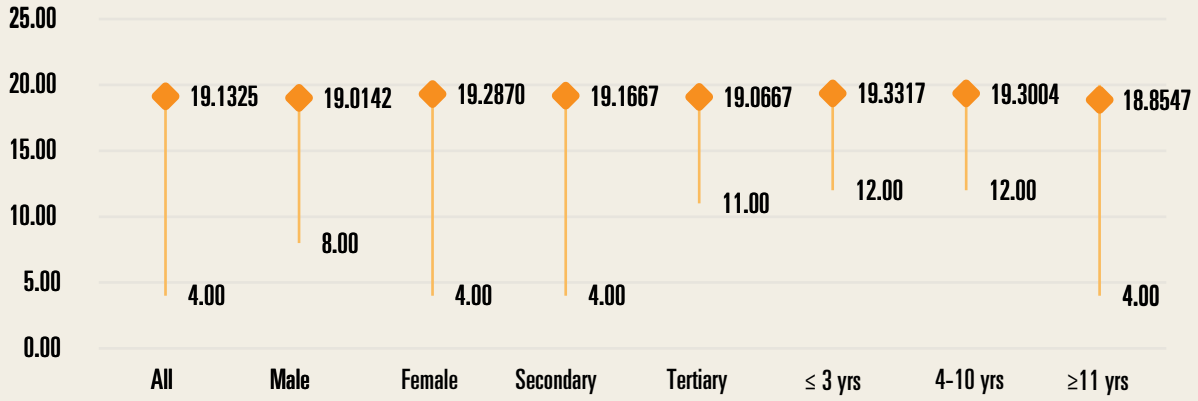


Figure 4.2-6: Mean score of religiosity for all samples and by sex, education attainment and length of retirement

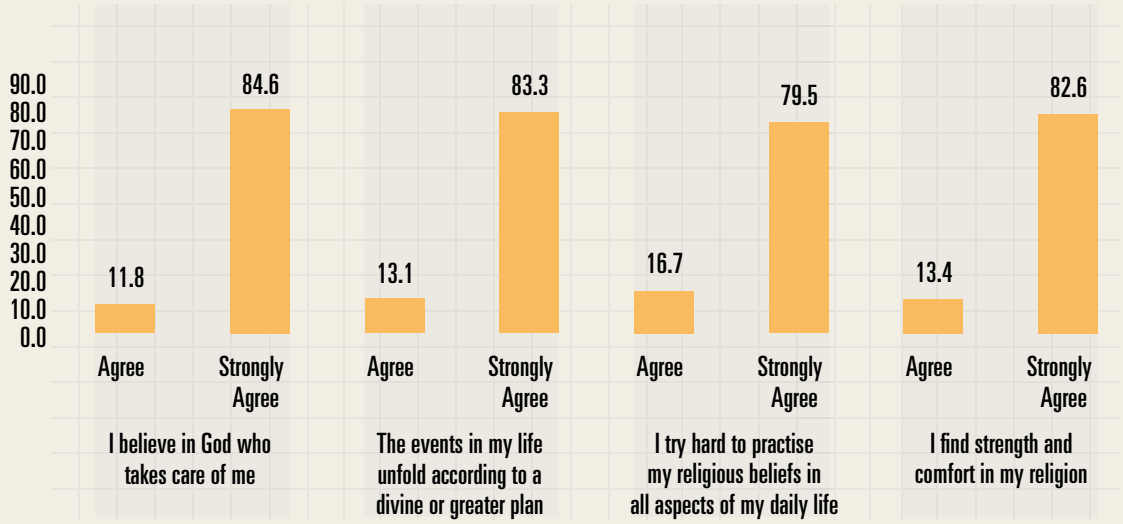


Figure 4.2-7: Respondents' score on religiosity scale

Table 4.2-2: Respondents' score on religiosity scale by sex, education attainment and length of retirement

Statements on religiosity		Sex				Education attainment				Length of retirement					
		Male		Female		Secondary		Tertiary		<3 years		4-10 years		11> years	
I believe in God who takes care of me	Agree	52	12.3%	36	11.1%	48	9.8%	40	15.7%	25	12.0%	20	8.2%	43	14.5%
	Strongly agree	350	82.7%	282	87.0%	424	86.2%	208	81.6%	181	87.0%	216	88.9%	235	79.4%
The events in my life unfold according to a divine or greater plan	Agree	56	13.2%	42	13.0%	53	10.8%	45	17.6%	28	13.5%	25	10.3%	45	15.2%
	Strongly agree	346	81.8%	276	85.2%	418	85.0%	204	80.0%	176	84.6%	212	87.2%	234	79.1%
I try hard to practise my religious beliefs in all aspects of my daily life	Agree	71	16.8%	54	16.7%	71	14.4%	54	21.2%	31	14.9%	42	17.3%	52	17.6%
	Strongly agree	329	77.8%	265	81.8%	399	81.1%	195	76.5%	174	83.7%	194	79.8%	226	76.4%
I find strength and comfort in my religion	Agree	53	12.5%	47	14.5%	54	11.0%	46	18.0%	31	14.9%	27	11.1%	42	14.2%
	Strongly agree	345	81.6%	272	84.0%	415	84.3%	202	79.2%	174	83.7%	208	85.6%	235	79.4%

4.2.3 Retirement Adjustment

Thirteen statements were listed to grasp retirement adjustment among the retirees. They were asked to indicate the relevant number to reflect their adjustment to each of the statements read to them (1 being strongly disagree to 5 being strongly agree). Table 4.2-3 shows the percentage of respondents who agreed (score 4 and 5) to each of the statement by different groups (sex, length of retirement and education attainment). The table clearly shows that almost all respondents agreed that they were well adjusted to the change from working life to retirement life, enjoyed being able to spend more time with their spouse/ partner and majority also indicated they enjoyed being retired. A slightly lower percentage agreed that retirement was better than expected. The data also shows that a slightly lower percentage of male respondents enjoyed being able to spend time with their partners compared to female respondents.

Three statements were asked regarding adjustment related to work and finance. Since all respondents received pension, less than one-quarter had real concerns about their financial situation. The highest percentage was among those with secondary education who received a much lower pension compared to the tertiary educated group. Looking at the percentage of those who missed the enjoyment that work gave them, those with secondary education, retired less than three years and males tended to agree more with the statement. It may be difficult for male respondents to adjust to retirement due to either unpreparedness or the reversal role they had to undergo upon retirement. A similar trend can be observed with the statement 'miss the working routine that work gave them.' There were 43% male respondents who agreed with this statement as compared to only 30% female respondents.

The respondents had no problems with losing power and respect since there were less than 10% who agreed with statement that people do not respect them as much now that they were retired. The pension they received was much lesser than their last drawn salary, thus, about half of the respondents especially the males had to adjust to a big drop in income upon retirement. This was not the concern of those with tertiary education since they may be getting a much higher pension compared to secondary educated respondents or they may have sufficient resources accumulated throughout their working life. Despite being retired from full time work, the respondents felt that they were busy in retirement especially among those who had recently retired and those with tertiary education. Since they adjusted well, they are expected to have a rewarding life in retirement.

Table 4.2-3: Retirement adjustment

Statements on retirement adjustment	Sex		Length of retirement			Education attainment	
	Male	Female	<3 years	4-10 years	11> years	Secondary	Tertiary
I am well adjusted to the changes	91.9%	96.6%	95.7%	95.5%	91.6%	93.1%	95.7%
I enjoy being retired	88.2%	91.0%	90.4%	89.7%	88.5%	88.4%	91.3%
Retirement has been better than I expected	75.4%	84.0%	82.7%	80.2%	75.7%	79.1%	79.1%
I enjoy being able to spend more time with my spouse/ partner	90.4%	94.3%	95.1%	92.5%	89.5%	92.3%	91.6%
I have real concerns about my financial situation	22.1%	21.7%	19.2%	24.9%	21.4%	25.2%	15.5%
I miss the enjoyment that work gave me	47.2%	39.2%	48.1%	41.7%	42.2%	48.2%	35.0%
I miss the working routine that work gave me	42.9%	30.0%	40.6%	36.3%	35.8%	41.8%	28.5%
People don't respect me as much now that I am retired	9.5%	4.6%	4.8%	7.9%	8.8%	8.1%	5.9%
I have had to adjust to a big drop in my income	50.2%	37.0%	41.5%	45.9%	45.4%	49.1%	35.6%
I miss being part of the action	43.9%	34.4%	43.5%	40.2%	36.8%	43.8%	32.0%
Retirement has not lived up to my expectations	23.2%	13.6%	22.1%	16.6%	18.9%	21.4%	14.6%
I am busy	41.0%	44.1%	47.6%	39.7%	40.9%	39.8%	47.2%
I wish I had started to plan for retirement earlier	31.8%	29.0%	37.5%	31.0%	25.4%	33.3%	25.3%

4.2.4 Life in Retirement

Seventeen original statements were developed to measure life in retirement. The 17 statements comprised of daily routines, changes in roles and power in retirement, retirement goals, family relationships and social networkings, involvement in the community, pattern of food intake, exercise, medical check-ups, spending pattern, debt burden, savings habits, suitability of current house, mobility, knowledge on facilities and services for older persons and time utilization. The responses to each question indicated ranking of ideal practice for the question. For example, Question 1- How is your daily routine now? Response 1 being "I do not have daily routine", 2 being "I go through life without any plans", 3 being "I have routine for specific activities" and 4 being "I have a clear routine of my life". Response 1 being non-ideal practice and response 4 being most ideal practice or the best practice. Response 4 for all response statements showed the best practice. This scale noted a Cronbach's alpha of 0.764 (Table 4.2-4).

Table 4.2-4: Statements about life in retirement

Questions about life in retirement	Ideal practice			
	1	2	3	4
How is your daily life routine now?	7.2%	10.7%	35.7%	46.4%
How do you deal with changes in power during retirement?	2.0%	6.2%	21.8%	70.0%
How did you deal with changes in your roles upon retirement?	1.7%	2.4%	6.8%	89.0%
Do you have retirement goals?	0.4%	24.9%	31.4%	43.3%
How is your family relationship?	0.1%	2.4%	17.3%	80.2%
How is your involvement in the community?	8.8%	48.9%	12.2%	30.0%
How is your social network in the community?	3.2%	13.2%	39.7%	43.9%
What is the pattern of your food intake?	6.0%	25.3%	19.4%	49.2%
Do you exercise?	14.2%	4.4%	53.8%	27.5%
Do you do medical check-up?	2.0%	10.3%	15.4%	72.2%
How is your spending pattern?	0.4%	3.4%	45.8%	50.4%
How is your debt burden?	0.9%	1.5%	21.5%	76.1%
What was your savings habit for retirement?	4.6%	5.5%	38.9%	51.0%
Is your current house suitable for old age?	5.0%	3.5%	41.3%	50.2%
How mobile are you?	17.6%	3.9%	8.2%	70.3%
To what extent is your knowledge on facilities and services for older persons?	6.7%	3.4%	62.1%	27.8%
How do you use your time?	5.6%	15.4%	19.9%	59.1%

Approximately 70% reported that they were not affected by loss of power during retirement, 89% was certain about their role in retirement, 80% reported having close family relationships, 72% noted going for regular medical check-ups, 76% reported they were debt free, 70% reported they were mobile and able to move from one place to another for external chores or dealings and close to 60% reported using their spare time to do meaningful activities.

About 50% reported their housing met the different levels of dependency needed for old age, 51% mentioned they saved regularly for their retirement, 50.4% mentioned their income exceeded their expenses and they could save regularly. Only two statements showed poor practices where 17.6% indicated they were depended on others for external chores and 14.2% reported they never exercised. Interestingly 53% of the respondents reported they exercised at their own convenience. Close to 46% of the respondents reported that their income was just enough to cover expenses. Approximately 41% renovated their present houses to meet their needs in old age. In terms of involvement in the community, 49% reported that they were involved in the community when they had free time. This means that the respondents were hardly involved in the community where they live. This was reflected in the 30% who mentioned that they contributed effort or money in all levels of local community activities.

Further analysis of life in retirement are presented in Figures 4.2-8 to 4.2-12. In the analysis, only response 4 was used. Sex differences in ranking was noted. A higher percentage of male respondents were certain of their role upon retirement compared to female respondents (Figure 4.2-8). Retired male respondents tend to create new friendships to expand their social network, always consumed healthy food and took balanced diet, exercised consistently and went for regular medical checked up as advised. On the other hand, a higher percentage of female respondents compared to male reported in making sure family relationships are close, contributed effort and money in all local community activities, income exceeded expenses and could save regularly, free of debts and made sure they saved regularly for retirement before they retired. Male respondents seem to be involved with activities related to personal interests, while female respondents were involved in activities both for personal interests and also as contribution to community activities.

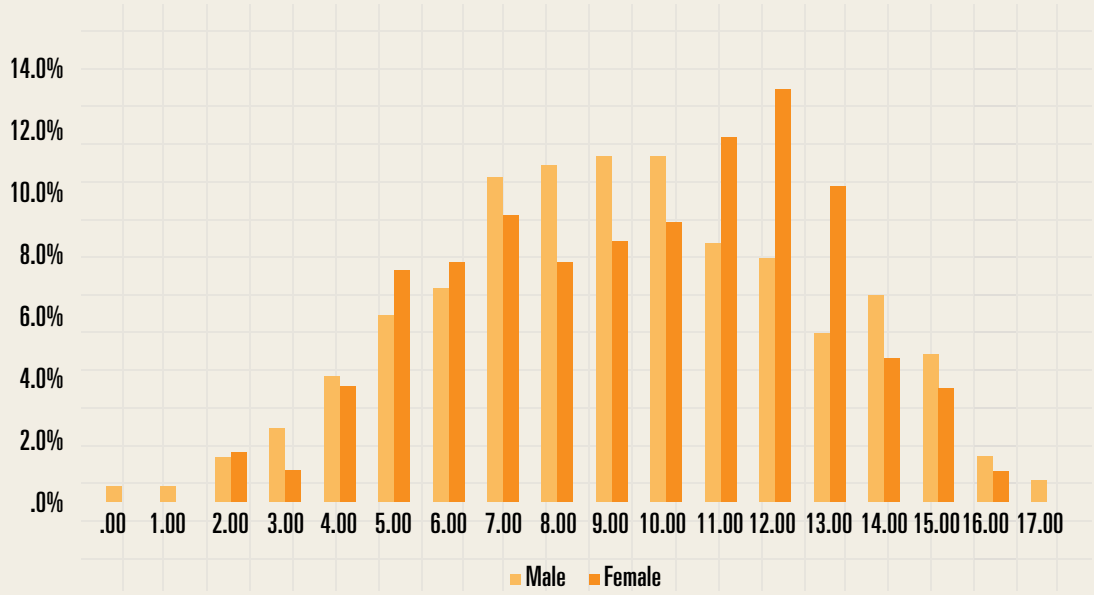


Figure 4.2-8: Ranking of ideal practices by sex

Looking at ideal practices by length of retirement (Figure 4.2-9), retirees who had retired less than three years, reported a higher percentage on family relationships, income higher than expenses and saving habits. Those who had retired between four to ten years years indicated higher responses to contribute effort and money to community activities; consumed healthy food and balanced diet; went for regular check-ups and housing condition met their needs. For long term retirees (11 years and above), exercised regularly and free from debts were the highest recorded ideal practice.

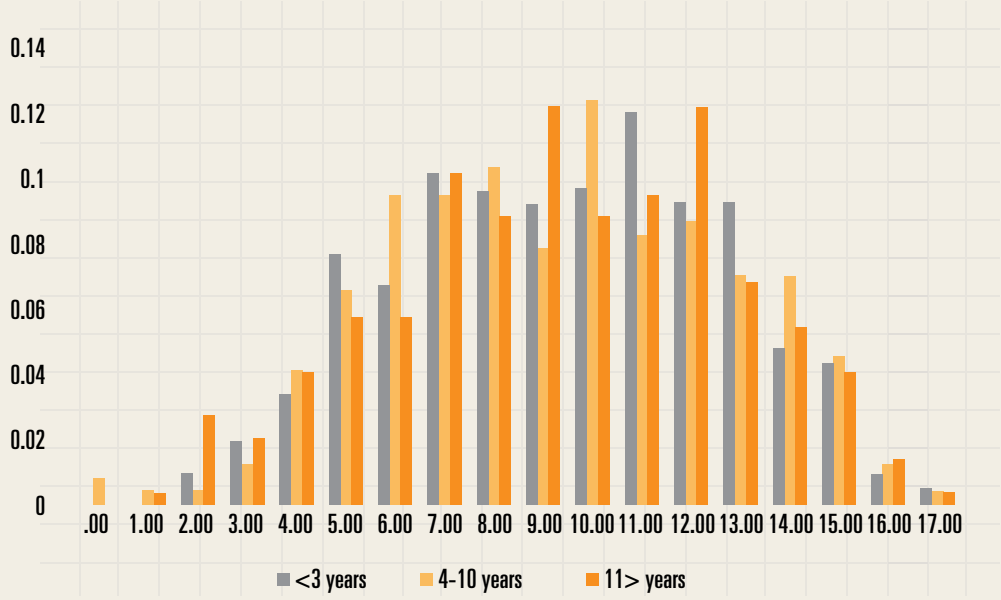


Figure 4.2-9: Ranking of ideal practices by length of retirement

The pattern of responses to ideal practice in life in retirement seemed to differ by work status as shown in Figure 4.2-10. Retirees who worked in retirement, showed a big gap in responses Q3, Q4, Q5, Q6, Q7 and Q11. Question 3 related to dealing with changes in role, goal in retirement, family relationships, involvement in community activities, social networking and medical check-ups. For retirees who did not work in retirement, higher responses were noted for Q10, Q12, Q13, Q14, Q15 and Q16. These questions relate to medical check-ups, debts, saving for retirement, housing environment, mobility and knowledge on facilities and services for older persons. From the responses to life in retirement, it can be concluded that retirees who worked in retirement were more outer directed, while retirees who did not work were more inner directed. The respondents reflected their life situations and needs. A composite score was created for the life in retirement and the score ranged from 17 to 68 points.

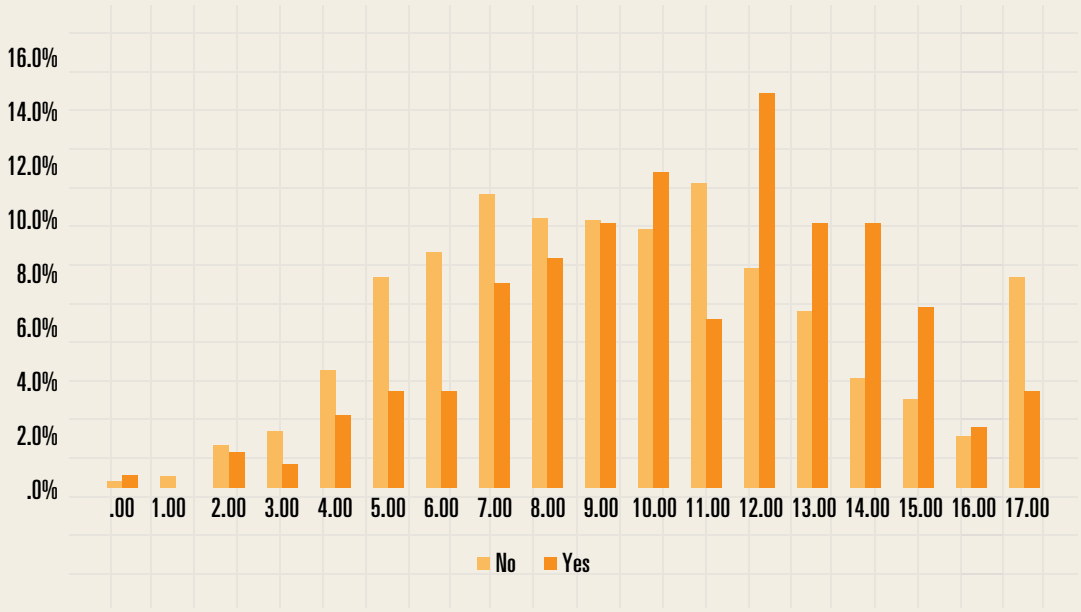


Figure 4.2-10: Ranking of ideal practices by work status in retirement

Figure 4.2-11 summarises the score of life in retirement by sex, marital status, work status and education attainment. Results indicated that slightly more female respondents scored ideal practices for life in retirement compared to male respondents. In addition, more married respondents compared to widowed or separated respondents indicated ideal life practices of life in retirement. Interestingly, all of the respondents who never married reported ideal practices in retirement.

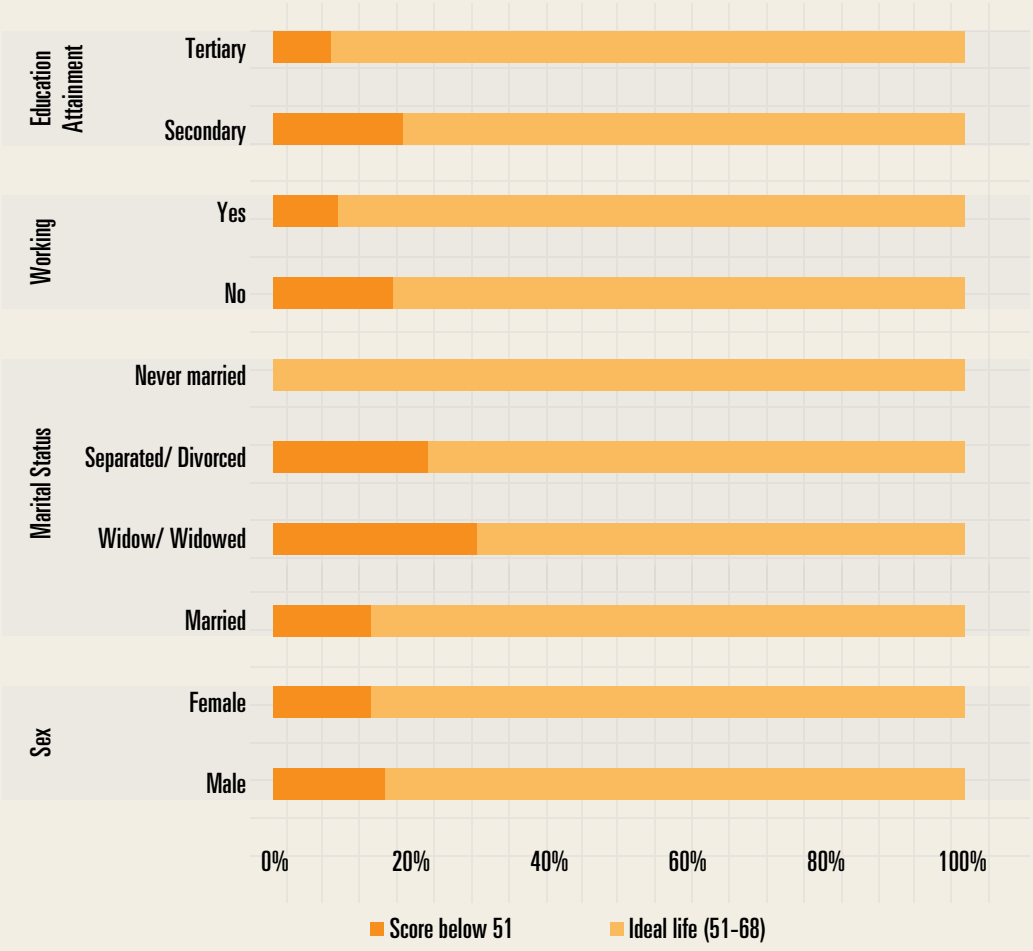


Figure 4.2-11: Score of life in retirement by sex, marital status, work status, and education attainment

As shown in Figure 4.2-12, respondents who lived alone and in couple household reported a similar level of ideal practices in life. A higher percentage of three generation households recorded less ideal life practices. In relation to perceived health, respondents who noted fair and poor health recorded a lower level of ideal life practices. Similarly, respondents with longer length in retirement showed a higher percentage of less ideal practices of life in retirement.

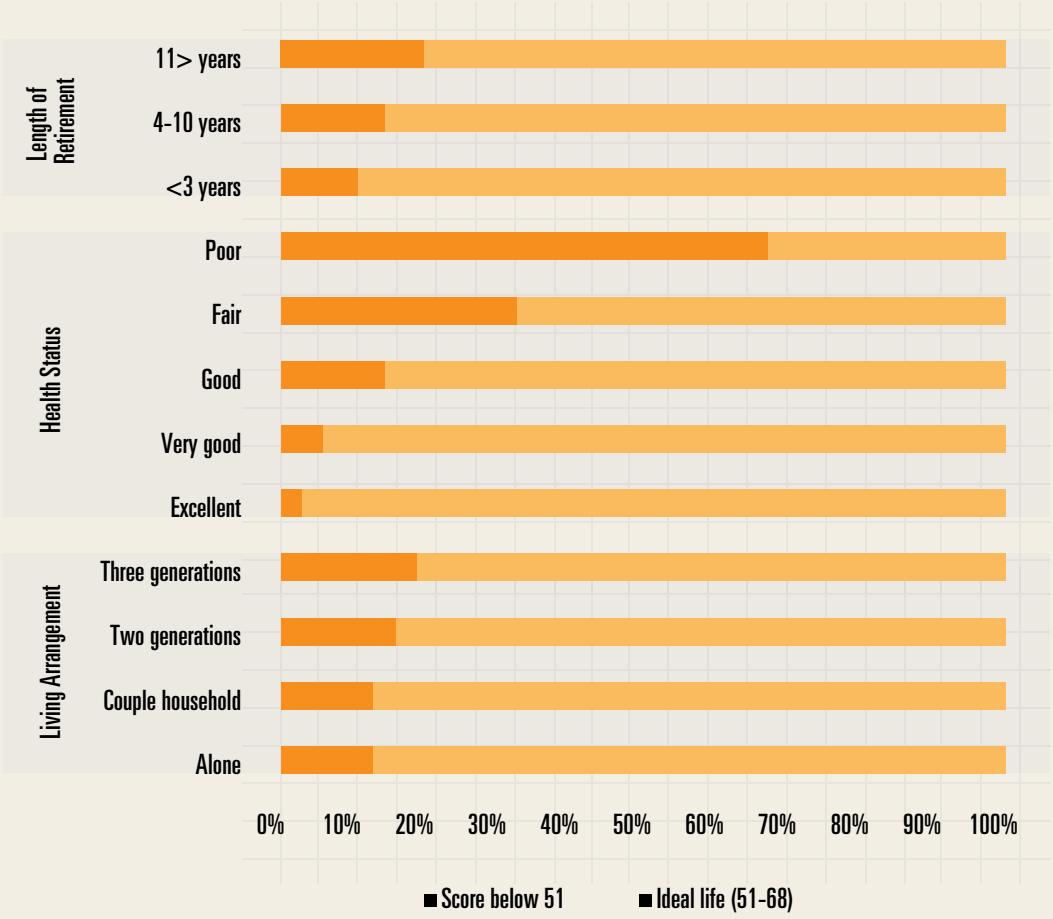


Figure 4.2-12: Score of life in retirement by living arrangements, health status and length of retirement

Overall, retirees practiced an ideal life in retirement which positively influence well-being.

Key Findings:

- Respondents reported positive attitude towards retirement.
- Majority of the respondents were prepared for retirement.
- Almost all respondents agreed that they were well adjusted to the change from working to retirement life, being able to spend more time with their spouse/ partner and enjoyed being retired.
- Male respondents displayed some difficulty in adjusting to retirement due to either unpreparedness or the change in roles.
- Close to half (46%) of the respondents reported that their income was just enough to cover expenses.
- Male respondents were more involved in personal activities, while female respondents were more involved in both personal and community activities.

4.3 Facilitating Environment and Barriers to Active Participation in the Community

Older persons are bestowed with skills, experiences, wisdom and knowledge which can be put to good use for the benefit of all citizens. Therefore, there is a need for continuing integration and empowerment of older persons in the community. Knowing the barriers and obstacles will help remove the discriminatory practices and provide opportunities for them to continue contributing to society and help maintain their personal well-being and quality of life and reduces the need for health care. This section focuses on the analyses of barriers and enablers to active participation of retirees in the community.

4.3.1 Barriers to Re-employment after Retirement

Figure 4.3-1 through 4.3-3 show the barriers perceived by retirees to work for pay after retirement. Health and age limit were the main barriers noted by both male and female respondents as barriers to work for pay (Figure 4.3-1). Health factor was more prominent. Barriers that recorded more than 10% were working environment not suitable for senior citizens, non-flexible working arrangement and cost versus benefit of going back to work.

More male than female respondents noted that age limit, working environment, cost versus benefit of returning to work, retraining and high salary as reasons for retirees to work for pay. On the other hand, more female respondents, mentioned health, family disapproval, non-flexible working arrangement and skills did not match market demand as reasons for not working after retirement.

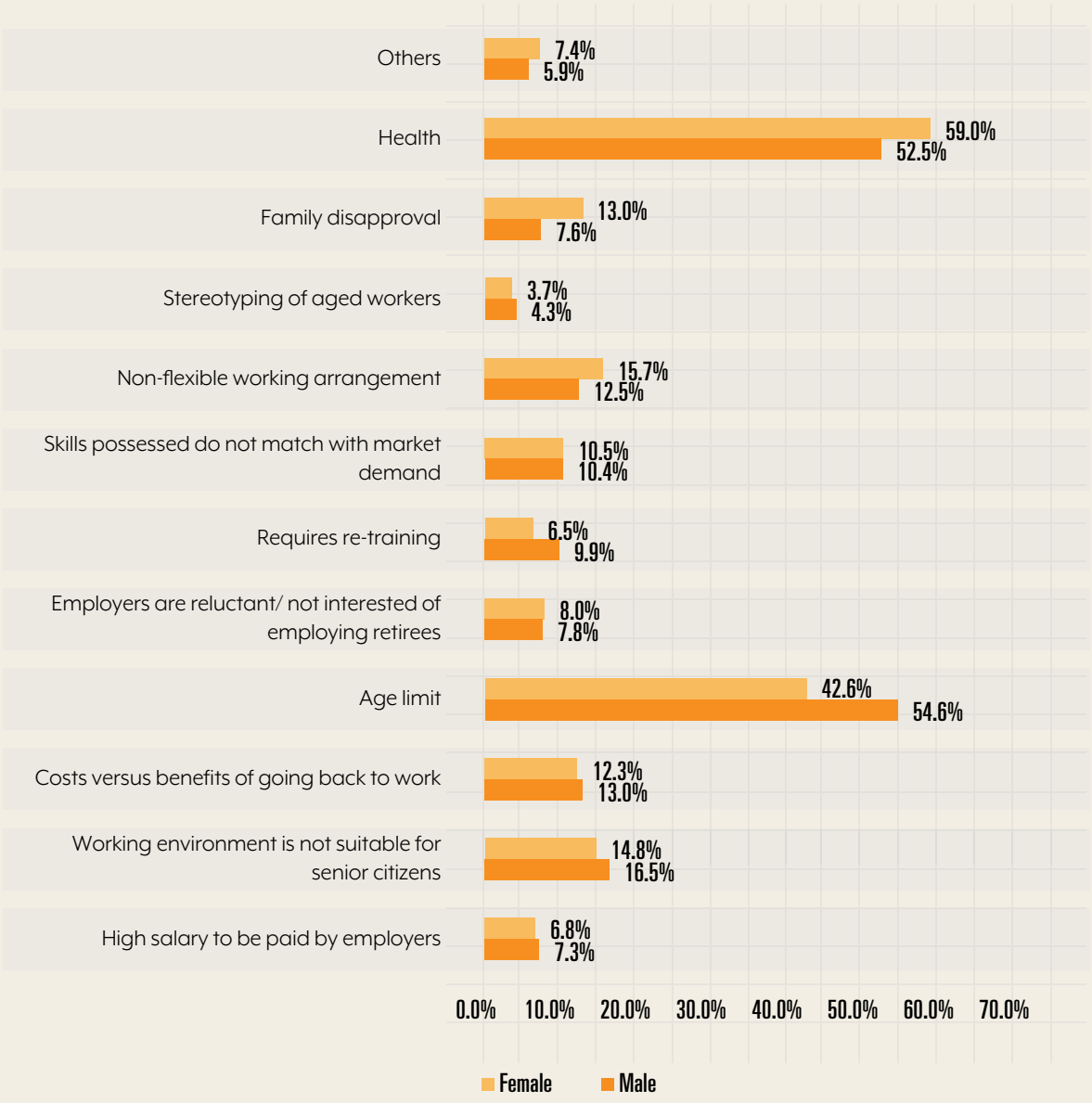


Figure 4.3-1: Barriers to work for pay by sex

In terms of education attainment, the same two reasons were noted for barriers to re-employment (Figure 4.3-2). More respondents with secondary education reported higher percentage for health and age limit as barriers to re-employment after retirement. Non-flexible working arrangements and working environment not suitable were noted by both education attainments as reasons for barriers to re-employment.

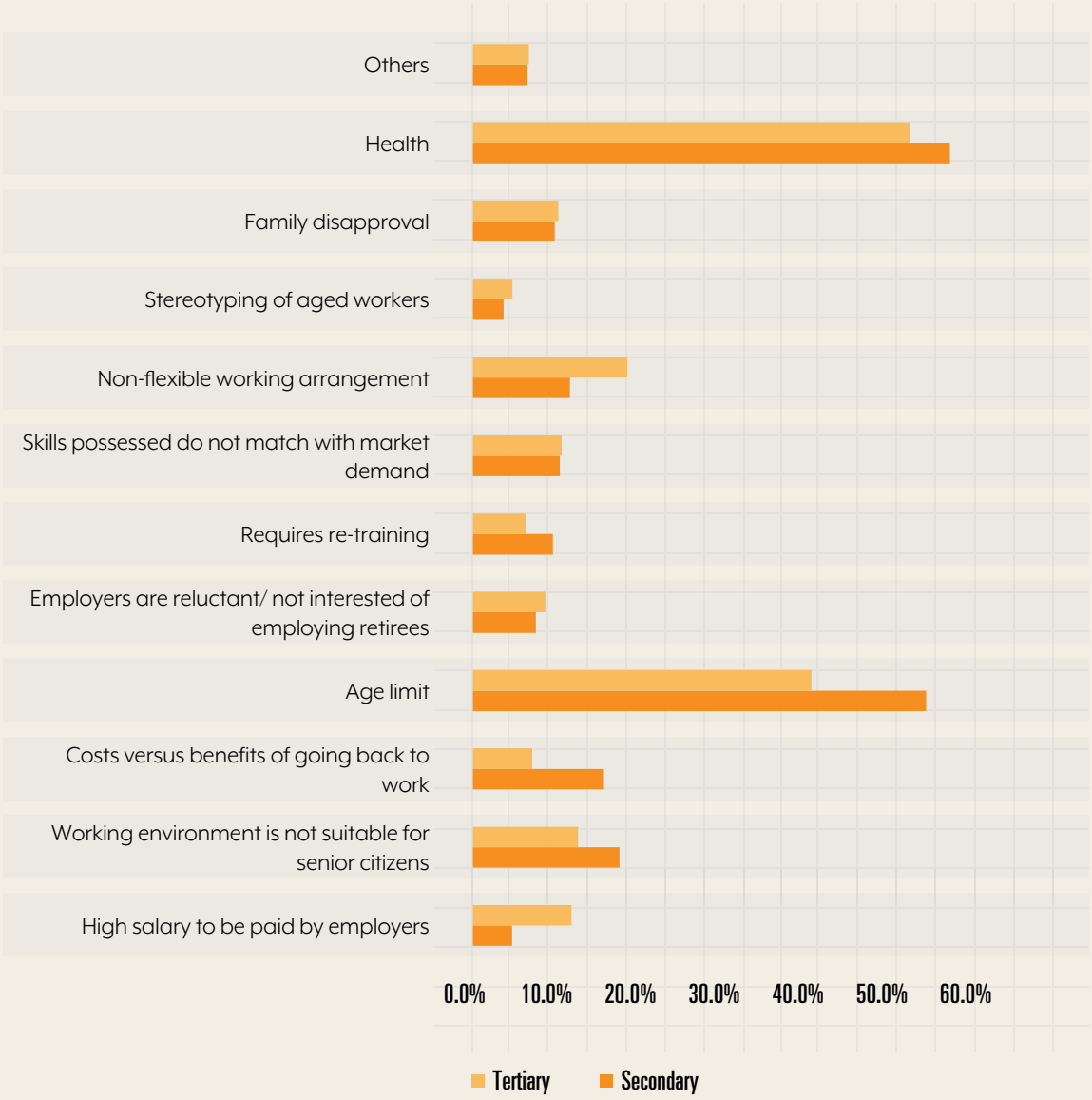


Figure 4.3-2: Barriers to work for pay by education attainment

Upon analysing the data by length of retirement, similar reasons were also reported as barriers to re-employment of retirees (Figure 4.3-3). Among respondents who retired less than three years, non-flexible working arrangement was cited higher than respondents who had retired four to ten years and over 11 years.

Health status and age limit were the two barriers to re-employment of the retirees as reported by the respondents. What this meant was if the health status was good and age limit on employment was not imposed, the workers would continue working.

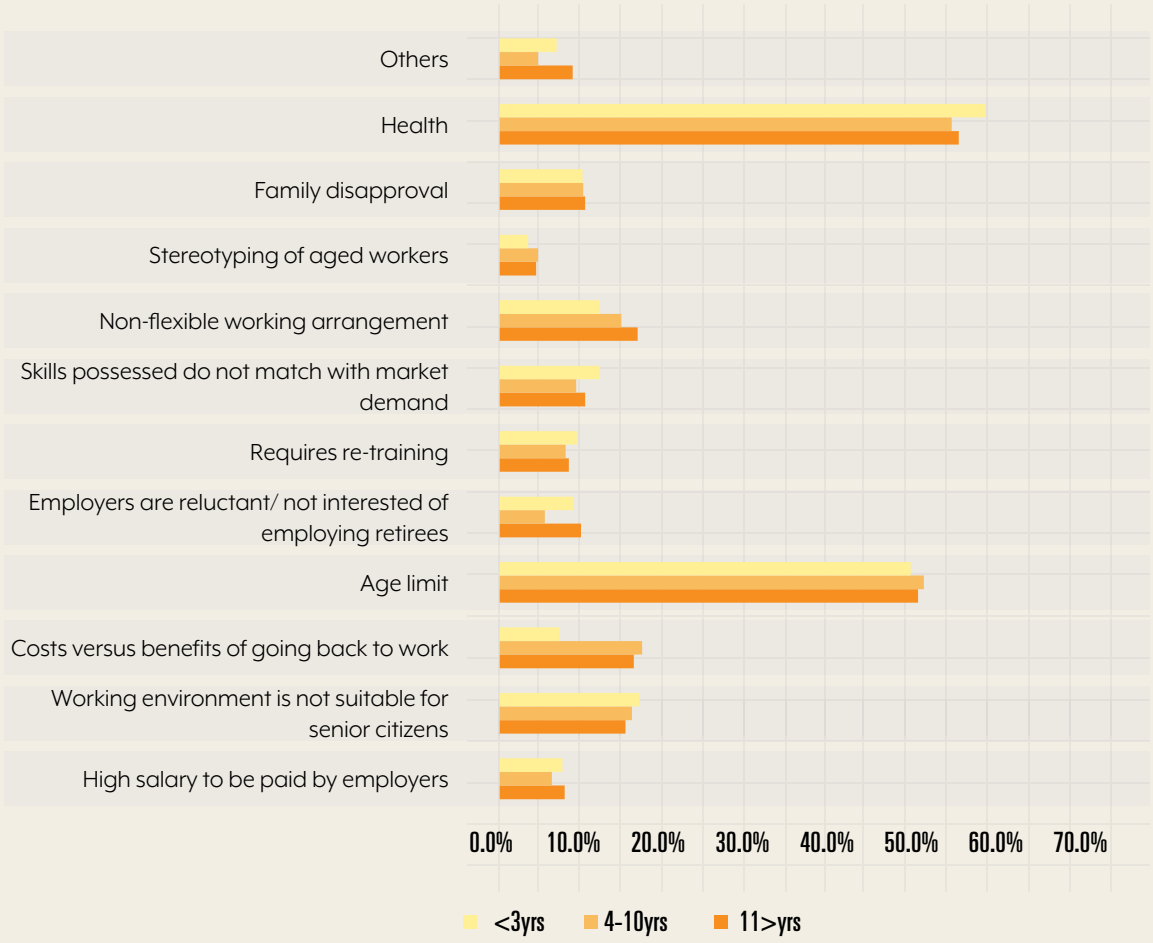


Figure 4.3-3: Barriers to re-employment by length of retirement

4.3.2 Barriers to Active Participation in the Community

The respondents were also requested to provide perceived barriers to active participation in the community. These barriers were analyzed according to sex (Figure 4.3-4), education attainment (Figure 4.3-5) and length of retirement (Figure 4.3-6). Figure 4.3-4 shows the barriers to active participation of retirees in the community.

Two personal reasons were mentioned as barriers to active participation in the community. Over 60% reported that they wanted to rest and having health problems limited their active participation. Another three reasons were age limit, wanting to fulfil family obligations and wanting to rest and focus on spiritual/religious activities. About 4% difference between female and male respondents were observed for distance from residential areas and no opportunity, as reasons for inactive participation in the community. A higher percentage of male respondents compared to female respondents cited a higher percentage of no motivation.

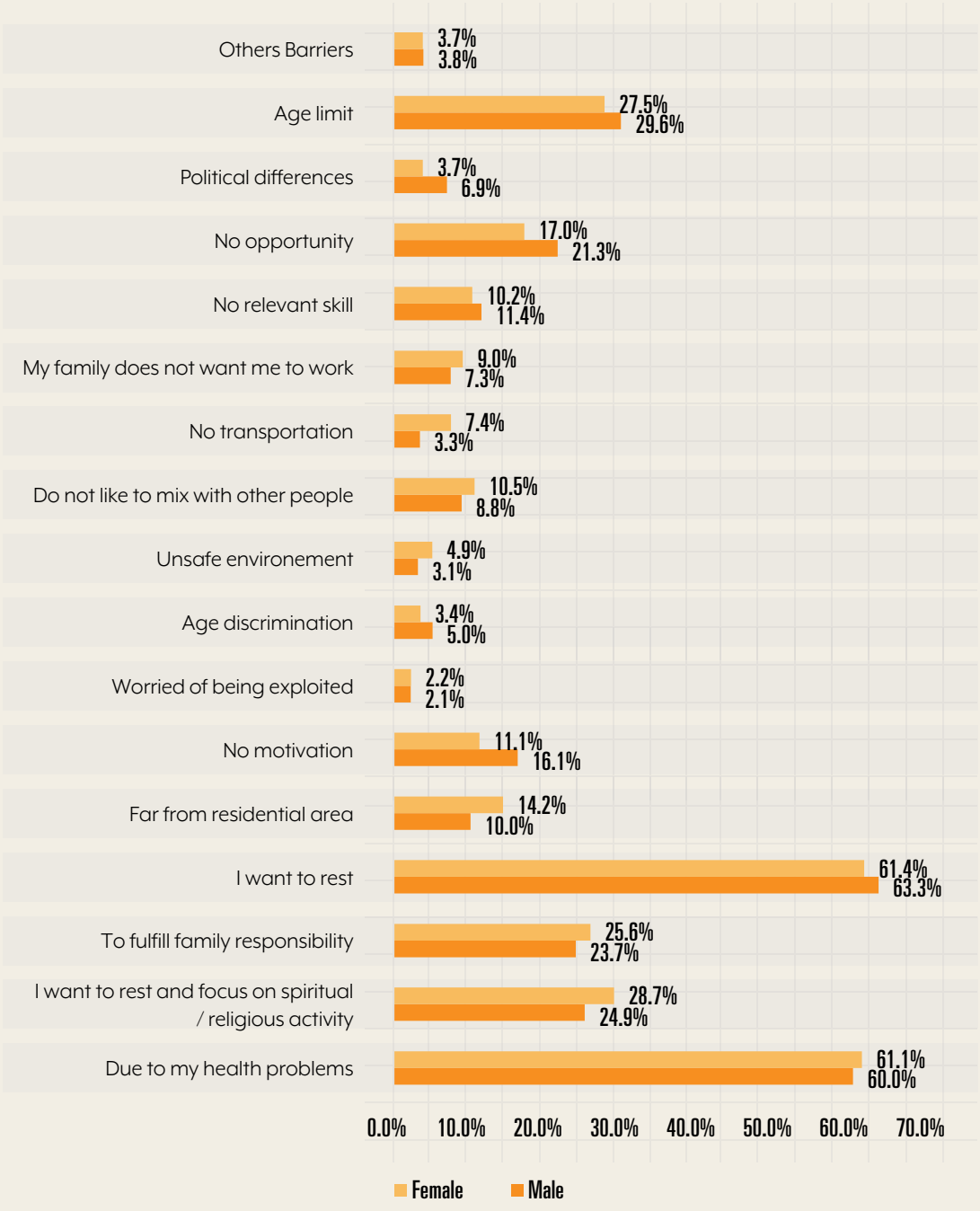


Figure 4.3-4: Barriers to active participation in the community by sex

Health problems, wanting to rest, age limit, fulfil family responsibilities and wanting to rest and focus on spiritual/ religious activities were the main reasons cited for non- active participation in the community reported by respondents of both education attainments (Figure 4.3-5).

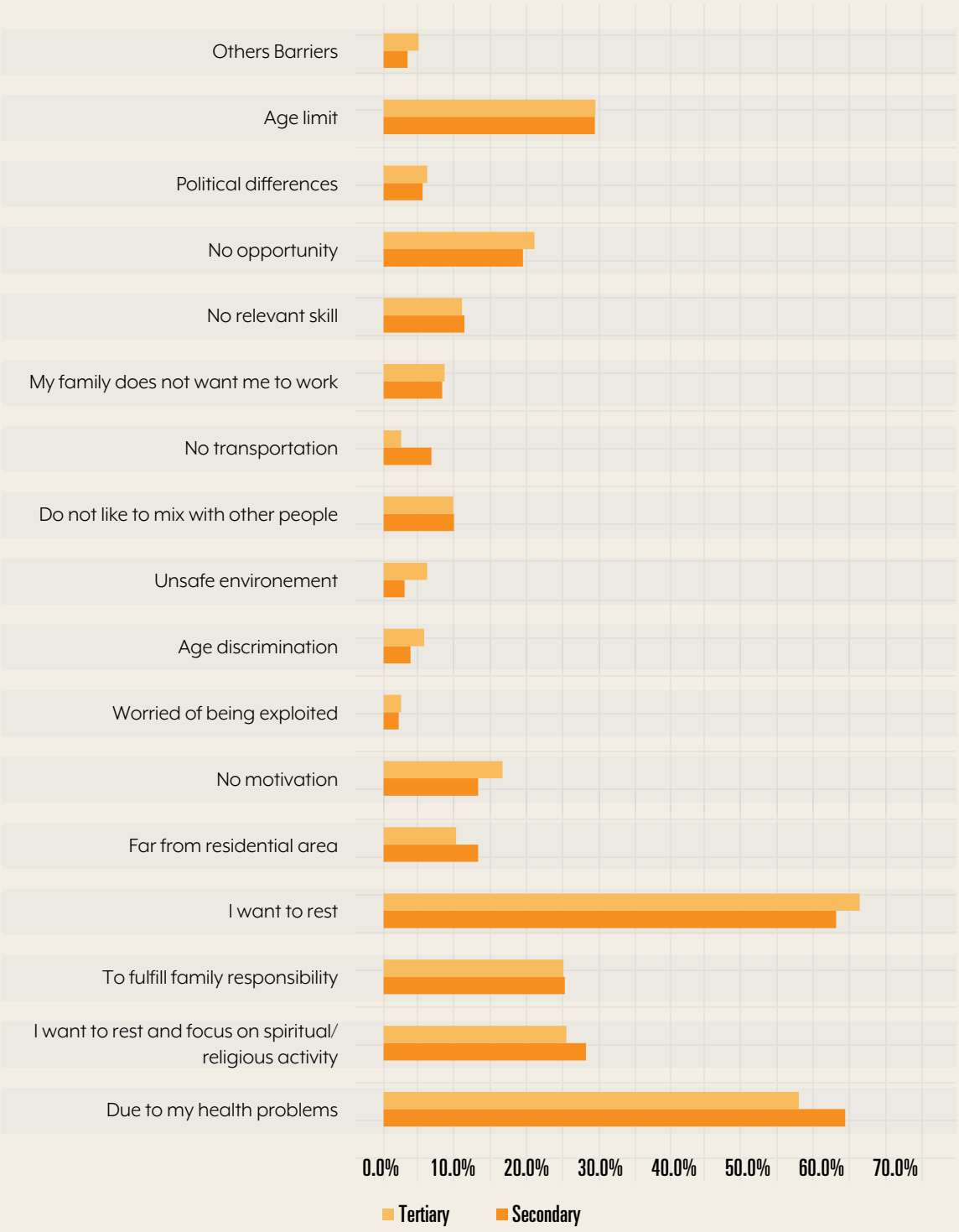


Figure 4.3-5: Barriers to active participation in the community by education attainment

The same reasons were noted by respondents for non-active participation in the community regardless of length of retirement. These may reflect the general attitude of retirees of not wanting to be involved in the community and health problems may compound this issue (Figure 4.3-6). To enable active participation in the community, retirees ought to practice healthy lifestyle.

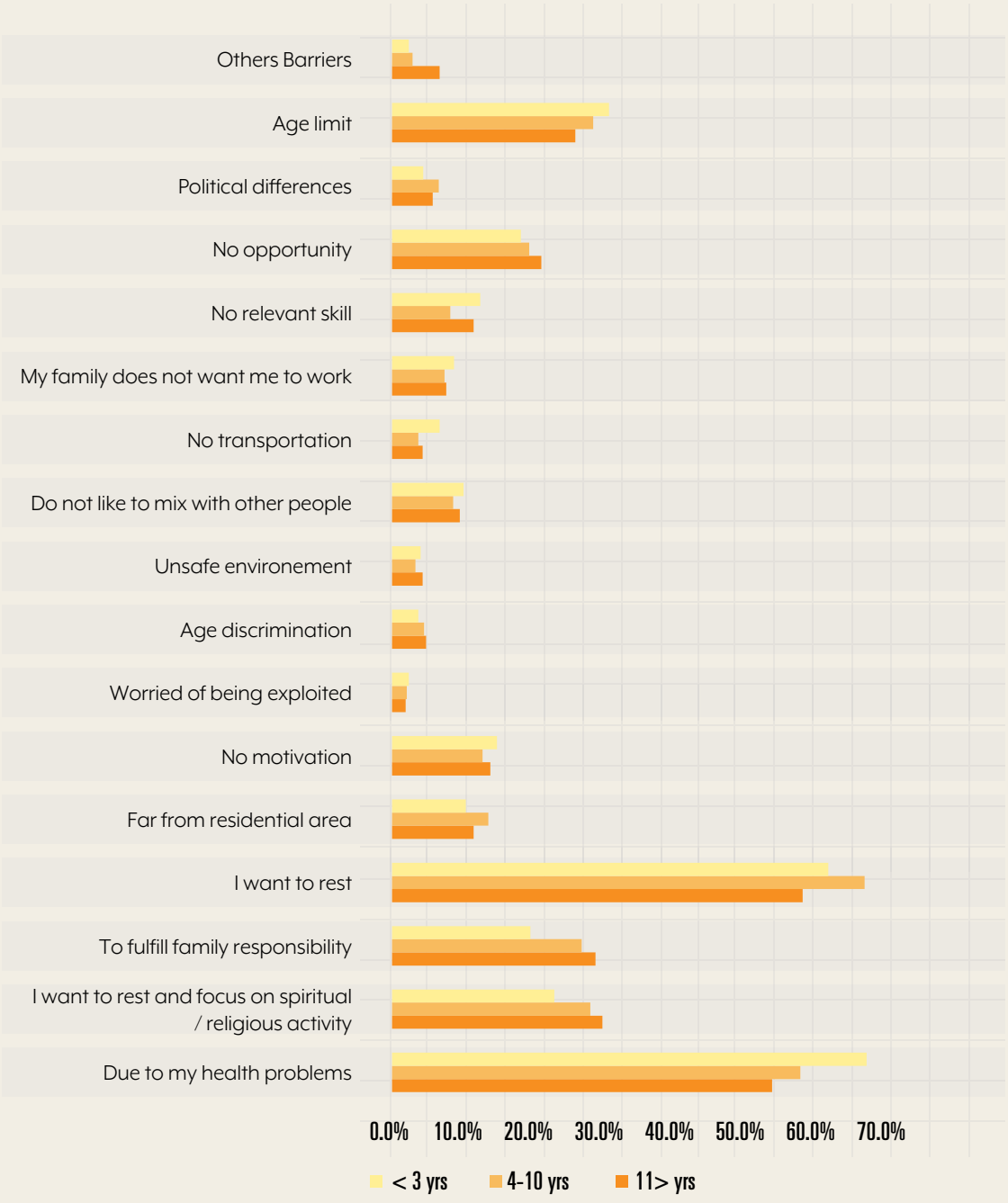


Figure 4.3-6: Barriers to active participation in the community by length of retirement

4.3.3 Facilitating Environment to Active Participation in the Community

The respondents were also requested to provide suggestions to encourage the participation level of retirees in the community. Figure 4.3-7 to 4.3-9 provide the reasons, analyzed by sex, education attainment and length of retirement. About 60% of the respondents reported maintaining good health as an enabler to active participation in the community. The second highest enabler was opportunity to mix with other people, followed by opportunity to share experiences. Marked differences between female and male respondents were noted for reasons of financial reward and instilling the feeling of responsibility to the community.

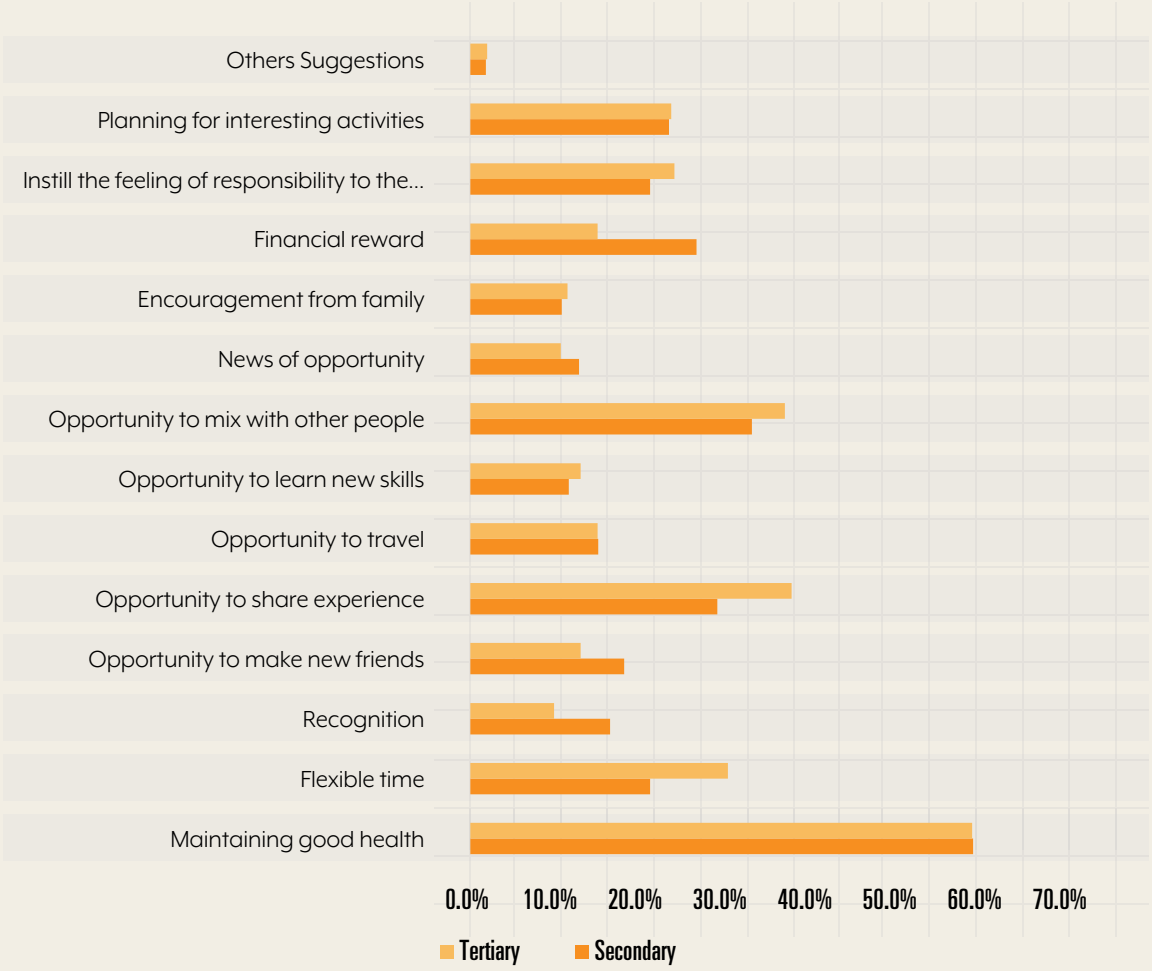


Figure 4.3-7: Facilitating environment to active participation in the community by sex

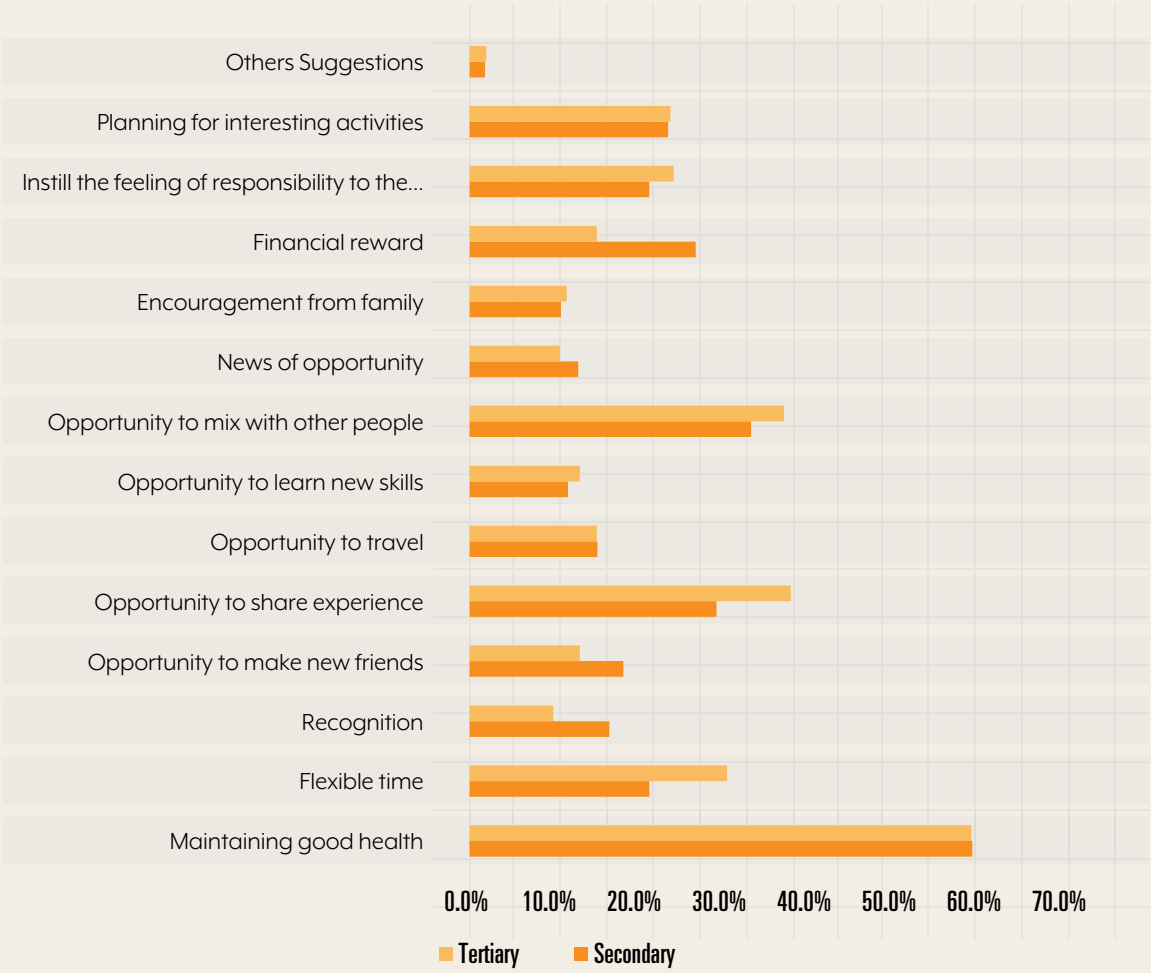


Figure 4.3-8: Facilitating environment to active participation in the community by education attainment

Figure 4.3-9 indicates that not much difference was noted in types of enablers cited by retirees regardless of their length of retirement. The only notable difference was for "maintaining good health", where a higher percentage of those who had retired longer cited this reason as enablers for active participation in the community. Respondents who had experienced retirement of less than three years, mentioned that it was the opportunity to mix with others, planning for interesting activities, financial reward and flexible time seemed as enablers to community involvement that enabled active participation of retirees. Respondents who had retired between four to ten years years, noted a higher percentage for opportunity to share experiences as the encouraging factor for active participation in the community.

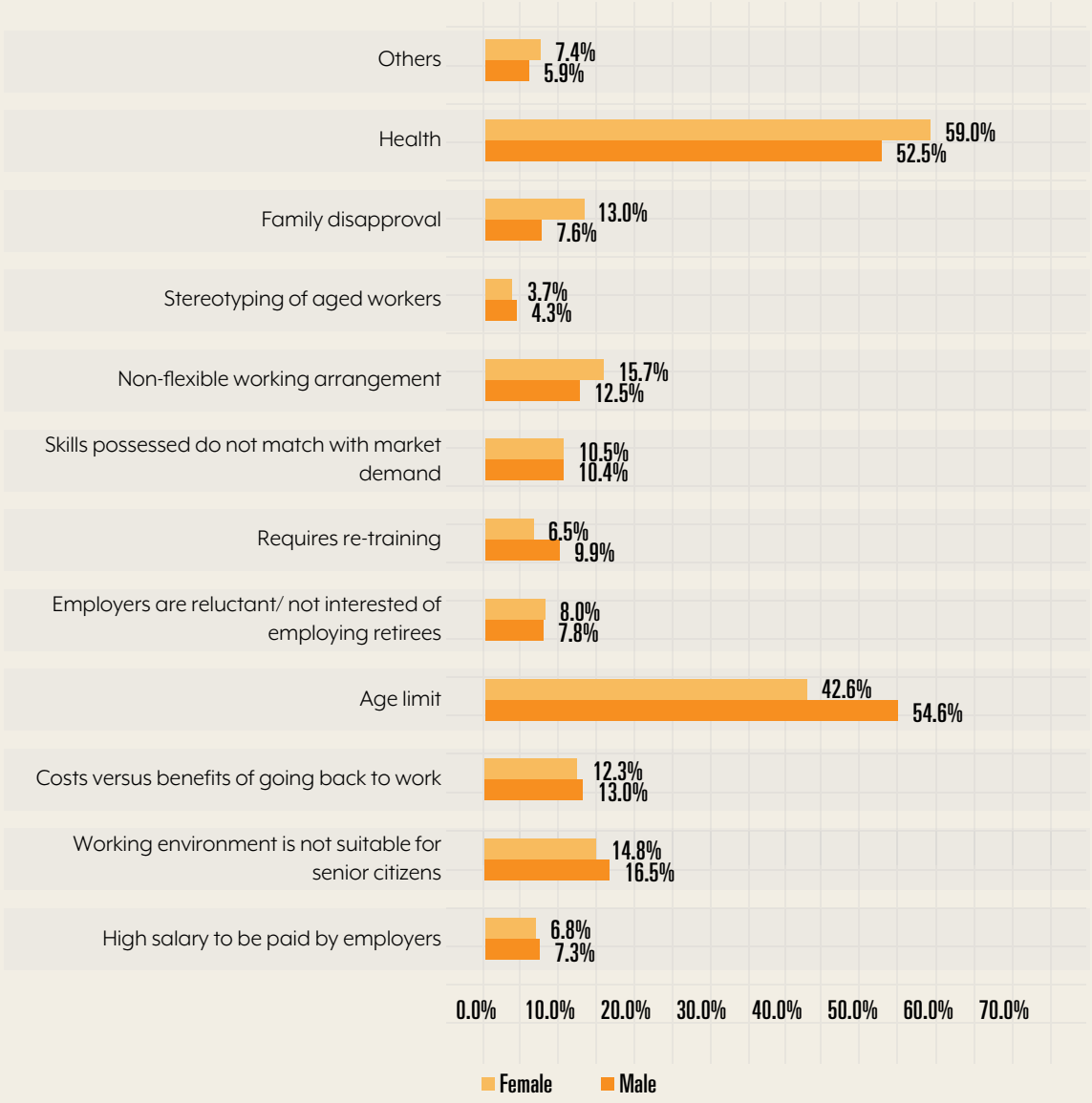


Figure 4.3-9: Facilitating environment to active participation in the community by length of retirement

Age limit and health were also attributed to reasons for not seeking re-employment after retirement. From the perspective of active participation in the community, health status was both an enabler and barrier to participation. Wanting to rest seemed to be a major barrier to active participation of retirees in the community and the second barrier was age limit.

Key Findings:

- Main barriers to work for pay were health and age limit.
- Top two barriers to active participation in the community were they wanted to rest and health problems.
- About 60% of the retirees reported maintaining good health as a facilitating environment to active participation in the community.

4.4 Productive Activities

4.4.1 Work in Retirement

Asked if they were currently working, only 30% respondents indicated they were working after retirement. They comprised of 38.1% males, 19.4% females, 26.4% with secondary education, 36.9% with tertiary education, 22.1% retired less than three years, 25.6% among those who retired four to ten years and 38.9% among those who retired more than 11 years.

Figure 4.4-1 shows types of activities the working group were involved in. Among those 30% who worked, 46.9% were involved in paid work, 18.3% were involved in self-employment, 18.3% were also involved in running own businesses and 20.5% were involved in voluntary activities. The percentage of those involved in different types of activities by sex, education attainment and length of retirement is shown in Figure 4.4-1. A higher percentage of male respondents, those with tertiary education and those who retired more than 11 years were involved in work for pay compared to the other groups.

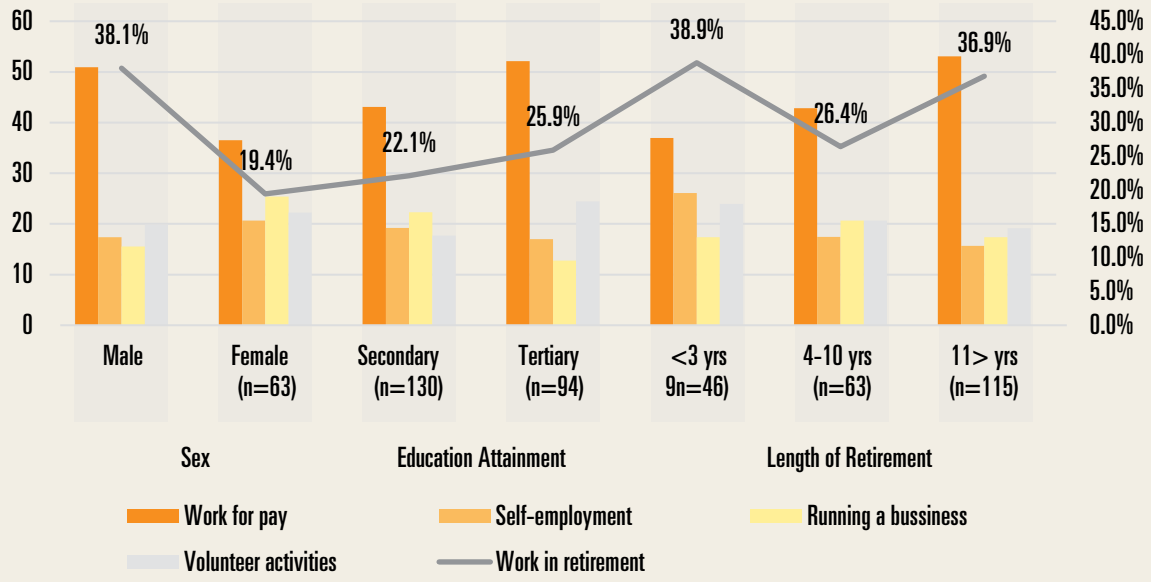


Figure 4.4-1: Percentage of respondents who work for pay and types of activities

Respondents were asked reasons for them to work for pay in retirement and the responses are shown in Table 4.4-1. Among the male respondents, the top three reasons given were the following: in need for money to support living; enjoy working/ running a business; and their preferences to engage in something meaningful (i.e. work). Top three reasons reported by female respondents who continued to work for pay after retirement were: preference in doing meaningful activities (work), desire to continue contributing to society and enjoyment in working/ running a business. Differences in justifications for post-retirement work were different among those with different education attainment. Those with secondary education or lower suggested the following reasons: in need of money to support their living; enjoy working/ running a business; to keep them busy. Those with tertiary education had slightly different justifications, namely: preference to engage in meaningful work and desire to continue contributing to society. Reasons given were based on length of retirement was also different with those who recently retired, who indicated that they work to continue contributing to society, prefer to do meaningful work and want to utilize my skills. Top three reasons given by those who have retired for more than 11 years were need money to support living, prefer to do meaningful work and enjoy working/ running a business as well as want to utilize their skills.

Those who indicated they were completely retired were also asked to indicate reasons for not working or involved in any other activities. As mentioned earlier, there were 70% of respondents who indicated they were not involved in any kind of work. Reasons given is shown in Table 4.4-2. The dominant reason given was that they wanted to rest. This reason was the top reason given by all groups. Health reason was the second reason mentioned followed by taking care of spouse. The reasons given were similar across all groups.

It is crucial for retirees to maintain vitality in old age. One way of achieving that is by actively involved in the community. Those who planned to simply rest in retirement faced a higher risk in physical and mental deterioration which eventually lead to increase in medical and care cost.

Table 4.4-1: Reasons for working by selected background

Reasons for working	Sex		Education attainment		Length of retirement		
	Male	Female	Secondary	Tertiary	< 3years	4-10 years	11> years
I need money to support my living	40.4%	28.6%	49.2%	20.2%	26.1%	41.3%	39.1%
I need extra money for leisure activities such as vacation	7.5%	7.9%	7.7%	7.4%	8.7%	7.9%	7.0%
To keep my life organized	28.0%	25.4%	29.2%	24.5%	37.0%	25.4%	24.3%
To maintain my social network	14.3%	12.7%	12.3%	16.0%	13.0%	11.1%	15.7%
I prefer to do meaningful work	32.3%	44.4%	30.0%	43.6%	45.7%	22.2%	39.1%
I enjoy working/ running a business	34.8%	39.7%	38.5%	33.0%	43.5%	39.7%	31.3%
To learn new things	4.3%	7.9%	3.8%	7.4%	2.2%	9.5%	4.3%
I want to keep busy	31.1%	15.9%	32.3%	19.1%	41.3%	19.0%	25.2%
I want to utilize my skills	29.8%	31.7%	23.8%	39.4%	30.4%	28.6%	31.3%
To continue contributing to society	28.0%	41.3%	25.4%	40.4%	45.7%	23.8%	30.4%

Table 4.4-2: Reasons for not working by selected background

Reasons for not working	Sex		Education attainment		Length of retirement		
	Male	Female	Secondary	Tertiary	< 3years	4-10 years	11> years
Due to my health condition	27.4%	25.1%	28.4%	21.5%	17.4%	31.4%	29.0%
To involve in lifelong learning	1.9%	5.7%	4.1%	3.1%	4.3%	3.2%	3.8%
JKKK, Neighbourhood Watch, Residential Association	4.9%	2.7%	4.4%	2.5%	2.5%	4.9%	3.8%
Teach the Qur'an and do tuition for free	.4%	1.5%	.5%	1.8%	0.0%	1.6%	1.1%
I would like to travel regularly))	3.4%	6.1%	3.3%	8.0%	5.0%	5.4%	3.8%
My family does not want me to work	4.5%	6.5%	6.3%	3.7%	5.6%	6.5%	4.4%
I want to rest	74.8%	65.8%	71.3%	68.1%	77.0%	66.5%	68.3%
Taking care of my spouse	12.8%	11.8%	13.9%	8.6%	14.9%	9.7%	12.6%
Taking care of my children	4.1%	5.3%	4.9%	4.3%	5.6%	3.2%	5.5%
Taking care of my grandchildren	7.5%	11.4%	10.4%	7.4%	7.5%	10.3%	10.4%
Taking care of my parents/ in-laws	1.1%	4.9%	2.7%	3.7%	2.5%	3.8%	2.7%
Other reasons	6.4%	4.6%	5.5%	5.5%	5.6%	4.3%	6.6%

4.4.2 Time Use Pattern

Older persons may retire from work, but this does not necessarily mean they are irrelevant or useless. Their involvement and engagement in the family and society not only benefit them but also families and communities have a lot to gain from them as well. In the current study, the productive activities are categorised into three: (i) routine activities, (ii) care and support and (iii) occasional activities. Specific to care and support, the types of inter-generational support will be detailed out for both co-residing and non-co-residing adult children.

4.4.2.1 Activities Involving Own Routine

Figure 4.4-2 shows the percentage of older persons involved in activities related to self-care and support involving others. For routine activities related to self, the five most reported routine activities by retirees were watching TV or browsing the internet (92%), doing household chores (83%), reading (80%), exercising (63%) and gardening (40%). Despite showing the highest frequency of respondents who were doing it, the time spent on watching TV per week (i.e. 14 hours) was ranked third after the time spent on employment (21 hours per week) and doing household chores (15 hours per week).

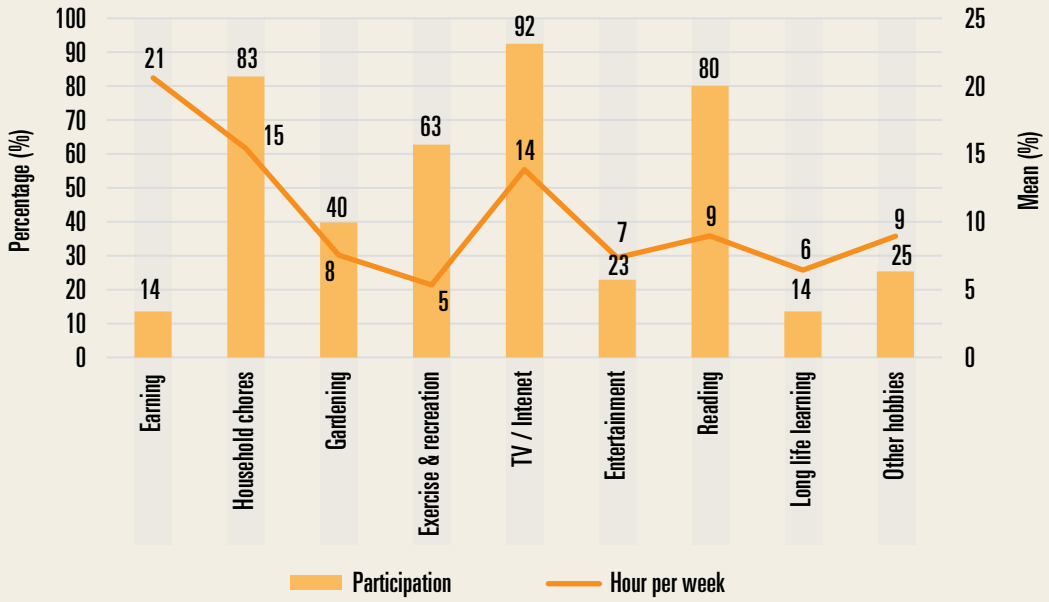


Figure 4.4-2: Involvement in various types of own routines and time spent per week on the activities

The result was also cross-examined by sex, education attainment and length of retirement. Figure 4.4-3 indicates that, for both sexes, the three activities with the highest percentage of involvement were watching TV or browsing the internet, doing household chores and reading. However, male and female respondents slightly differed in their time use pattern – i.e. males had a higher percentage of involvement than females the following activities: exercise and recitation, gardening, other hobbies, entertainment and income generating activities. The female respondents had a higher percentage of involvement than male respondents only in the following activities: household chores and reading. In terms of time spent per week, basically both sexes spent almost the same number of activities per week in all activities except earning money and household chores. In such cases, there was a clear division of labour between sexes whereby male (despite a small number of those who were involved in income-generating activities) spent more time in these activities (24 versus 14 hours per week) than female. On the other hand, the female respondents spent more time in household chores compared to male – i.e. 21 hours per week compared to only 11 hours per week for male respondents.

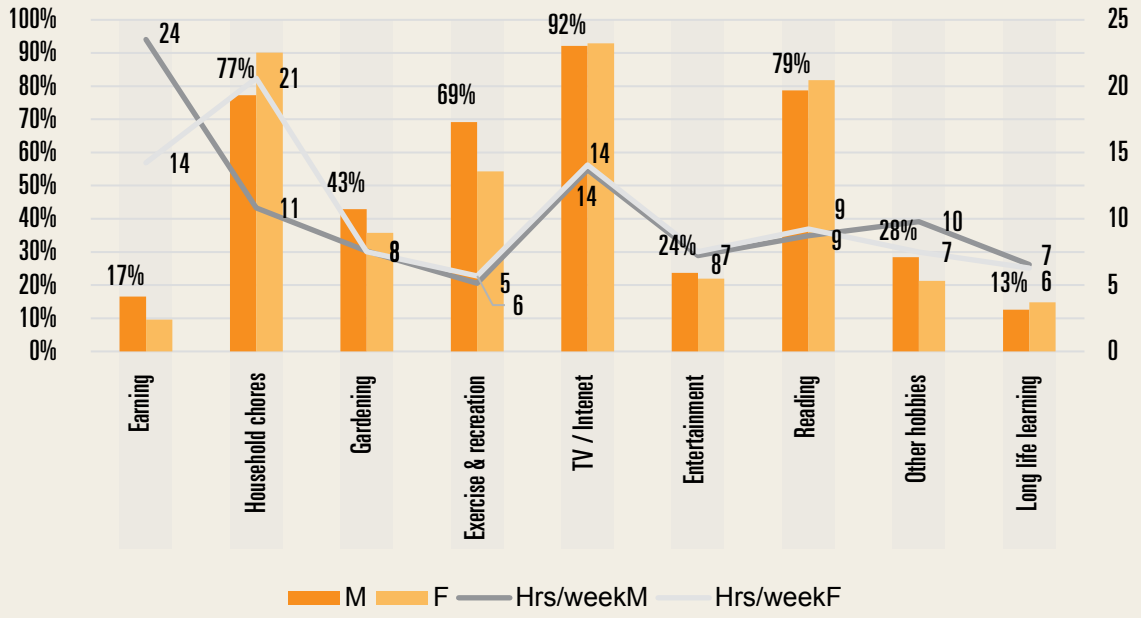


Figure 4.4-3: Involvement in various types of own routines and time spent per week on the activities by sex

Trends in activities among respondents with different education attainment is shown in Figure 4.4-4. Those with tertiary education or higher reported a higher percentage of involvement in all activities compared to those with secondary education or lower, except household chores. In terms of time spent on each activity, the mean hour spent per week for both education attainment was about the same except that those with higher education attainment spent relatively more hours per week on reading.

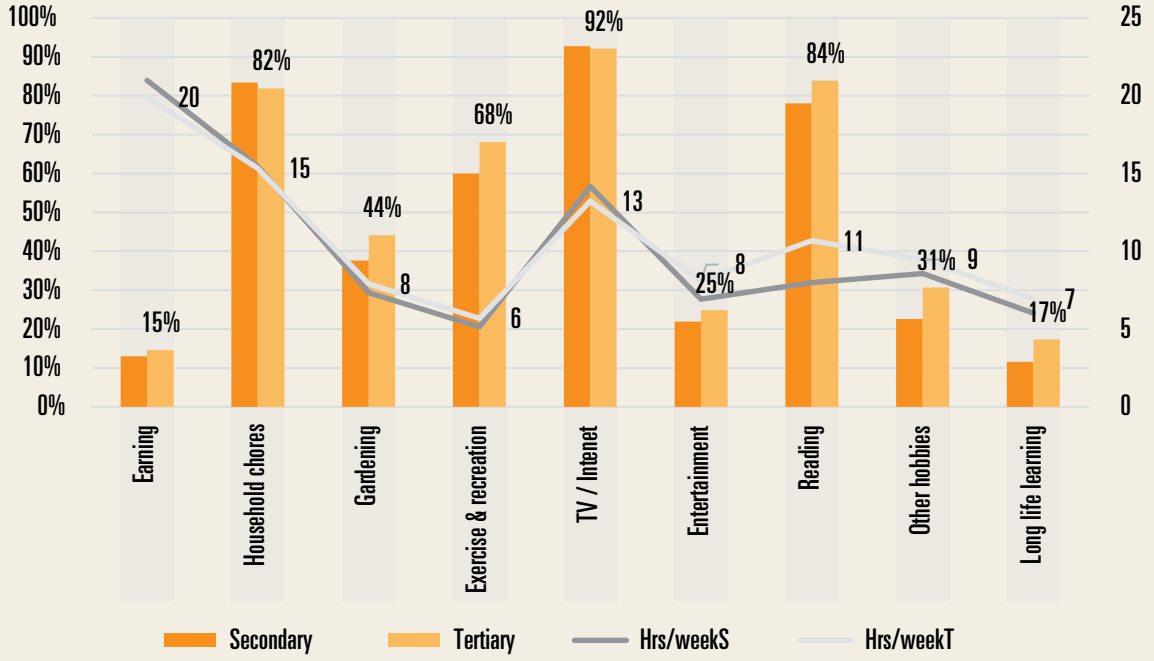


Figure 4.4-4: Involvement in various types of own routines and time spent per week on the activities by education attainment

The trend in participation of respondents by the length of retirement in own routine activities is shown in Figure 4.4-5. Almost similar pattern was noted except that even though those who retired within three years indicated a higher percentage among the groups, but this group reported the least time spent in employment compared to the older age cohort.

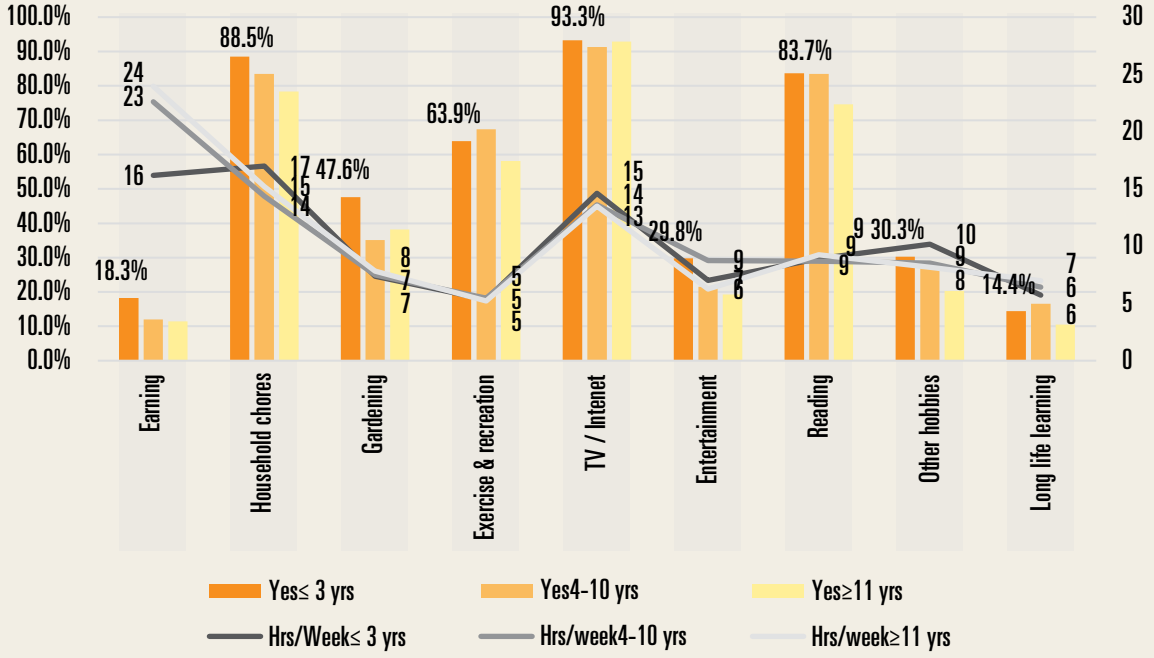


Figure 4.4-5: Involvement in various types of own routines and time spent per week on the activities by length of retirement

4.4.2.2 Activities on Care and Support for Families and Communities

For activities related to care and support, the respondents were reported to be involved in the following activities: caring for spouses (52%), religious groups (37%), caring for grandchildren (29%), caring for children (22%), doing chores for other households (23%) and volunteering (23%). However, most of the respondents' time were spent caring for parents/in-laws (43 hours per week), caring for children (38 hours/week), caring for spouses (25 hours/week) and caring for grandchildren (24hours/week). Thirty seven percent respondents were involved in religious groups, doing chores for other households and involved in volunteerism (23% respectively). However, the time spent per week was not much (i.e. 5 hours per week or less).

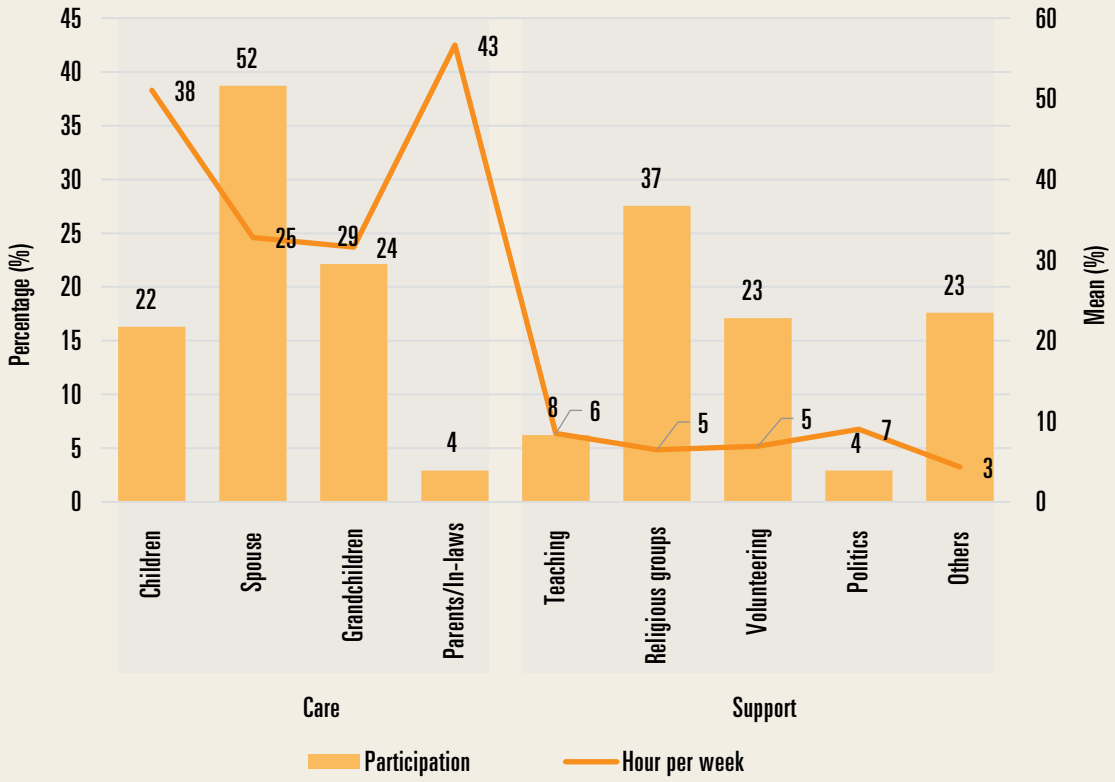


Figure 4.4-6: Care and support provided for family members and time spent per week

The percentage of male and female respondents involved in care for family members was about the same although female indicated a higher percentage of involvement in all types of care except in caring for spouses. The most time spent on care for both sexes was care for children (male: 35 hours per week; female: 42 hours per week) and care for parents (male: 44 hours per week; female: 42 hours per week). Interestingly, male respondents were reported to have a slightly higher time spent on care for parents and parents in-law compared to female. In terms of support, there was a higher percentage of male involved in helping other household chores and volunteering although the time spent by both sexes in both activities were the same – i.e. about five hours. On the other hand, a higher percentage of female respondents were reported to be involved in religious group activities, but both spent an average time of five hours per week.

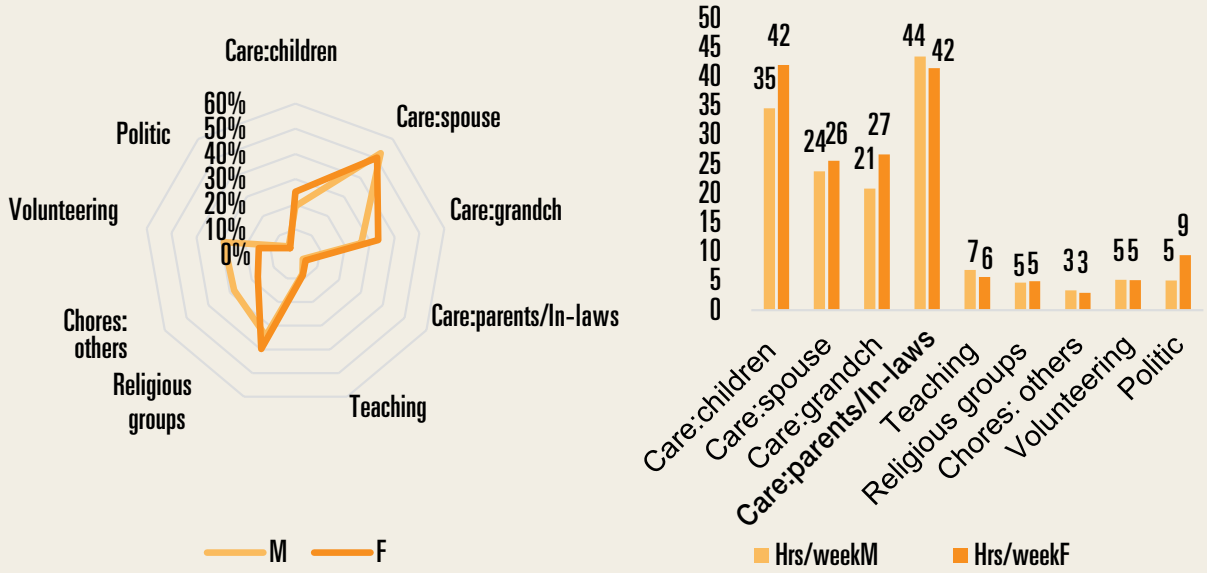


Figure 4.4-7: Types of care and support provided for family members and time spent per week by sex

Figure 4.4-8 indicates that respondents with different education attainments have a slightly different percentage of time use related to care and support for family members – those with secondary education or less reported a slightly higher percentage on the following: care for spouse, care for grandchildren, involvement in religious groups, doing chores for other households and involvement in politics. However, those with higher education reported a higher percentage on caring for own children, caring for parents, teaching and volunteering. The time spent for both groups were almost the same except that those with lower education spent more on caring for parents while those with higher education spent more time caring for own children.

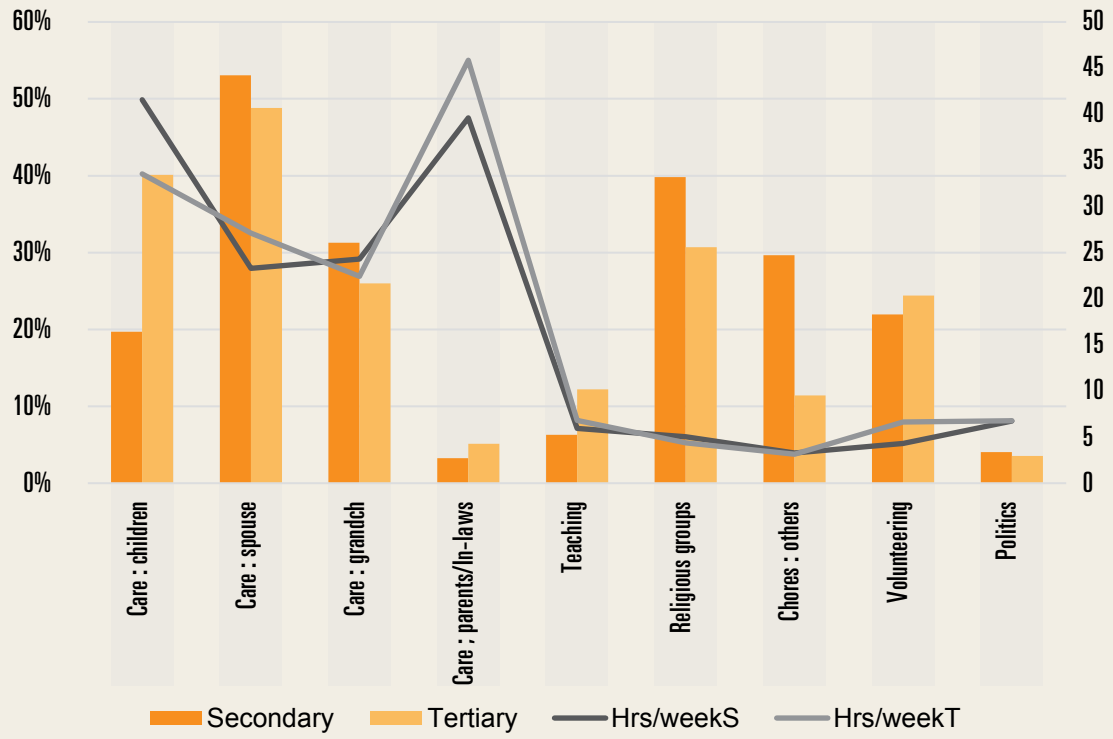


Figure 4.4-8: Types of care and support provided for family members and time spent per week by education attainment

4.4.2.3 Occasional Activities

Figure 4.4-9 indicates activities that were done occasionally within a year as reported by the respondents. The top three occasional activities reported were visiting (79%), vacationing domestically (62%) and involvement in community teamwork such as JKKK (45%). However, the number of days spent in a year for the activities was the highest for their involvement in religious associations (79 days per year). For other activities, respondents spent between 9 to 14 days per year. For occasional activities, male respondents indicated a higher percentage of involvement and the number of days spent in a year for all types of occasional activities (Figure 4.4-10).

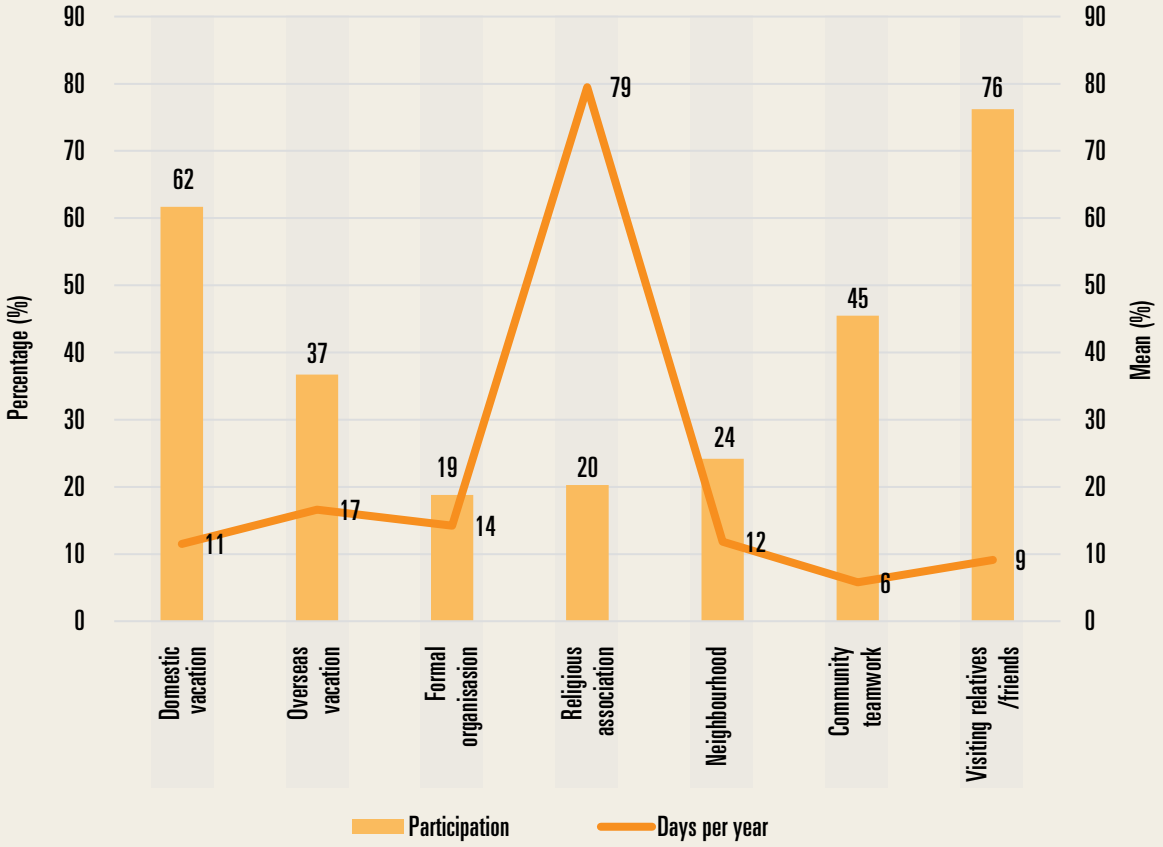


Figure 4.4-9: Types of activities done occasionally and number of days spent per year on the activities

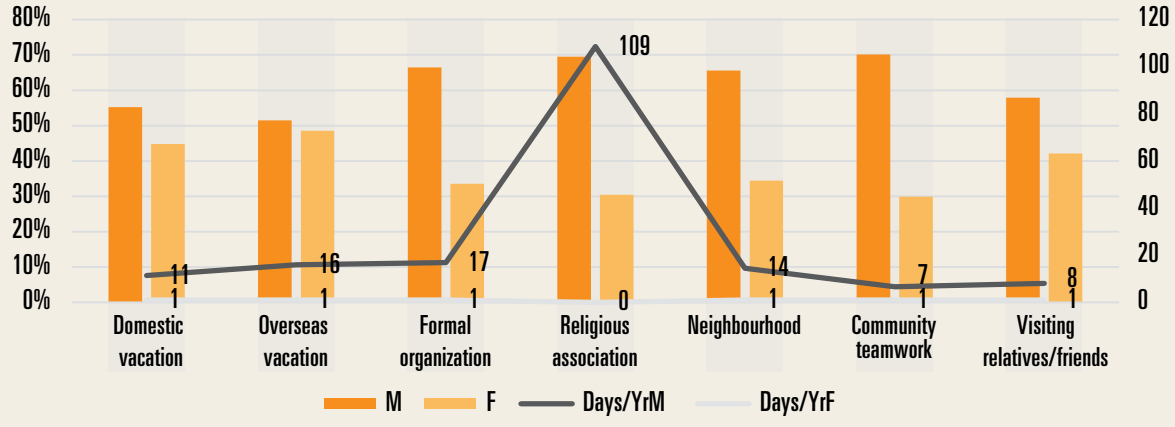


Figure 4.4-10: Types of activities done occasionally and number of days spent per year on the activities by sex

As expected, those with higher education indicated the highest involvement in vacation either domestic (68% compared to 58%) or overseas (55% versus 27%), as well as reported the most number of days per year spent on the two activities compared to those with lower education. Figure 4.4-11. This probably is related to their difference in financial resources, thus the question of affordability for vacation especially when vacationing overseas. Respondents with lower education had a slightly higher percentage of involvement for all other activities except vacation, than their counterparts with higher education with the most days spent on activities related to religious associations. Activities by length of retirement did not show much variations except that those who retired between four to ten years reported to have spent on average of 108 days per year to be involved in religious associations (Figure 4.4-12).

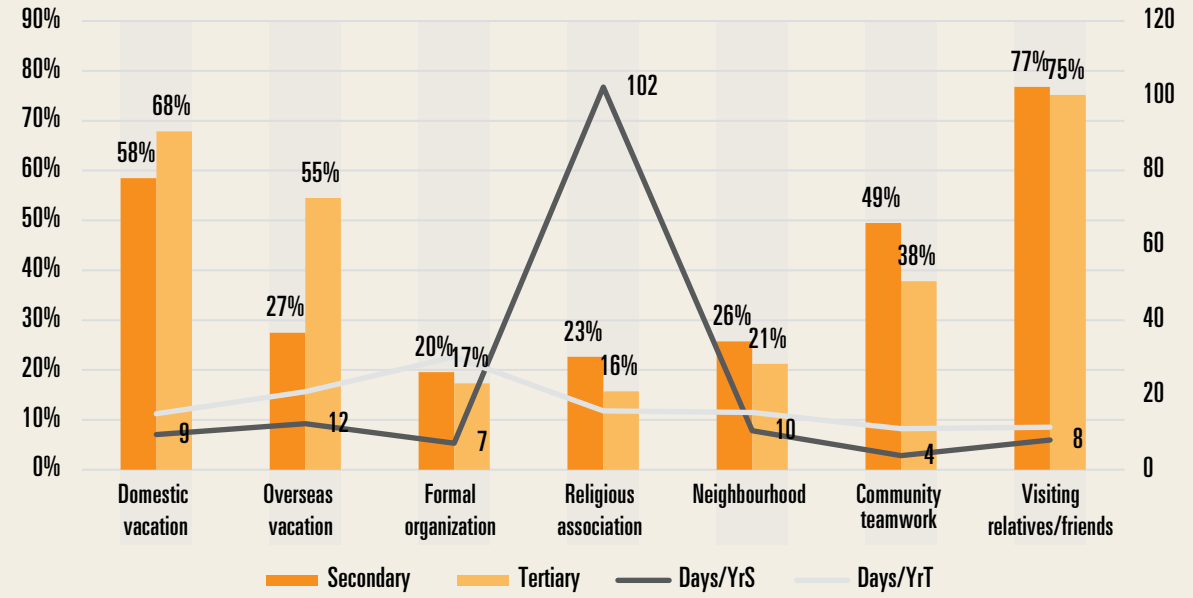


Figure 4.4-11: Types of activities done occasionally and number of days spent per year on the activities by education attainment

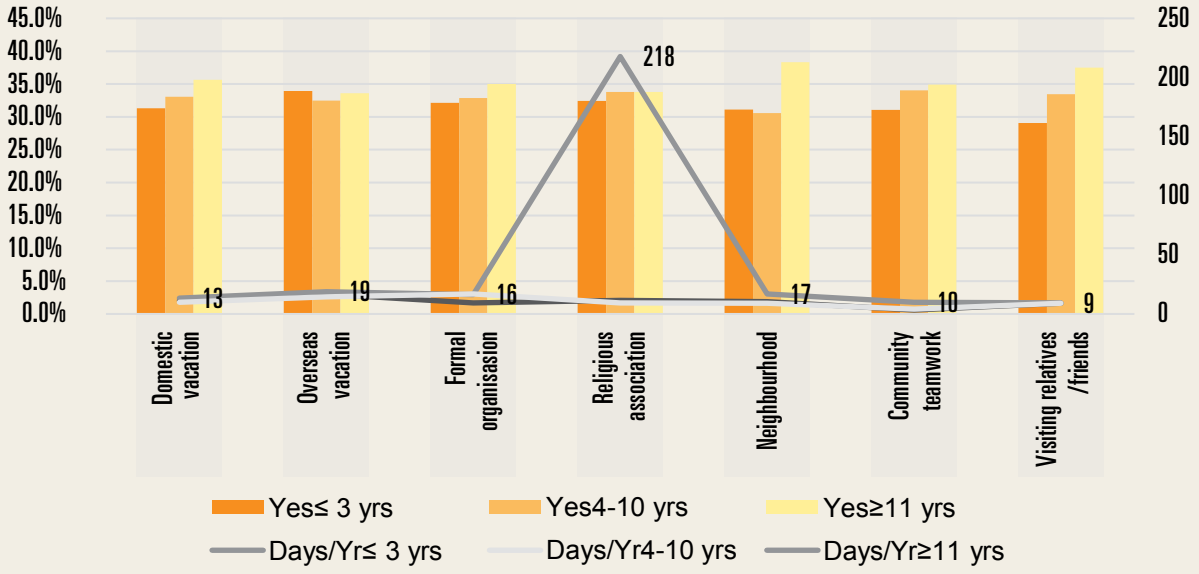


Figure 4.4-12: Types of activities done occasionally and number of days spent per year on the activities by the length of retirement

4.4.2.4 Intergenerational Support

Intergenerational support goes in both directions – i.e. from adult children to parents and from parents to children, be it among co-residing and non-co-residing children.In general, intergenerational transfers occurred among a relatively small percentage of respondents as most of them indicated neither giving nor receiving support, especially among non-co-residing adult children. This was probably due to the fact that respondents of the current study were physically and economically independent. Figure 4.4-13 shows that more reported to provide support to co-residing children. This was especially for the daily provision of meal preparation and household chores which were reported by 43% and 42% respondents respectively. Only less than 20% reported to provide support for their co-residing children in terms of care for grandchildren and other care services. For non-co-residing children, most of the support (albeit a small percentage who reported to do so) occurred on a monthly basis.

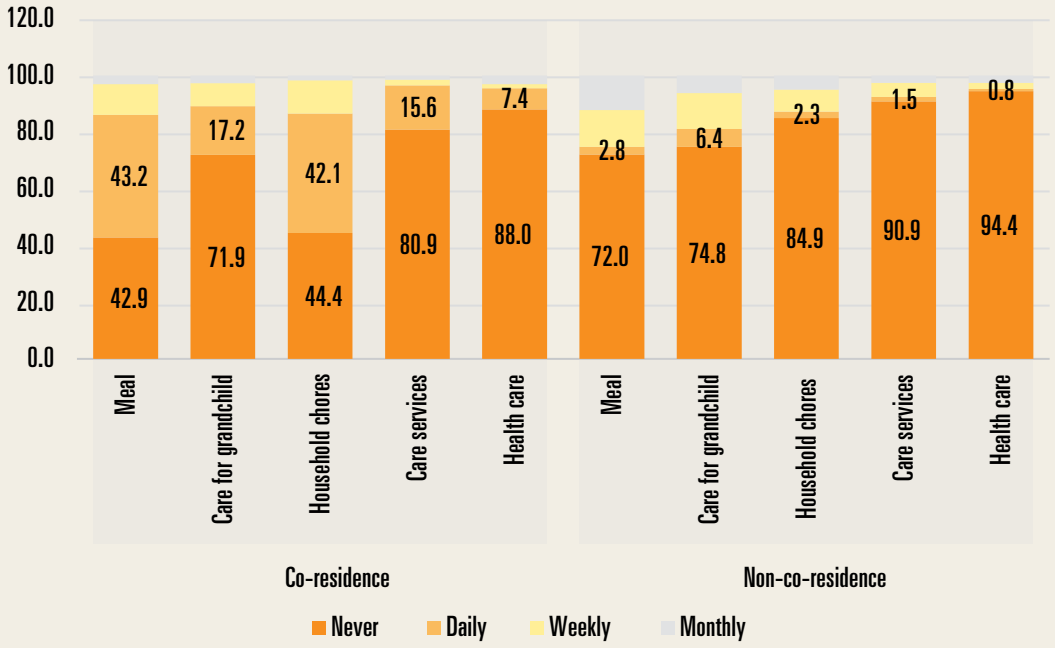


Figure 4.4-13: Types of support given to co-residing and non-co-residing children

Generally, comparing both support given and received, parents were mostly on the upper hand – i.e. more generally reported to give rather than to receive from their children, co-residing or otherwise. The most cited support received from co-residing children were meals and household chores, whereby about 70% respondents indicated to have received both support either on a daily, weekly or monthly basis. Between 12% and 20% reported to have received care services in the form of care for grandchildren, health care and other care. As for the non-co-residing children, almost a similar pattern was observed but with a less frequent interval – i.e. weekly and monthly basis instead of daily.

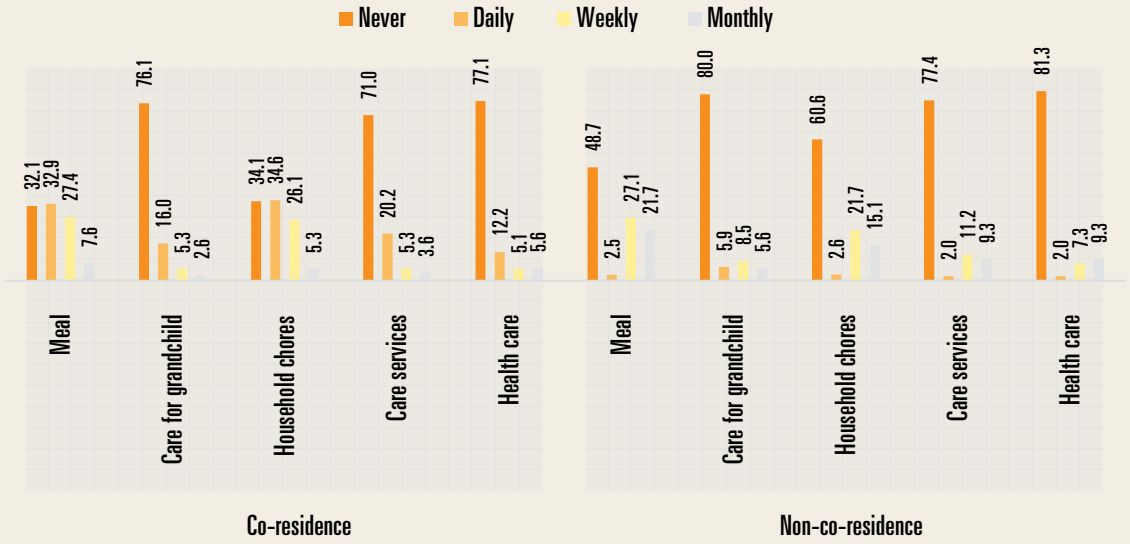


Figure 4.4-14: Types of support received from co-residing and non-co-residing children

In general, most male respondents never provided all types of support to either co- residing or non-co-residing children. However, compared to their non-co-residing children, about 30%, 26% and 15% male respondents provided household chores, meal and care for grandchildren respectively to co-residing children (Figure 4.4-15).

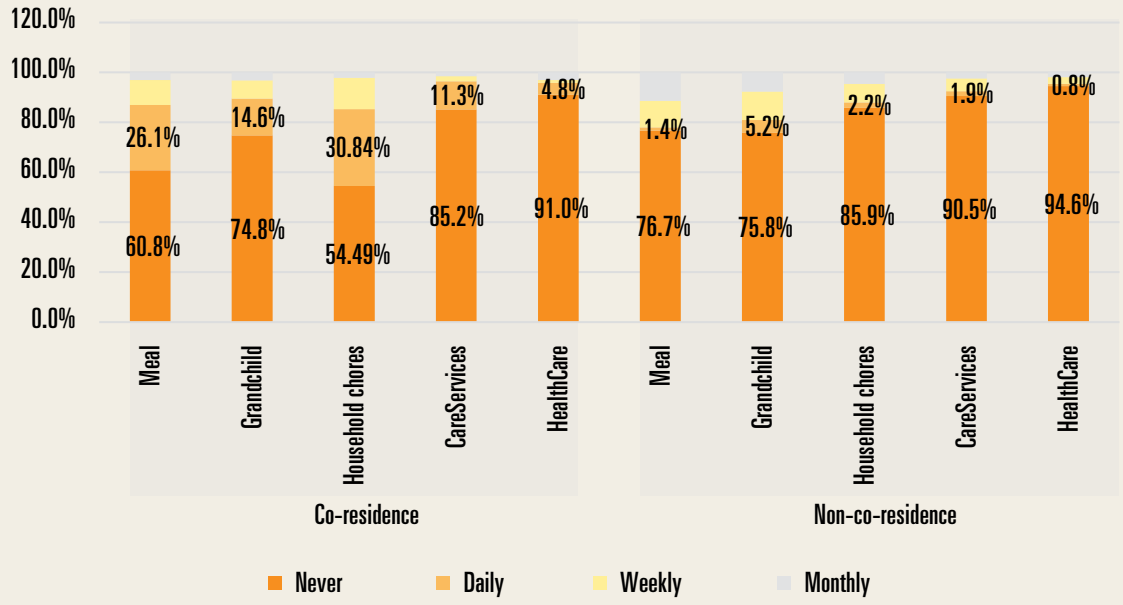


Figure 4.4-15: Types of support given by male to co-residing and non-co-residing children

Figure 4.4-16 shows that a higher percentage (between 10% and 66%) of female than male respondents, claimed that they provided support to their children especially those who lived with them on a daily basis. Specifically, 66% female cooked meals and 57% helped with household chores for their co-residing children. This support can help alleviate the burden of working children especially on working days. Apart from that, more female respondents claimed to have provided care (for grandchildren, others and taking family members to clinics etc.) especially to their co-residing adult children.

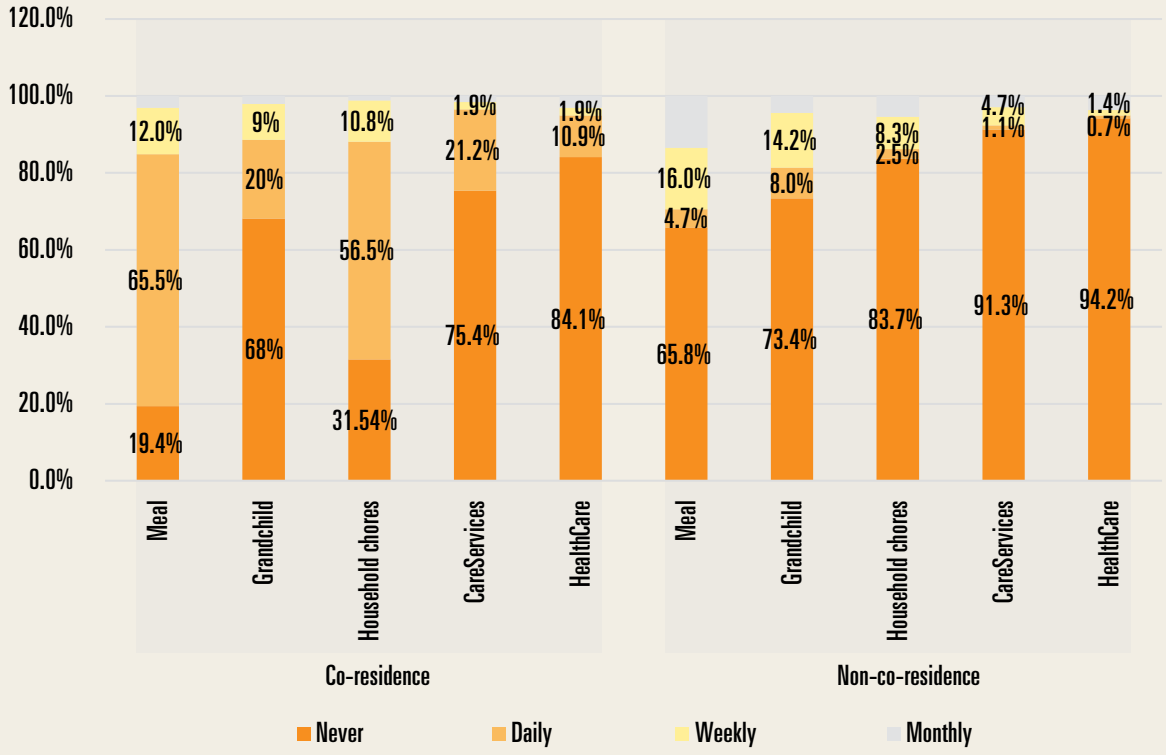


Figure 4.4-16: Types of support given by female to co-residing and non-co-residing children

Figure 4.4-17 indicates that about 34% and 25% male respondents received meals on a daily and weekly basis respectively from co-residing children. A similar pattern and percentage of inter generational support was evidenced in the provision of household chores to male respondents by co-residing children. For the non-co-residing children, about 30% of male respondents received support in the form of meal preparation weekly and monthly and almost 30% received help with chores from them. Similar inter generational support pattern was observed among female respondents for various types of assistance received from children (Figure 4.4-18).

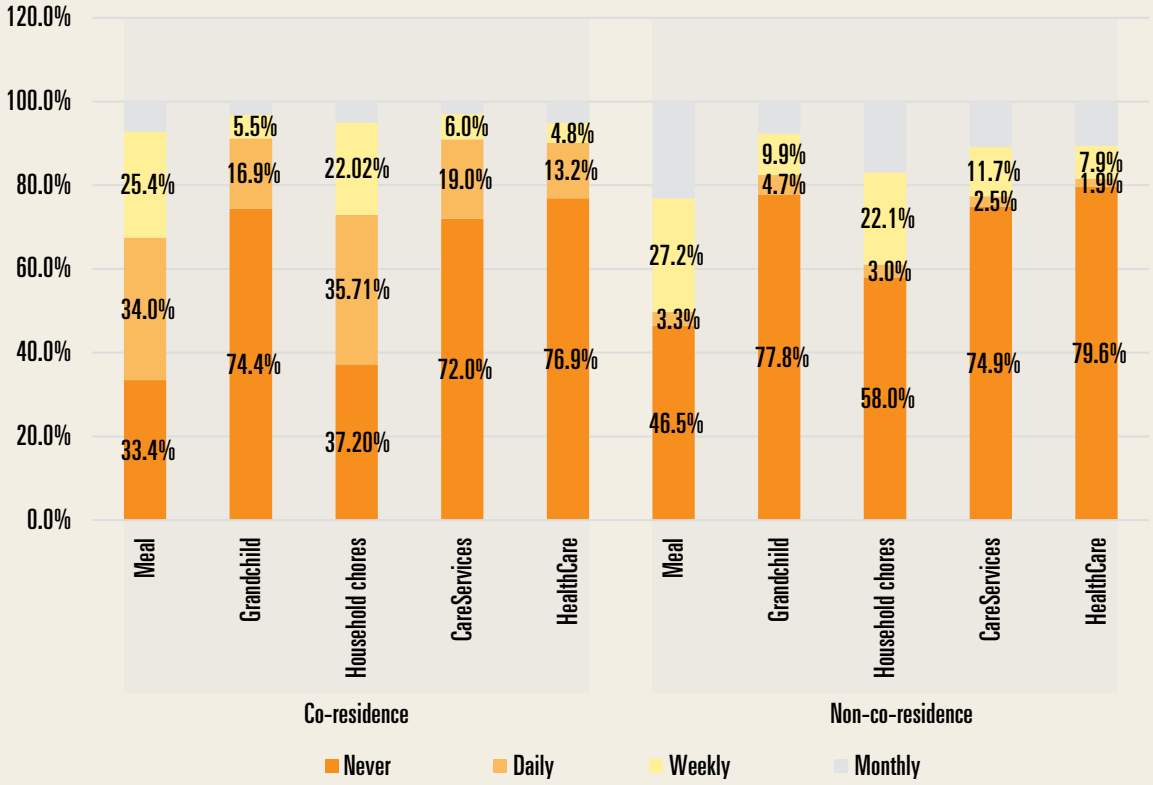


Figure 4.4-17: Types of support received by male from co-residing and non-co- residing children

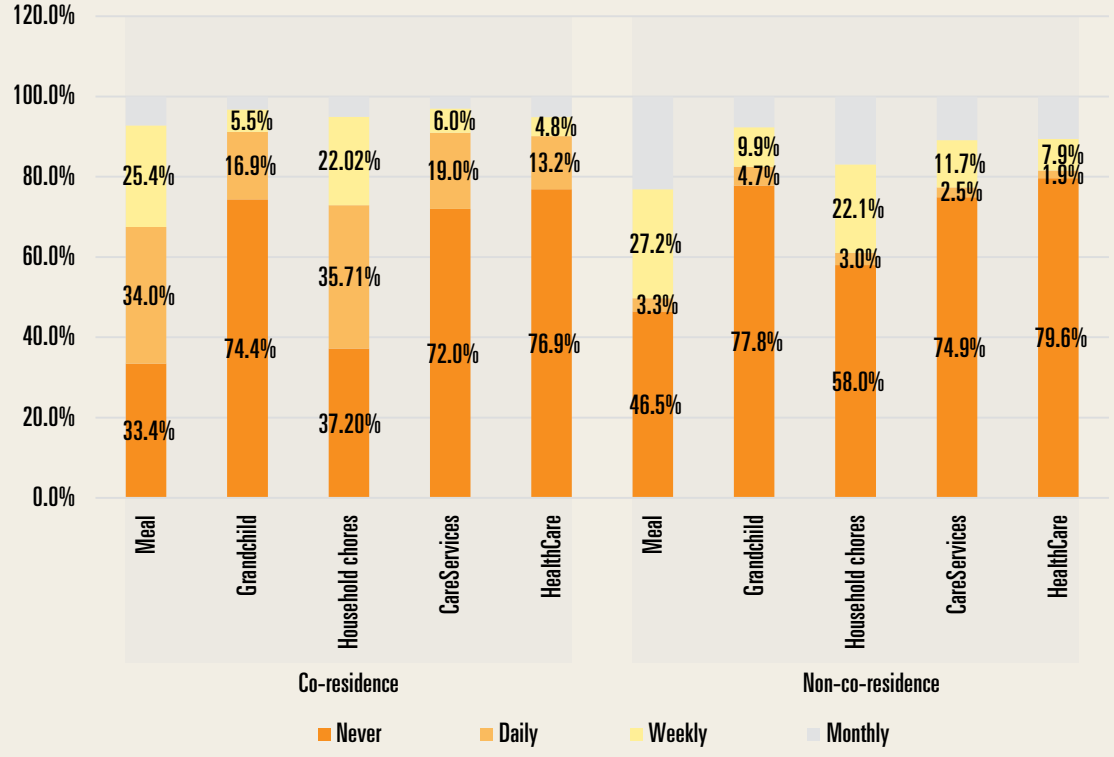


Figure 4.4-18: Types of support received by female from co-residing and non-co- residing children

Figure 4.4-19 (1) and Figure 4.4-19 (2) generally shows that the top two most exchanged support reported by respondents from different education attainments were meal preparation and household chores. Interestingly, among lower educated respondents, a higher percentage indicated that they received support in terms of meals and chores from co-residing children compared to those who reported to be giving support to their co-residing children.

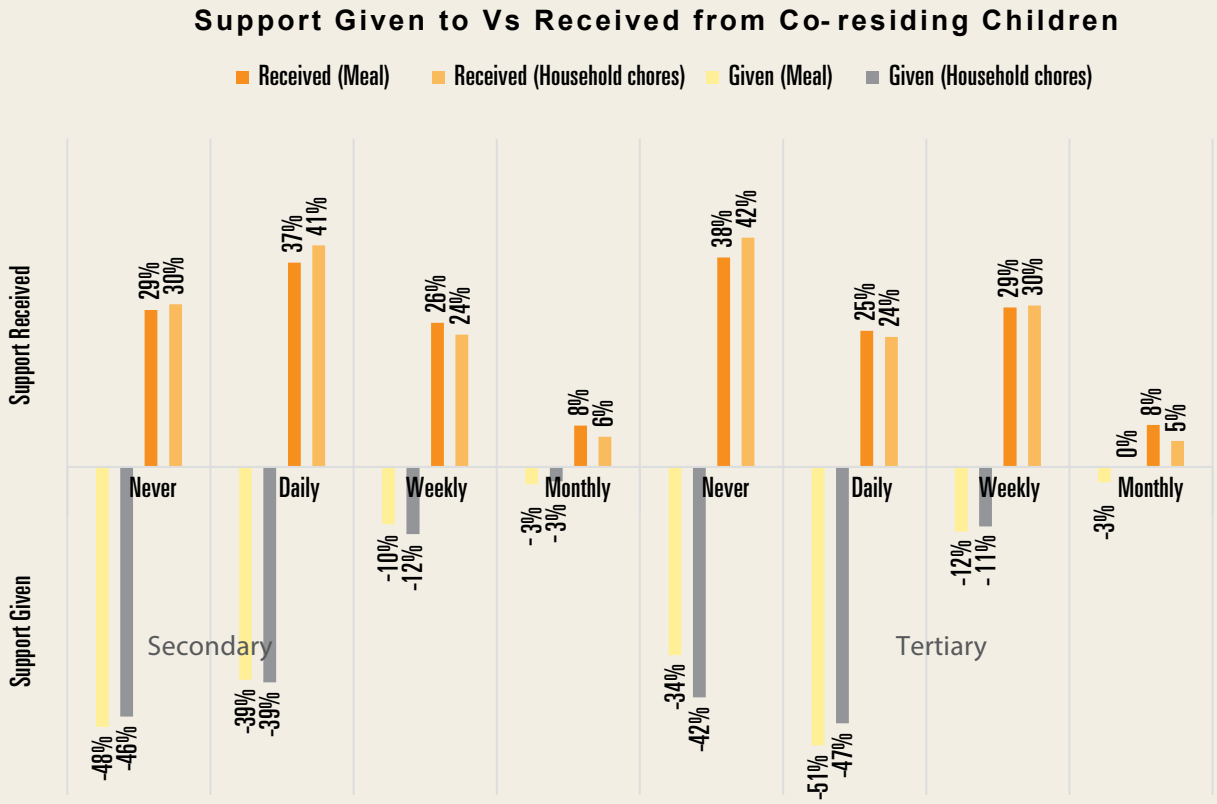


Figure 4.4-19 (1): Types of support received from co-residing and non-co-residing children by education attainment

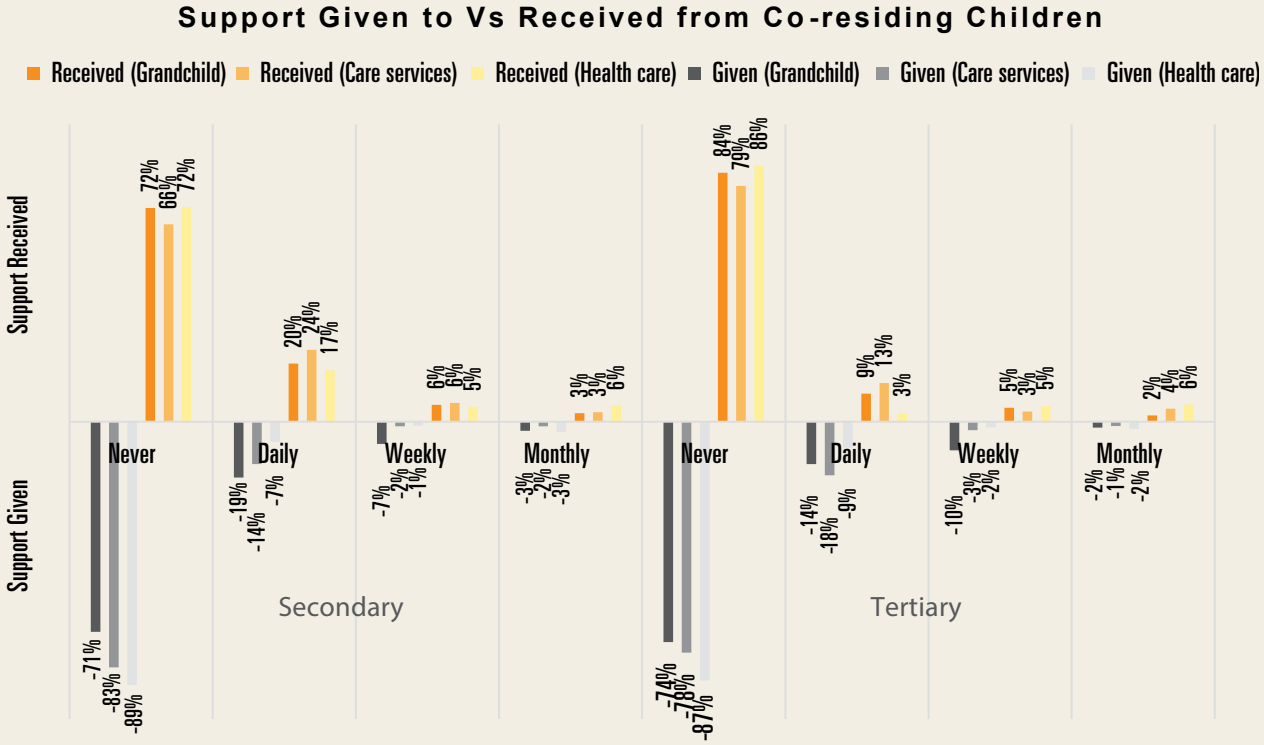


Figure 4.4-19 (2): Types of support received from co-residing and non-co-residing children by education attainment

Table 4.4-3 shows an interesting trend in intergenerational support between residing children and respondents. Generally, for co-residing children, as the length of retirement increased, the percentage of respondents reported giving support reduced, and the number of respondents who reported receiving such support increased especially for the following assistance: meal preparation, caring for children and help with household chores. Perhaps, it was also due to the compounding factor of ageing respondents.

Table 4.4-3: List of intergenerational support between parents and co-residing children

Items	Frequency	<3 years		4-10 years		11> years	
		Given	Received	Given	Received	Given	Received
Meal preparation	Never	33.91	32.95	45.50	32.99	47.51	30.63
	Daily	50.57	30.64	41.50	32.99	38.91	34.68
	Weekly	12.07	28.32	10.50	27.41	10.41	26.58
	Monthly	3.45	8.09	2.50	6.60	3.17	8.11
Taking care of grandchildren	Never	73.13	79.11	72.58	76.40	70.42	73.56
	Daily	16.88	12.66	16.67	16.85	17.84	17.79
	Weekly	8.13	6.33	9.14	3.93	7.51	5.77
	Monthly	1.88	1.90	1.61	2.81	4.23	2.88
Help in doing household chores	Never	40.91	36.00	44.16	33.16	47.51	33.33
	Daily	48.86	32.57	39.59	35.75	38.91	35.14
	Weekly	9.66	26.86	14.72	24.35	10.86	27.03
	Monthly	0.57	4.57	1.52	6.74	2.71	4.50
Care services	Never	76.14	69.71	83.92	76.29	81.98	67.27
	Daily	19.32	21.71	13.07	13.92	14.86	24.55
	Weekly	1.70	4.57	2.51	6.19	1.80	5.00
	Monthly	2.84	4.00	0.50	3.61	1.35	3.18
Assist in taking medication and health care	Never	85.14	76.70	92.39	82.47	86.43	72.73
	Daily	8.57	15.34	4.57	7.22	9.05	14.09
	Weekly	2.29	3.41	1.02	5.67	1.36	5.91
	Monthly	4.00	4.55	2.03	4.64	3.17	7.27

Table 4.4-4 indicates that, albeit a smaller percentage, intergenerational support also occurred between parents and non-co-residing children. In addition, a similar pattern of reduced percentage of giving and increased percentage of receiving were observed though it occurred at a less frequent interval such as on weekly or monthly basis.

Table 4.4-4: List of intergenerational support between parents and non-co-residing children

Items	Frequency	<3 years		4-10 years		11> years	
		Given	Received	Given	Received	Given	Received
Meal preparation	Never	73.30	54.86	70.81	51.20	72.20	42.41
	Daily	3.41	1.71	2.87	1.44	2.32	3.89
	Weekly	13.07	20.57	12.44	32.54	13.13	27.24
	Monthly	10.23	22.86	13.88	14.83	12.36	26.46
Taking care of grandchildren	Never	78.74	82.08	72.73	78.37	73.75	79.84
	Daily	5.17	4.62	3.83	6.73	9.27	6.20
	Weekly	13.22	7.51	14.35	9.62	10.81	8.14
	Monthly	2.87	5.78	9.09	5.29	6.18	5.81
Help in doing household chores	Never	87.43	66.48	84.29	61.35	83.78	55.98
	Daily	2.29	1.70	1.90	1.45	2.70	4.25
	Weekly	5.14	16.48	9.05	25.60	8.49	22.01
	Monthly	5.14	15.34	4.76	11.59	5.02	17.76
Care services	Never	92.05	79.43	92.38	79.81	88.85	74.13
	Daily	0.00	0.57	1.90	1.92	2.31	3.09
	Weekly	4.55	8.00	4.29	13.46	5.77	11.58
	Monthly	3.41	12.00	1.43	4.81	3.08	11.20
Assist in taking medication and health care	Never	93.75	82.39	96.19	84.62	93.46	77.99
	Daily	1.70	2.27	0.48	0.96	0.38	2.70
	Weekly	1.14	3.98	1.43	7.69	3.46	9.27
	Monthly	3.41	11.36	1.90	6.73	2.69	10.04

Older adults continued to make valuable contributions to society after they withdrew from the labour force. Post-retirement, only a small number of respondents were involved in income generating activities. However, they were generally involved in many activities, though mostly concentrated in own routine activities such as doing household chores, doing hobbies etc. In other words, they not only took care of themselves and enjoyed life, but seemed to be the mainstay of many families and households – provided assistance, performed caring tasks in their own home and that of their relatives and friends, caring for and assisting their family members, friends, and relatives. This is in line with previous literature that often shows, the help they provided allowed their children to continue working.

Maybe, the most important way older adults can contribute to their communities is through voluntary activities. Retirees have more free time than younger adults, and need to give something back by sharing their experiences, knowledge, skills, and talents. For many retirees, old age is a time to become deeply engaged in their religious affiliation bodies/organization, local politics, schools and cultural and community organizations. Many retired professionals also become more involved in professional associations, or mentor younger people who can benefit greatly from their years of experience and knowledge. However, the number of respondents involved in "giving back to the society" kind of activities such as teaching and volunteering was still small (about 23%). Thus, they may represent untapped talents that become a loss to the society and community. Their involvement and engagement in the family and society will not only benefit them but also families and communities have a lot to gain from them as well.

4.4.3 Valuation of Productive Activities

In order to calculate the economic contributions for the productive activities of the retirees as listed in Table 4.4-5, the market replacement rate (MRR) is utilized, which defines as the hourly market value of the closest (paid) activity to the (unpaid) productive activity undertaken by the person. Another rate was used which was based on the opportunity cost (OC) calculated based on the government minimum wage of RM1,000 per month and converted to RM6.25 per hour. The time spent for the (unpaid) productive activities could have earned the hourly minimum wage had a retiree decided to work instead. The activities, estimated rates per hour and sources are given as follows:

Table 4.4-5: Estimated value of activities using MRR

Activities	MRR (RM)	Sources*
Caring for children	3.00	Taska 1 Malaysia
Caring for grandchildren	3.00	Taska 1 Malaysia
Caring for parents/ in-laws	16.88	Local Elderly Centre/Home Nursing
Household chores	16.25	Local Maid Cleaning Agency
Gardening	16.25	Local Maid Cleaning Agency
Attending course, seminar or lifelong learning	10.00	Lifelong Learning Class
Teaching Al-Quran/ tuition	6.30	Local Al-Quran Centre
Activities by religious groups	5.00	Tahlil Rate at Local Surau
Helping neighbours/ friends with household chores	6.25	Minimum Wage
Volunteerism	6.25	Minimum Wage
Political activities	14.20	NGO
Income generating activity	6.25	Minimum Wage

Note: The calculation would differ if rates from different sources are used.

4.4.3.1 Economic Contributions (ECs)

The annual total for EC were calculated using MRR and OC methods using the following formulas:

EC (MRR) =52 × (1)× (3) × (4)
EC (OC) =52 × (2) × (3) × (4)

Where:
(1) = the estimated cost using MRR (Table 4.4-5)
(2) = the estimated cost using OC
(3) = the total number of retirees involved in each productive activity, calculated by multiplying the percentage of pre-retirees involved in each productive activity (Table 4.4-7)
(4) = the mean for total weekly hours spent on each productive activity listed was also obtained from our data sample (Table 4.4-7)

The proportion or percentage of older adults (3) involved in each productive activity was obtained from the data sample of 747 respondents (retirees) in Klang Valley. The mean for total weekly hours (4) spent on each productive activity listed was also obtained from our data sample. Table 4.4-6 shows the value of productive activities using MRR and OC calculation. The highest value contributed by respondents was on household chores followed by gardening. Female respondents had slightly higher contributions in care activities as well as household chores. In contrast male respondents had higher contribution in gardening activities, life-long learning, helping neighbours, volunteerism as well as income generating. In general, the overall economic contribution among female respondents was much higher compared to that of the males especially after taking into account doing household chores.

Looking at education attainment, the non-degree holder respondents tended to be involved in more activities and for a longer period. The value of the contribution of the non-degree holder group was much higher compared to the degree holder group except for teaching religious studies or the Al-Quran. There were also some differences in the value of productive activities by length of retirement. Overall, those who had retired for more than 11 years tended to have higher economic value as compared to those who had just retired.

The economic contribution of the retirees using the OC methodology was much lower compared to when using the MRR methodology. Non-degree holder group and female respondents contributed the most while those who retired less than three years contributed the least. The total economic contributions based on study samples using MRR was RM15 million and using OC was RM9 million.

Table 4.4-6: Estimated monetary value of retiree's productive activities by selected backgrounds using MRR and OC

Activities	Sex		Education attainment		Length of retirement		
	Male	Female	Non-degree	Degree	<3years	4-10 years	>11 years
MRR calculation based on study sample							
Caring for children	438,338	530,872	628,944	341,345	328,472	234,178	411,205
Caring for grandchildren	364,916	450,403	583,303	231,697	193,781	266,609	357,772
Caring for parents/ in-laws	536,936	546,244	557,116	525,049	380,903	484,844	231,905
Household chores	2,990,333	5,081,978	5,353,211	2,703,588	2,654,995	2,615,238	2,823,961
Gardening	1,158,323	736,870	1,145,529	749,829	618,730	565,555	718,133
Attending course, seminar or lifelong learning	180,919	157,040	178,369	159,722	89,870	146,251	103,830
Teaching Al-Quran/ tuition	76,840	52,319	60,278	69,330	27,980	47,895	54,296
Activities by religious groups	179,298	166,380	256,120	89,312	95,755	117,193	134,314
Helping neighbours/ friends with household chores	131,210	54,275	155,440	29,738	55,842	66,481	63,589
Volunteerism	206,193	80,655	151,646	134,309	77,831	102,601	108,591
Political activities	68,094	76,794	99,684	45,220	17,807	87,107	40,749
Income generating activity	536,227	143,325	436,475	240,412	200,898	227,742	250,641
OC calculation based on study sample							
Caring for children	913,204	1,105,983	1,310,300	711,136	684,317	487,871	856,677
Caring for grandchildren	760,241	938,340	1,215,214	482,703	403,710	555,436	745,359
Caring for parents/ in-laws	198,865	202,313	206,339	194,463	141,075	179,572	85,891
Household chores	1,150,128	1,954,607	2,058,927	1,039,842	1,021,152	1,005,861	1,086,139
Gardening	445,509	283,411	440,588	288,396	237,973	217,521	276,205
Attending course, seminar or life-long learning	113,074	98,150	111,481	99,826	56,169	91,407	64,893
Teaching Al-Quran/ tuition	76,230	51,904	59,800	68,780	27,758	47,514	53,865
Activities by religious groups	224,123	207,974	320,150	111,640	119,693	146,491	167,892
Helping neighbours/ friends with household chores	131,210	54,275	155,440	29,738	55,842	66,481	63,589
Volunteerism	206,193	80,655	151,646	134,309	77,831	102,601	108,591
Political activities	29,971	33,800	43,875	19,903	7,838	38,339	17,935
Income generating activity	536,227	143,325	436,475	240,412	200,898	227,742	250,641

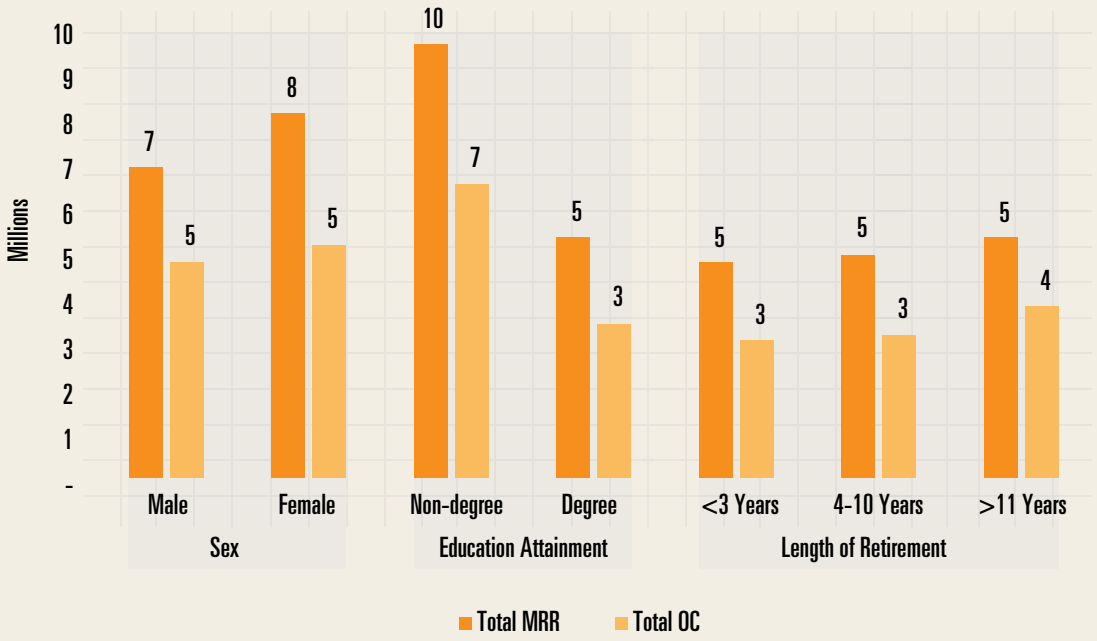


Figure 4.4-20: Total economic contribution (MRR and OC) of retirees' productive activities of study samples by selected backgrounds

Table 4.4-7 shows the value of ECs using MRR method was approximately RM11.7 billion whereas the value by way of OC was approximately RM10.3 billion.

Table 4.4-7: Estimated total economic contributions of retirees

Activities	% older adults (3)	No of older adults	Mean (Total weekly hours) (4)	Annual total MRR (RM)	Annual total OC (RM)
Caring for children	22%	101,207	38.31	604,851,825	1,260,107,969
Caring for grandchildren	29%	137,442	23.72	508,498,442	1,059,371,755
Caring for parents/ in-laws	4%	18,117	42.50	675,662,551	250,245,389
Household chores	83%	386,086	15.41	5,026,715,228	1,933,352,011
Gardening	40%	185,546	7.54	1,182,298,984	454,730,379
Attending course, seminar or lifelong learning	14%	63,098	6.42	210,786,326	131,741,454
Teaching Al-Quran/ tuition	8%	38,734	6.36	80,711,100	80,070,536
Activities by religious groups	37%	171,177	4.85	215,721,814	269,652,267
Helping neighbours/ friends with household chores	23%	109,329	3.25	115,632,389	115,632,389
Volunteerism	23%	106,205	5.18	178,897,040	178,897,040
Political activities	4%	18,117	6.76	90,415,639	39,795,616
Income generating activity	14%	63,098	20.61	422,566,927	422,566,927
Grand Total				11,690,299,919	10,325,803,128

4.4.3.2 Costs to the Government

The information sourced from KWAP (2017) indicated the total cost to the government that included pension, gratuity and Ganti Cuti Rehat (GCR) in Malaysia was approximately RM19.6 billion. The percentage of retirees in the Klang Valley area was approximately 69% which gave a total of approximately RM13.6 billion.

A more meaningful way of looking at the difference between the costs and contributions was by looking at the cost per person. The database obtained from PSD had the necessary information to assist the calculation of pension amount per person. The valuation of productive activities enabled us to measure the economic contributions of the retirees. This gave us an insight that despite the rising costs of pension (mainly) to the government due to reasons such as increasing life expectancy, low fertility rate and high dependency ratio, we could also look at ways in which the retirees were contributing back to the economy. The economic contributions from the younger ones were, of course higher than the older ones as shown in the calculations above. We could also observe that the economic contributions were mostly from the productive activities related to self or family rather than community. This pattern observed was similar to the case of pre-retirees.

Key Findings:

- Top three reasons by male respondents to continue working were: in need of money to support living; enjoy working/ running a business; and to engage in something meaningful.
- Top three reasons reported by female retirees were: doing something meaningful, to continue contributing to society and enjoy working/ running a business.
- Seventy percent of the respondents were not working because they wanted to rest.
- Five routine activities among respondents were watching TV or browsing the internet (92%), doing household chores (83%), reading (80%), exercising (63%) and gardening (40%).
- Respondents were also involved in caring for spouses (52%), religious groups (37%), caring for grandchildren (29%), caring for children (22%), doing chores for other households (23%) and volunteering (23%).
- Total estimated value of retirees' productive contribution: RM 11.7 billion (MRR) and RM 10.3 billion (OC).
- Estimated value for household chores: RM 5 billion (MRR) and RM 1.9 billion (OC).
- Estimated value for care: RM 1.7 billion (MRR) and RM 2.5 billion (OC).

4.5 Health and Self-Care

In 2012, the expenditure on health by the government was estimated at 4.01% of GDP, while in 2014, it increased to roughly 4.2% of GDP. As current and former government employees are provided with health care for life and life expectancy is also getting longer – i.e. older persons are expected to live up to 18 years after retirement, the economic burden of the government increases. This section consists of two main parts namely the health status of the retirees of our respondents and the valuation of health care cost of government.

4.5.1 Health Status

Analyses on the health status and utilization provided a scenario of the current retirees and later became a basis of cost valuation on health care borne by the government specific to their retirees. Perceived health status of the retirees is shown in Figure 4.5-1. Thirty percent of the respondents perceived their health as very good while more than half perceived their health as good. There were 2.1% of the respondents who perceived their health as poor and they comprised of among 5.5% of retirees aged 70 and older. None of those who recently retired perceived their health as poor. The percentage of those who perceived their health as poor increased with age and a higher percentage of male compared to female who perceived their health as poor.

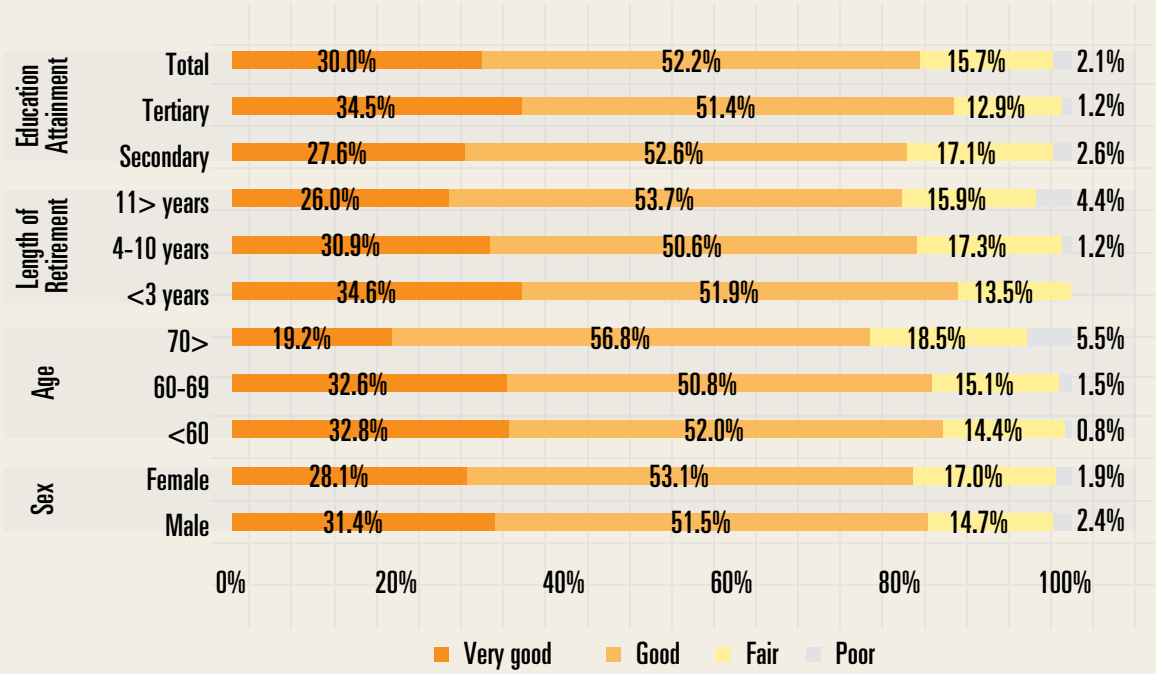


Figure 4.5-1: Perceived health status by selected background

Responses from 747 retirees on various diseases they suffered from were classified into different types. Figure 4.5-2 showed that, 28.82% of the total retirees interviewed had hypertension followed by 19.60% who was diagnosed with diabetes. Hypertension and diabetes were the most common diseases detected among retirees as patients with diabetes are more prone to be detected with hypertension. Diabetes is said to negatively affecting the arteries, which makes the patient vulnerable to atherosclerosis. Atherosclerosis is the narrowing of the arteries, which causes high blood pressure and if it is not treated, this can lead to further blood damage, stroke, heart failure, heart attack and kidney failure. Hyper cholesterol is another common disease diagnosed among the respondents. On the other hand, the diseases that are less common among the respondents were incontinence and tuberculosis.

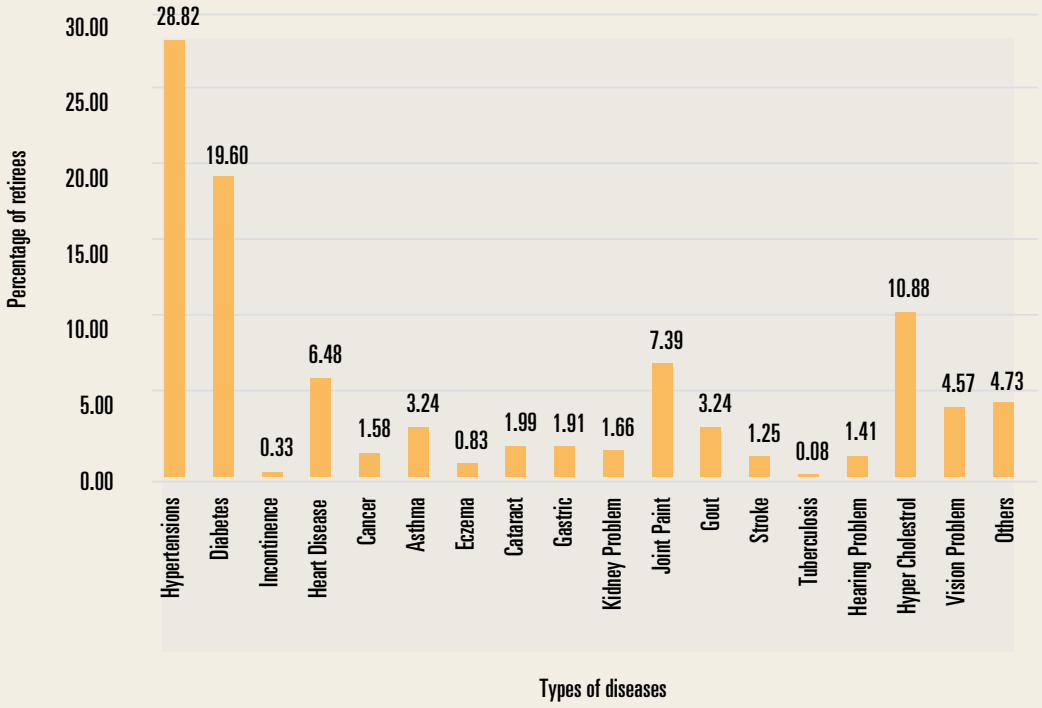


Figure 4.5-2: Percentage of retirees with diagnosed diseases

Table 4.5-1 shows the percentage of respondents who indicated they have diseases listed. As elaborated earlier hypertension seemed to be the most common disease among the retirees. More than half of those age 70 and above and had retired more than 11 years had hypertension. The trend was similar with diabetes and hyper cholesterol. A higher percentage of those in the older age group and retired for longer period of time had diabetes and hyper cholesterol. Data also shows that a higher percentage of male respondents had diabetes compared to female whereas a higher percentage of female reported having hyper cholesterol. Looking at other diseases, there were clear differences in percentage of those having the diseases by sex. A higher percentage of female respondents reported having cancer, cataract, gastric and joint pain compared to male. On the other hand, a higher percentage of male respondents reported having diabetic, heart disease, gout and hearing problem than female. As for age-related diseases the data shows that a higher percentage of those in the older age group had these diseases compared to the younger age group. Nevertheless, the younger age group were not free of such diseases.

Table 4.5-1: Percentage of respondents by diseases and selected background

Types of diseases	Sex		Age			Education attainment		Length of retirement		
	Male	Female	<60	60-69	70>	Secondary	Tertiary	<3 years	4-10 years	11> years
Hypertension	45.4%	47.8%	38.9%	44.4%	53.4%	46.5%	46.3%	38.9%	44.4%	53.4%
Diabetes	33.3%	29.3%	26.0%	28.0%	38.5%	32.5%	29.8%	26.0%	28.0%	38.5%
Incontinence	0.7%	0.3%	1.0%	0.0%	0.7%	0.0%	1.6%	1.0%	0.0%	0.7%
Heart disease	13.2%	6.8%	5.8%	9.1%	14.9%	9.8%	11.8%	5.8%	9.1%	14.9%
Cancer	0.7%	4.9%	1.9%	2.1%	3.4%	1.2%	5.1%	1.9%	2.1%	3.4%
Asthma	5.0%	5.6%	3.8%	3.7%	7.4%	5.3%	5.1%	3.8%	3.7%	7.4%
Eczema/ Psoriasis	1.2%	1.5%	1.4%	0.4%	2.0%	1.4%	1.2%	1.4%	0.4%	2.0%
Cataract	2.6%	4.0%	1.4%	0.8%	6.4%	4.1%	1.6%	1.4%	0.8%	6.4%
Gastric	2.4%	4.0%	3.8%	1.6%	3.7%	2.8%	3.5%	3.8%	1.6%	3.7%
Kidney problem	2.8%	2.5%	2.9%	2.1%	3.0%	2.6%	2.7%	2.9%	2.1%	3.0%
Joint pain/ arthritis	9.7%	14.8%	10.1%	8.2%	16.2%	11.2%	13.3%	10.1%	8.2%	16.2%
Gout	7.3%	2.5%	2.9%	4.9%	7.1%	5.3%	5.1%	2.9%	4.9%	7.1%
Stroke	1.9%	2.2%	0.0%	2.9%	2.7%	2.6%	0.8%	0.0%	2.9%	2.7%
Tuberculosis	0.2%	0.0%	0.0%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.3%
Hearing problem	2.8%	1.5%	0.0%	0.0%	5.7%	2.8%	1.2%	0.0%	0.0%	5.7%
Hyper cholesterol	16.5%	18.8%	13.5%	18.9%	19.3%	17.3%	18.0%	13.5%	18.9%	19.3%
Vision problem	7.6%	7.1%	4.3%	6.6%	10.1%	8.3%	5.5%	4.3%	6.6%	10.1%
Others diseases/ illness	6.4%	9.3%	3.4%	9.1%	9.5%	7.9%	7.1%	3.4%	9.1%	9.5%

These diseases were grouped into regular diseases (13 diseases) and age-related diseases (5 diseases) and the number of diseases reported by respondents were counted to provide a clear picture on the extent of health problems experienced by the retirees.

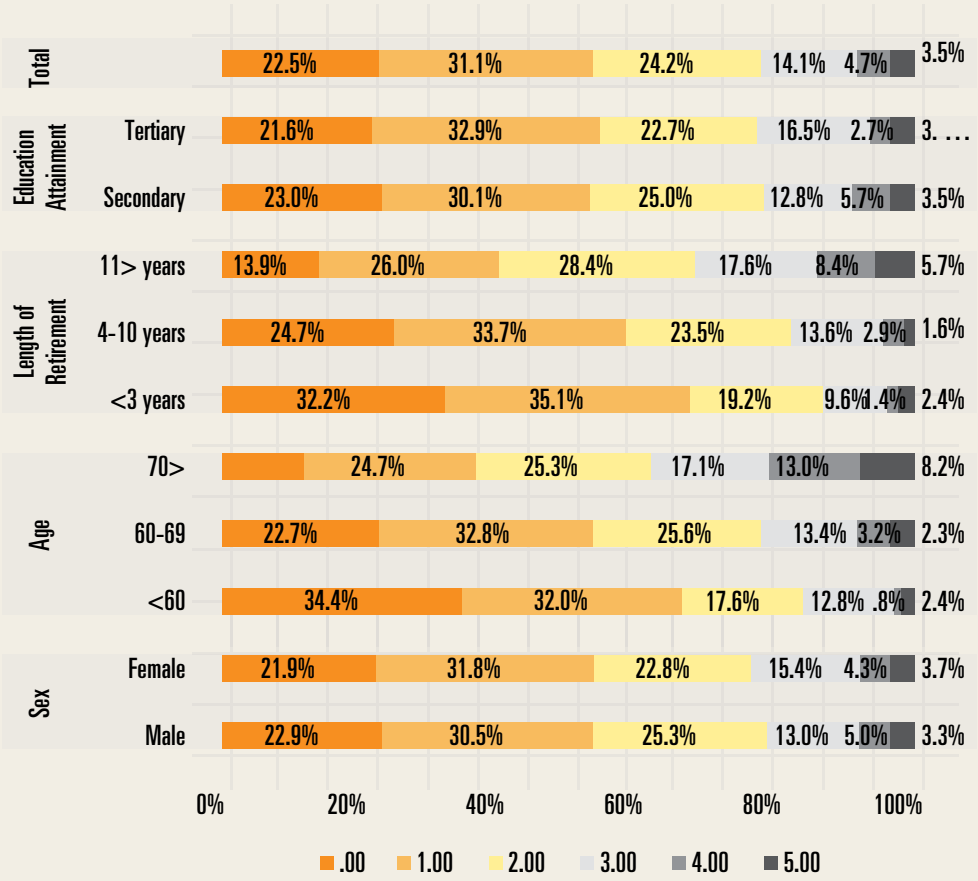


Figure 4.5-3: Percentage of respondents with number of regular diseases by selected background

Figure 4.5-4 shows the percentage of respondents by the number of regular diseases reported. There were 22.5% respondents who were healthy and had none of the regular diseases. The maximum number of diseases reported was seven and 31% had one disease followed by 24.2% with two and 14.1% had three diseases. Figure 4.5-4 shows the percentage of respondents by the number of age-related diseases and background. There were 80% respondents who reported that they had no age- related diseases. The youngest group, retired less than three years and male respondents had the highest percentage without age-related diseases. In contrast, the oldest group, those who had retired for more than 11 years, aged 70 and older tended to report more age-related diseases. Despite the fact that old age always associated with diseases, there are one out of five retirees who are healthy. This indicates that one can grow old without any diseases. Prevention and healthy lifestyle can contribute to disease-free old age.

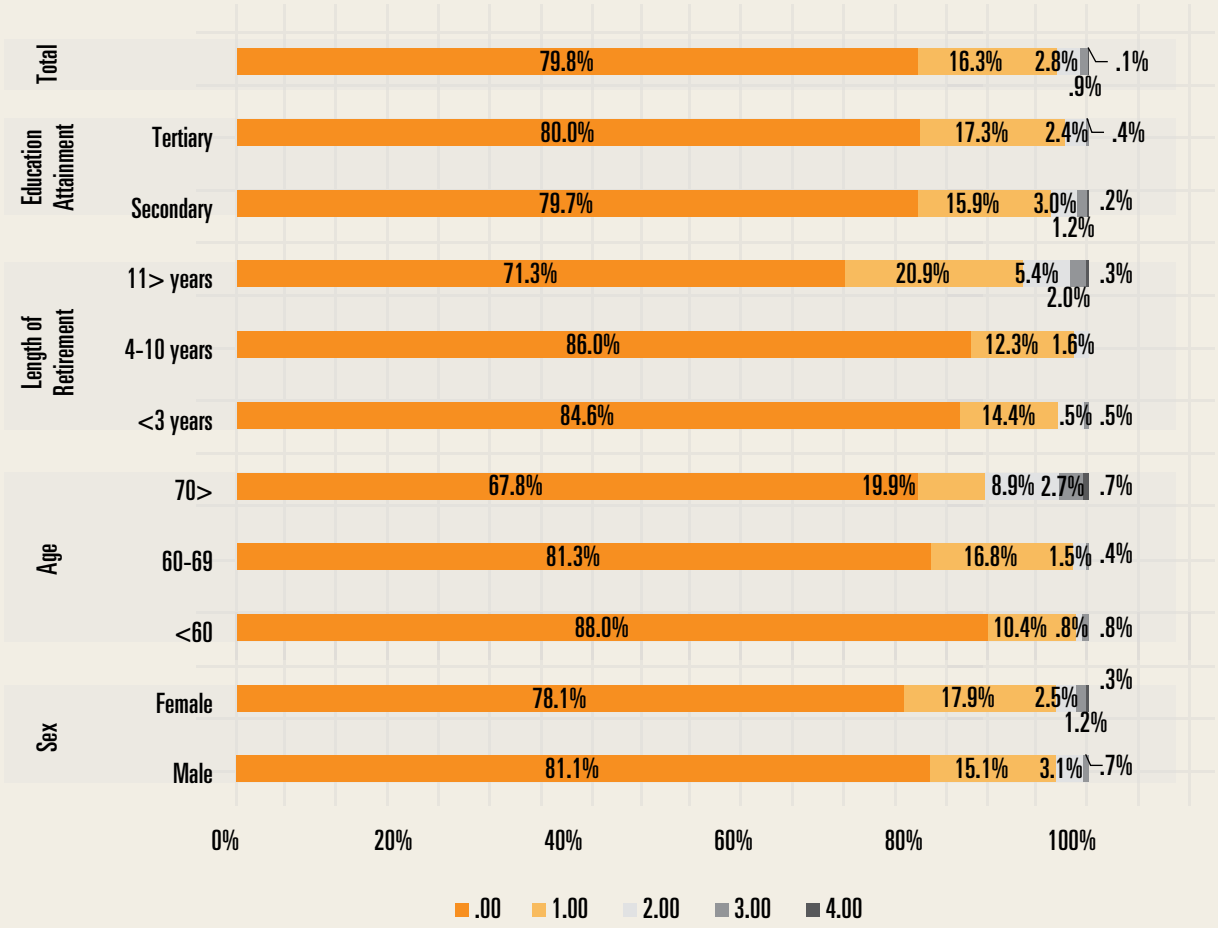


Figure 4.5-4: Percentage of respondents with number of age-related diseases and selected background

4.5.2 Health Care Utilization

Generally, most retirees sought treatment from government clinics and hospitals. Figure 4.5-5 shows the percentage of respondents with mean number of outpatient visits to government facilities within the last six months. There were 48.2% respondents who reported visits to government clinics in the last six months, while 41.1% respondents sought treatment in government hospitals. As compared to government clinics, only 17.4% visited private clinics in the last six months. There were a small number of respondents who used other types of medical facilities, namely seeking alternative medicine (3.3%) and traditional healers (4.0%).

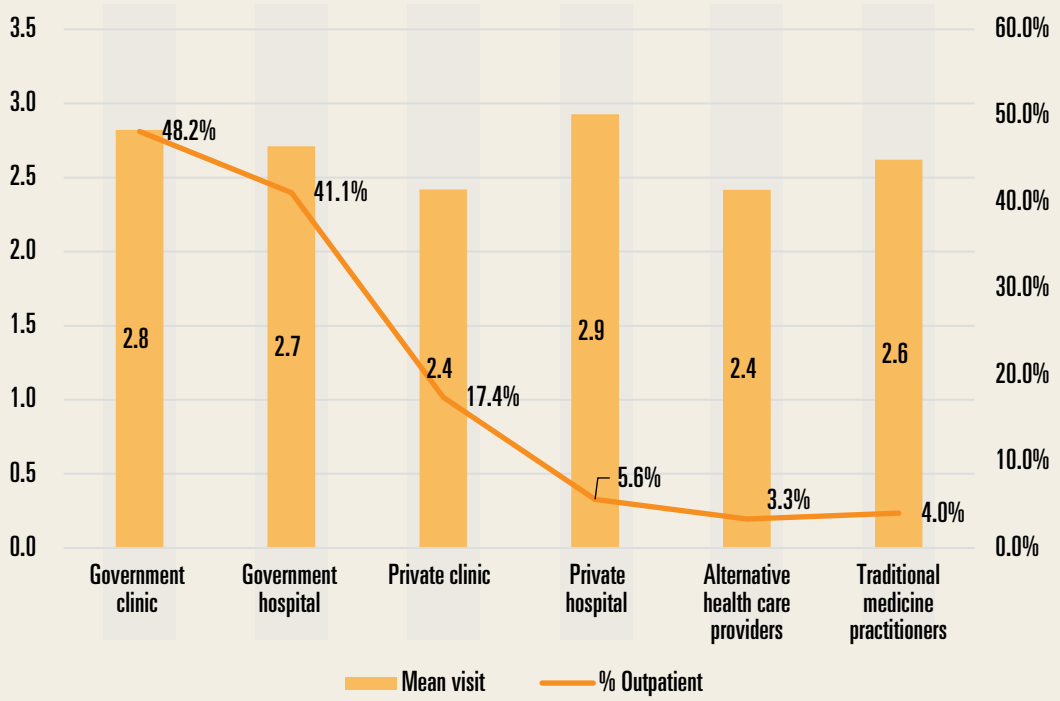


Figure 4.5-5: Health service utilization (Outpatient)

There were 22.3% respondents who reported to visit government clinics once in the last six months, 35.5% visited the same facility twice, while 31.9% and 28.9% of respondents with similar number of visits sought treatment in government hospitals. As compared to government clinics, only 45.7% respondents out of 17.4% who visited private clinics, visited the facility once and 27.1% visited private clinics twice in the last six months (Figure 4.5-6).

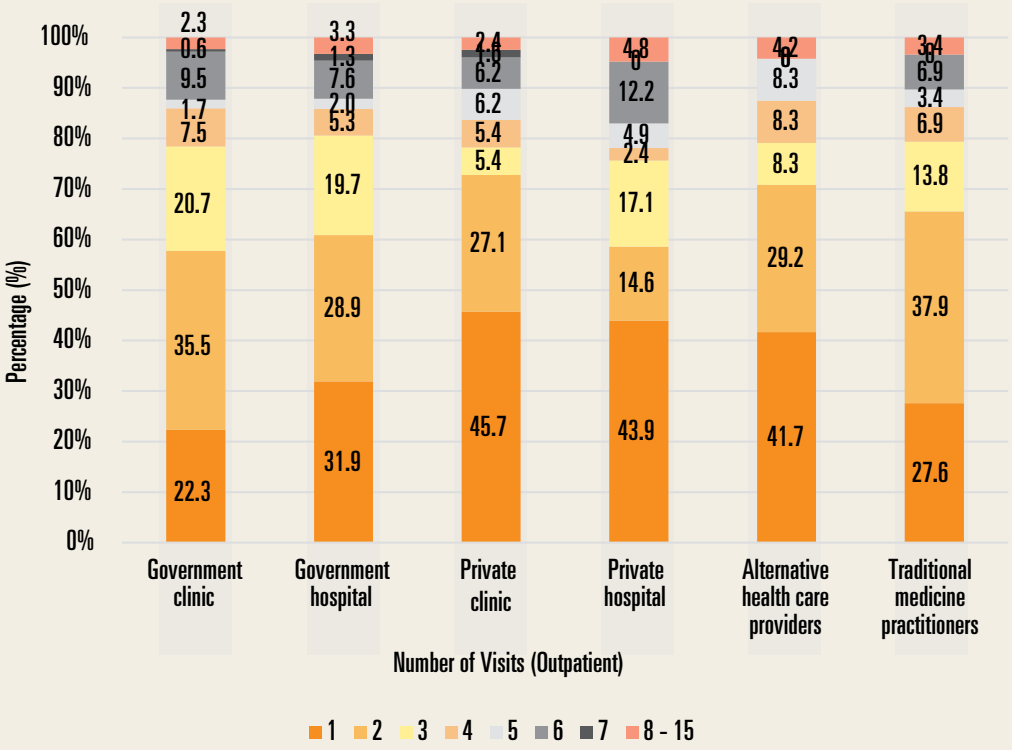


Figure 4.5-6: Health service utilization (Recurrence of visits)

Figure 4.5-7 shows the number of admissions for inpatient treatment in government hospitals, private hospitals and alternative health care centres. In general, retirees relied on government hospitals for inpatient treatment compared to private hospitals. In the period of six months, 10.4% of the respondents reported admission to government hospital facilities and only 2.9% were treated in private hospitals. The highest frequency of admission for inpatient care was seven times, but majority of those who sought inpatient treatment reported to have been admitted once or twice in the duration of six months (Figure 4.5-8). Utilization of inpatient health service is low indicating that their diseases are under control. Less demand for inpatient service thus less financial burden to the government.

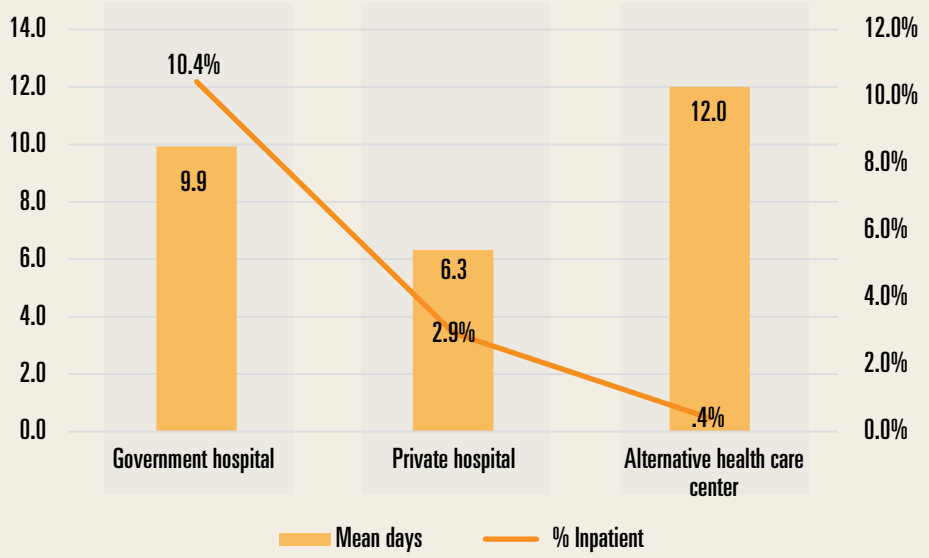


Figure 4.5-7: Health service utilization (Inpatient)

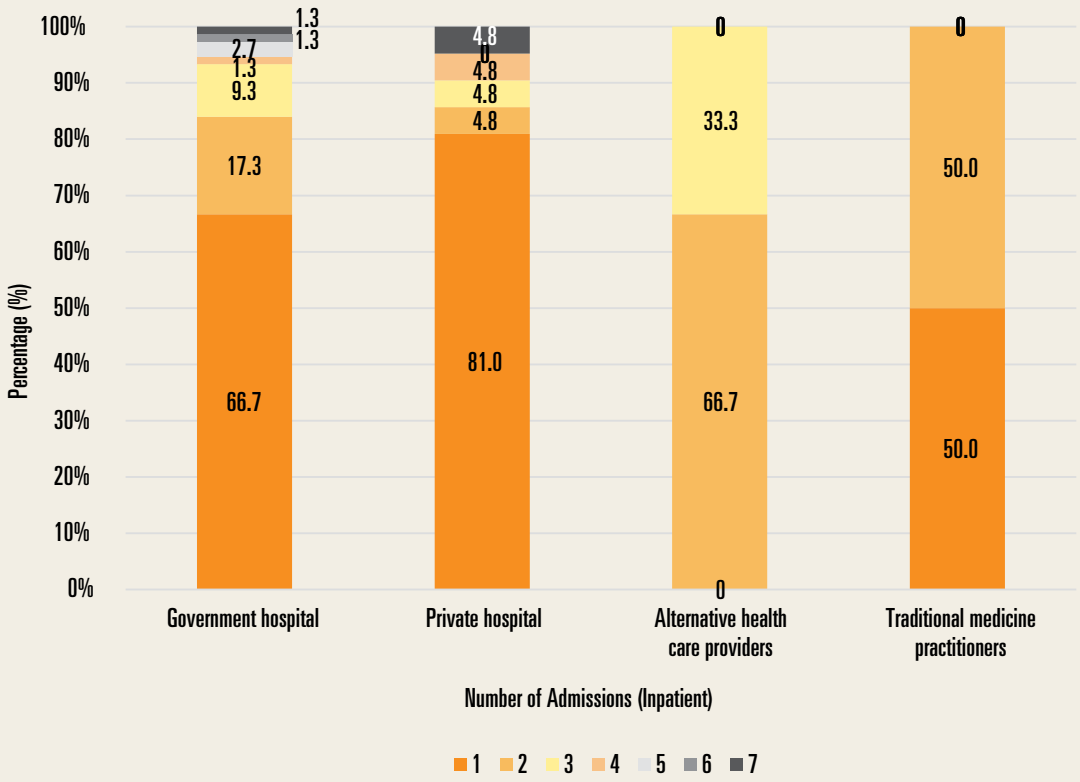


Figure 4.5-8: Health service utilization (Recurrence of admissions)

4.5.3 Self-care

Among the 747 retirees, 93% had no physical disabilities. Figure 4.5-9 shows the percentage of those with physical disability by different background. For those with disabilities, common physical disabilities mentioned were knee problem, difficulties in walking, wheel chair bound, joint pain and vision problems. As expected, a higher percentage of those 70 and above indicated they had physical disability compared to their younger counterparts.

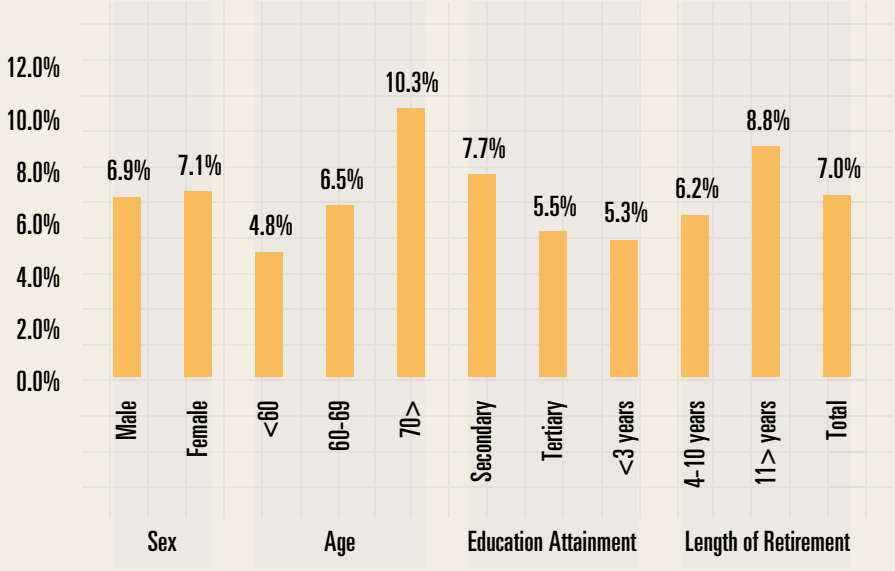


Figure 4.5-9: Percentage of respondents with physical disabilities

In addition to physical disability, respondents were also asked if they experienced a fall in the last six months. The percentage of respondents who fell by selected background is shown in Figure 4.5-10. Less than 10% of the respondents experienced a fall in the last six months. Among those who had a fall, a majority fell once in the last six months. A small percentage fell more than once and the oldest group experienced falls more often than any other group.

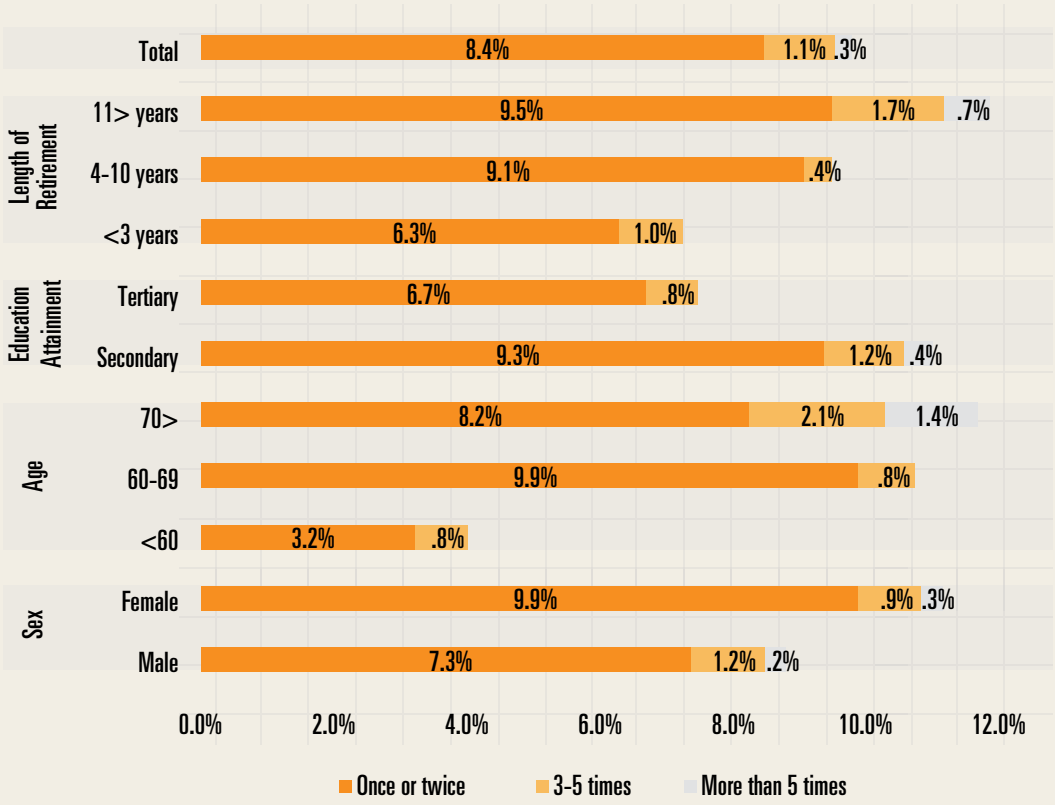


Figure 4.5-10: Number of reported falls and injuries

Taking supplements may help boost one's health, hence it is relevant to instil self-care behaviours among retirees. About 41% reported to have taken food supplements while 59% reported otherwise. For those who reported their expenditure on food supplement, 9.6% spent about RM100 per month; 6.3% spent about RM200 monthly and 4.3% spent an estimated amount of RM50 monthly. Only 0.3% had the highest monthly expenditure on food supplement at RM1,500.00. The average estimated monthly expenses for supplement per respondents was RM190.66. Mean expenditure on supplement by selected background is shown in Figure 4.5-11. The highest percentage who spent on supplement was female respondents and the highest mean spending on supplement was those who retired more than 11 years. The younger age group (less than 60 years old) reported spending the least on supplement.

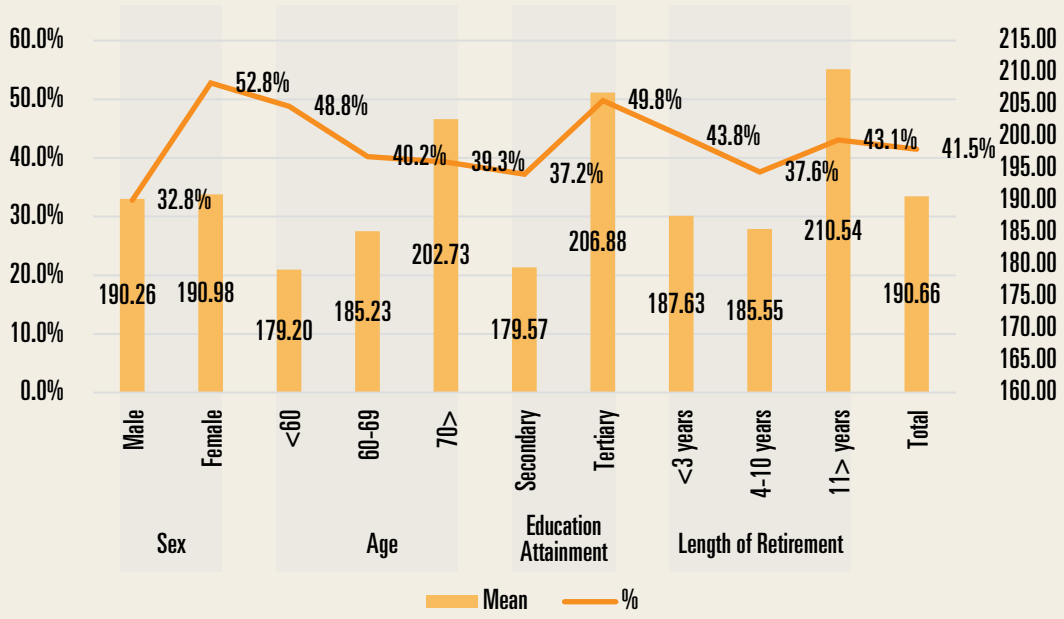


Figure 4.5-11: Percentage who spent and estimated monthly expenditure on supplement

Similar questions were asked to pre-retirees on self-care were used for the retirees. The response to the 10-item self-care is shown in Figure 4.5-12. Healthy habits of retirees will positively influence their health status and enhance their well-being. There were 58.8% of the respondents reported to have been able to maintain at least six hours of sleep each night while only 1.7% failed to do so. A total of 78.8% respondents reported that they often or always practised healthy eating habits and more than 80% took their medication regularly as prescribed by the doctors, while only 2.3% never did as instructed. With regards to managing emotion and stress, 35.7% and 50.3% of the respondents often and always changed the thoughts in order to deal with negative emotions respectively. There were 0.3% respondents who did not share their stress with anyone while 74.3% retirees often or always do so.

The figure also shows in terms of personal reflection and spiritual activity, it recorded the highest percentage who engaged in this activity. A total of 65.1% respondents were always involved in spiritual activity, 27.1% often devoted themselves in spiritual activity while only 0.4% was passively devoting themselves in spiritual activities. Since the majority had families, the data shows that 60.3% of the respondents always spent their time with families and friends but a minority of 0.1% never spent time with their families and friends. A total of 77.1% respondents would often open up their feeling and concerns with people who were close to them. In general, retirees in the study were independent and rather active. There were 70% respondents who stayed active in leisure activities regardless of their workload and 85% were still very health conscious as they did health screening as recommended.

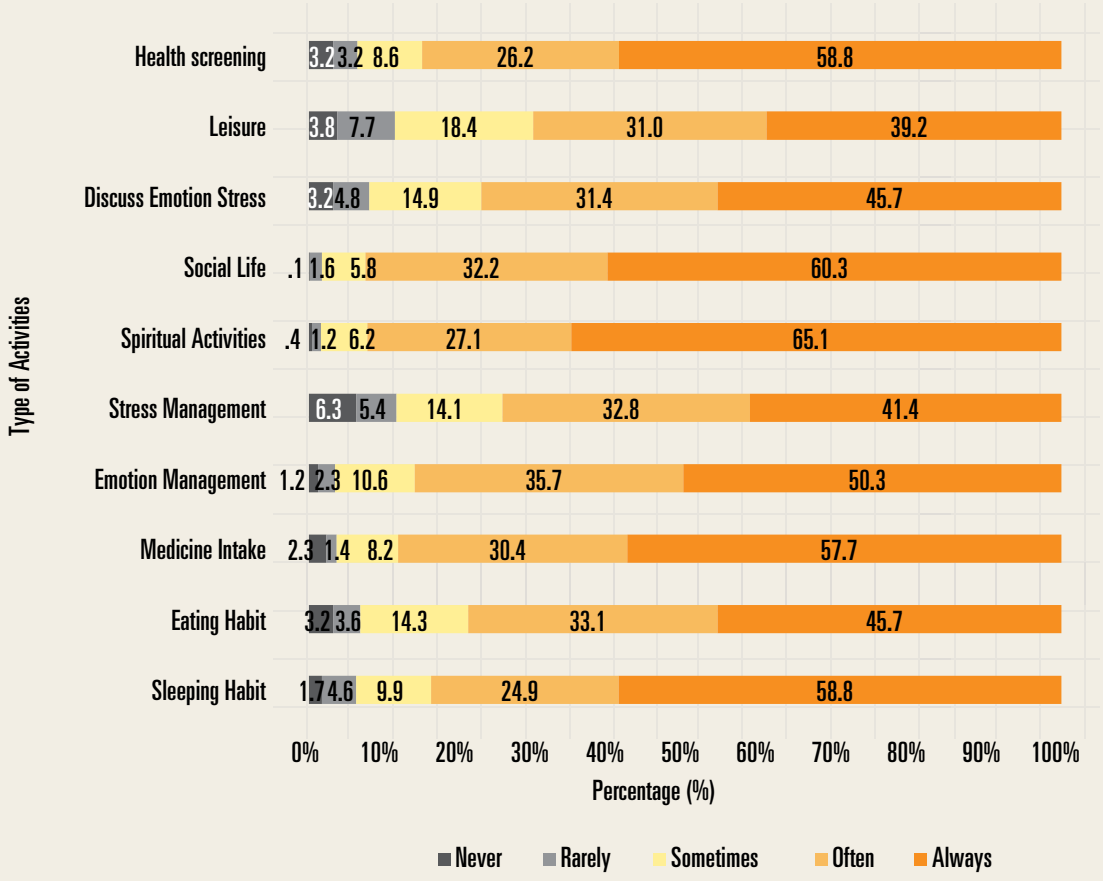


Figure 4.5-12: Involvement in activities

To get an overall picture about the level of self-care, self-care score was computed and further grouped into two groups. Assuming that self-care requires individual to often or always practice all the ten practices, those scoring below 40 was grouped as low self-care and those scoring 40 and higher grouped as high self-care. Figure 4.5-13 shows the level of self-care by selected background. There were 70.6% respondents with high self-care and the highest percentage was among those in the age group of 60 to 69. There were 38.9% respondents aged 70 and older in the low self-care group. This is in line with diseases they had and the physical disabilities experienced by this group. In addition, there were more than 30% males, age less than 60, with tertiary education and those who retired more than 11 years in the low self-care group. It is noted that there are retirees with some physical disabilities, as such that there is a need to develop and promote self-care modules for elderly with physical disabilities.

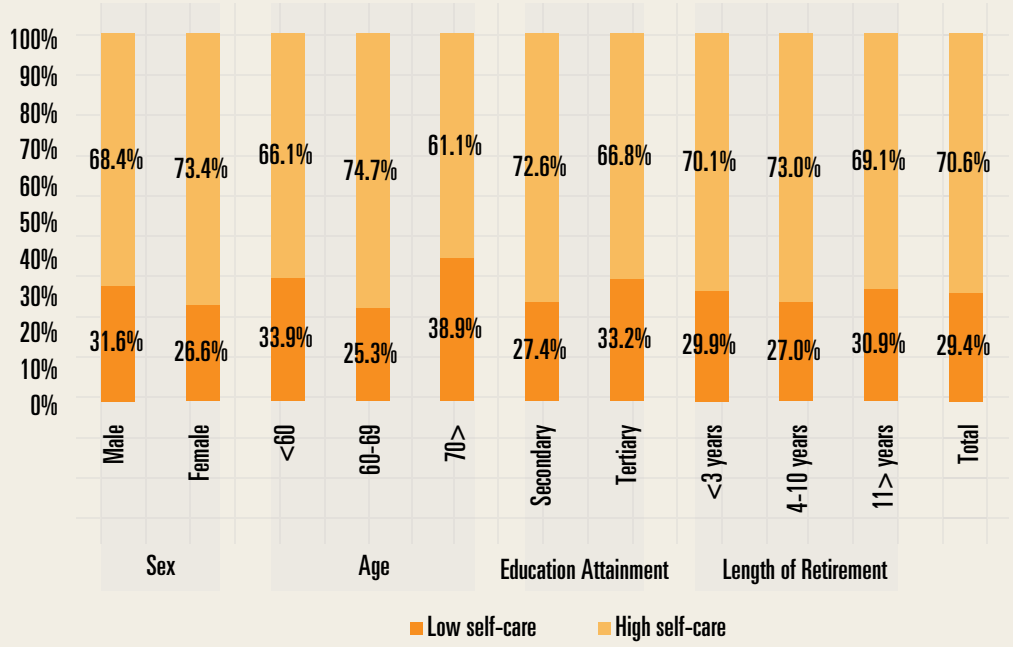


Figure 4.5-13: Level of self-care by selected background

4.5.4 Health Care Cost

The health care cost for 747 retirees were calculated using the data gathered. Table 4.5-2 shows the calculation of health care cost based on the number of visits. All the calculation for retirees by way of health utilization were estimated using only the outpatient visits. The justifications for such decision were as follows: (i) due to the availability of relevant data; (ii) simplify the cost estimation as inpatient rate varied according to wards, diseases and method of treatment received. The total number of respondents who visited government clinics and government hospitals in the past six months were 358 and 304 respectively. The total visits made by respondents to the two service providers in six months were 1,010 and 824 respectively. Similar source was used with pre-retirees for estimation of the health care cost. The estimated treatment rate was RM60 for both government facilities. Therefore, the estimated total government cost for government clinics for one year was RM121,200 (1,010 X 2 X RM60) for the past six months. On the other hand, the estimated total government cost for government hospitals was RM98,880 (824 X 2 X RM60) in a year.

Table 4.5-2: Cost of health care services incurred by the government

Health facilities	n	No. of visits	Estimation cost/ visit	Total cost/ six months (RM)	Total cost per year (RM)
Government clinics	358	1,010	60	60,600	121,200.00
Government hospitals	304	824	60	49,440	98,880.00

About 15% of respondents chose to receive treatment from private clinics and 5% chose private hospitals. The total visits reported were 312 and 120 respectively. The treatment fee charged at private clinics was RM70 and RM90 at private hospitals. Therefore, the total cost of treatment in private clinics was RM21,840 (312 X RM70) for the past six months and RM43,680 (2 X RM21,840) for one year. As for private hospitals, the total treatment cost was RM10,800 (120 X RM90) in the past six months and RM21,600 (2 X RM10,800) for one year.

Respondents also used other methods of treatment such as alternative health care providers and traditional medicine practitioners. Alternative medicine healthcare providers usually charged the most expensive, still, there were 24 respondents who used their medical services. The calculated cost borne by the government themselves is shown in Figure 4.5-14.

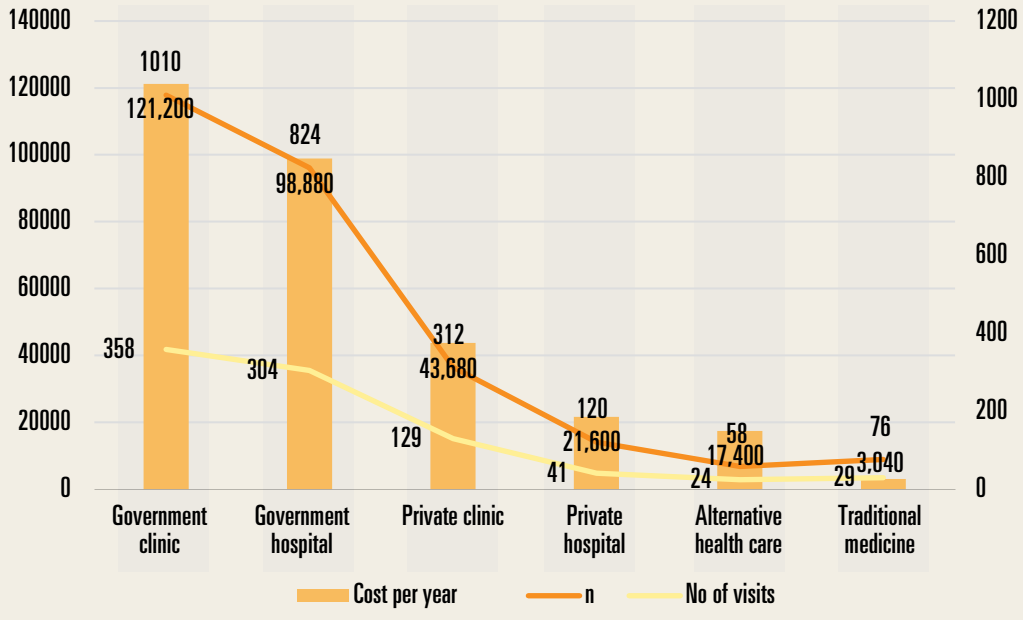


Figure 4.5-14: Health care costs (Number of visits)

The estimated costs of treatment for hypertension, diabetes, heart diseases and hyper cholesterol among retirees were calculated. Assuming the patients with diseases required to receive treatment at least once a month, each will have to have a total of 12 visits a year. The cost of treatment differed based on type of diseases and the estimated cost for each disease is shown in Table 4.5-3.

Table 4.5-3: Estimated cost per visit and total cost per year by type of disease

Type of disease	Estimated cost per visit (RM)	Sources*	No. of retirees with disease	Cost per person per year (RM)	Total cost per year (RM)
Hypertension	20.25	Alefan et. al (2009)	347	243.00	84,321.00
Diabetes	229.20	iMoney.my[10]	236	2,750.40	649,094.40
Heart disease	77.00	Patient's Hospital Bill[11]	78	924.00	72,072.00
Hyper cholesterol	105.00	Patient's Hospital Bill[12]	131	1,260.00	165,060.00

*Note: Referred sources of which the value for each disease was used as the basis for the calculation.

Hypertension treatment cost was RM20.25 per visit. Therefore, an estimated cost for hypertensions per person per year was RM243 (12 X RM20.25). There were 347 retirees with hypertension, resulting an estimated total cost of RM84,321 (347 X RM243) per year for government.

The cost of treatment for diabetes was RM229.20 per visit, thus, an average cost of RM2,750.40 (12 X RM229.20) per person per visit in a year was generated by government. There were 236 retirees with diabetic, resulting an estimated total cost of RM649,094.40 (236 X RM2,750.40) per year for the government.

The cost of treatment for heart disease and hyper cholesterol was RM77 and RM105 respectively. The estimated total government cost was RM924 (12 X RM77) for heart diseases and RM1,260 (12 X RM105) for hyper cholesterol per person in a year. The number of respondents with heart diseases and hyper cholesterol were 78 and 131 respectively. Hence, the total yearly cost was RM72,072.00 for heart disease and RM165,060.00 for hyper cholesterol. These are lifelong diseases that require effective management by individuals to lessen the health care cost burden. They should get access to affordable medical assistive for better self-management of the diseases.

10 https://www.google.com.my/amp/s/www.imoney.my/articles/heres-much-costs-treat-diabetes/amp (See Appendix 5)
11 See Appendix6
12 See Appendix6

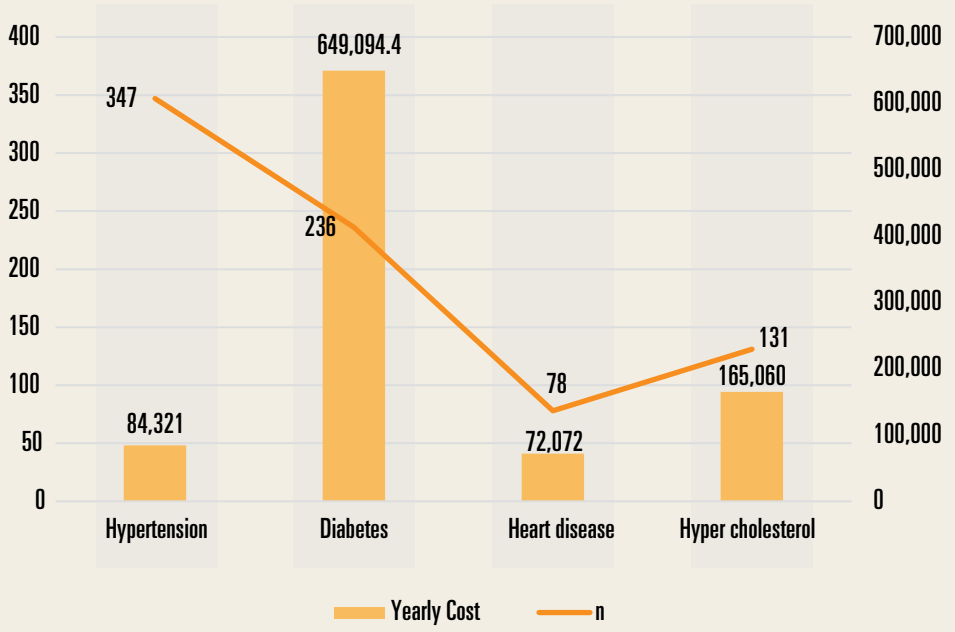


Figure 4.5-15: Yearly health care costs by diseases

Key Findings:

- Thirty percent of the retirees perceived their health were very good while more than half perceived their health as good.
- The retirees have NCDs (i.e.: hypertension-46.5%, diabetes-31.6%, hyper cholesterol-17.5%) and also other age related diseases such as joint pain and vision problem.
- Only 22.5% retirees had no disease.
- There were 48.2% retirees who visited government clinics and 41.1% visited government hospitals in the last six months.
- Seven percent respondents had physical disabilities namely knee problem, difficulties in walking, wheel chair bound, joint pain and vision problems.
- Forty one percent respondents took food supplements.
- Seventy percent of respondents practiced high self-care and the highest percentage was among those in the age group of 60 to 69.
- The cost of diabetic treatment borne by the government was the highest compared to other diseases.

4.6 Well-being

Well-being is defined as an overall evaluation in all important aspects of life. This chapter discusses the retirees' current state of well-being by using the Lawton Instrumental Activities of Daily Living Scale (IADL), The 12-Item Short Form Health Survey (SF-12) and perceived life satisfaction.

4.6.1 Activities of Daily Living

Functional status can be conceptualized as the ability to perform self-care, self-maintenance and physical activity. Normal aging changes and health problems are often reflected in declines in the physical abilities of the elderly, which can render them less independent, less safe and can make daily tasks much harder for them. One of the methods to evaluate the physical health status of older adults is through functional assessment which provides data that may indicate decline or improvement in health, allowing the healthcare provider to intervene. Functional assessment in this report is measured using the Lawton IADL scale. It is an appropriate instrument to assess independent living skills (Lawton & Brody, 1969) which provides self-reported information about functional skills necessary to live in the community.

There are eight domains of function assessed with the Lawton IADL scale. A summary score which ranges from 0 (low function, dependent) to 8 (high function, independent). The scale has a good internal consistency, Cronbach's alpha = 0.803. Analysis was carried out among respondents aged 65 and above only (n=335). Mean score is 6.69 (SD = 1.56), which indicated that the respondents were able to perform more than half of the IADL tasks.

Scores of self-reported functional ability are as shown in Figure 4.6-1. Results indicated that education attainment explains heterogeneity in the level of cognitive abilities. Different types of knowledge and skills may be required in performing different IADL tasks. As such, respondents who obtained tertiary education scored better. A majority (46.3%) had perfect score of eight.

Age-related declines are exhibited in many aspects of cognitive ability. The younger respondents who had just retired had better score compared to the others. Half of them (50%) scored 8. On the other hand, 38.7% (four to ten years) and 30.5% (11 years and above) were highly function/ independent.

In terms of sex, a better score was observed among female respondents (41.2%). Only 29.1% of male respondents had a score of 8. The tendency for male respondents to report lower ability in IADL tasks could be due to sex norms within older cohorts. The reported need of assistance in IADL ability related to meal preparation and housekeeping could be less related to declining ability and more related to lack of familiarity, knowledge and experience related to these specific tasks.

Overall, findings provided evidence that the respondents were still able to function independently without the need of daily assistance from others.

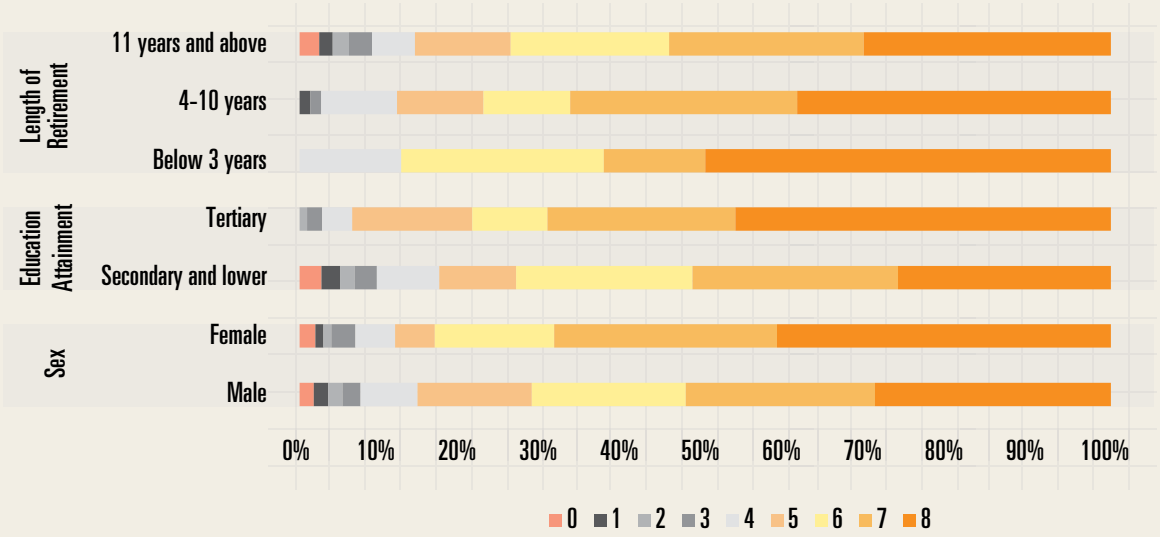


Figure 4.6-1: Percentage of the IADL score by length of retirement, education attainment and sex

4.6.2 Health Related Quality of Life

The 12-item Short-Form Health Survey (SF-12) is a multipurpose, generic 12-item questionnaire developed from the SF-36 that is one of the most widely used health status evaluation tools. The SF-12 provides a shorter but still valid and reliable alternative to the SF-36 for use in large samples. The SF-12 yields an eight-scale profile of scores as well as physical and mental health summary measures: physical functioning (PF, two items), role limitations due to physical functioning (role-physical [RP], two items), bodily pain (BP, one item), general health (GH, one item) perceptions, vitality (VT, one item), social functioning (SF, one item), role limitations due to emotional problems (role-emotional [RE], two items), and mental health (MH, two items). Answers to questions of these subscales were combined (weighted) with Physical Component Summary (PCS-12) and Mental Component Summary (MCS-12) scale scores. The MCS-12 and the PCS-12 measured the latent concepts of mental and physical health, respectively. Each of the components was scored on a scale from 0 to 100 with a mean of 50. Higher scores represented better health. The PCS-12 focused on participants' general overall health, limitations in mobility, work, and other physical activities as well as limitations due to pain. The MCS-12 encompassed participants' limitations in social activity, emotional state, and level of distraction. For both the PCS-12 and the MCS-12, the mean score was 73.84 (SD=18.8) and 82.53 (SD=14.4) respectively.

Mean scores of PCS and MCS by sex, education attainment and length of retirement are shown in Figure 4.6-2. Results indicated that the mean score for male respondents was higher than female for both PCM and MCS. This indicated that male respondents had better health status than female respondents. In terms of education attainment, the mean score for tertiary level was higher than secondary level for PCM but for MCS the mean score for secondary level was higher than tertiary level. The mean score of respondents with lower education was better in terms of social, emotional and mental health. The mean score for respondents who retired less than three years was higher than respondents who retired more than four years for both PCS and MCS. It shows that the longer you retire the lower your health status becomes.

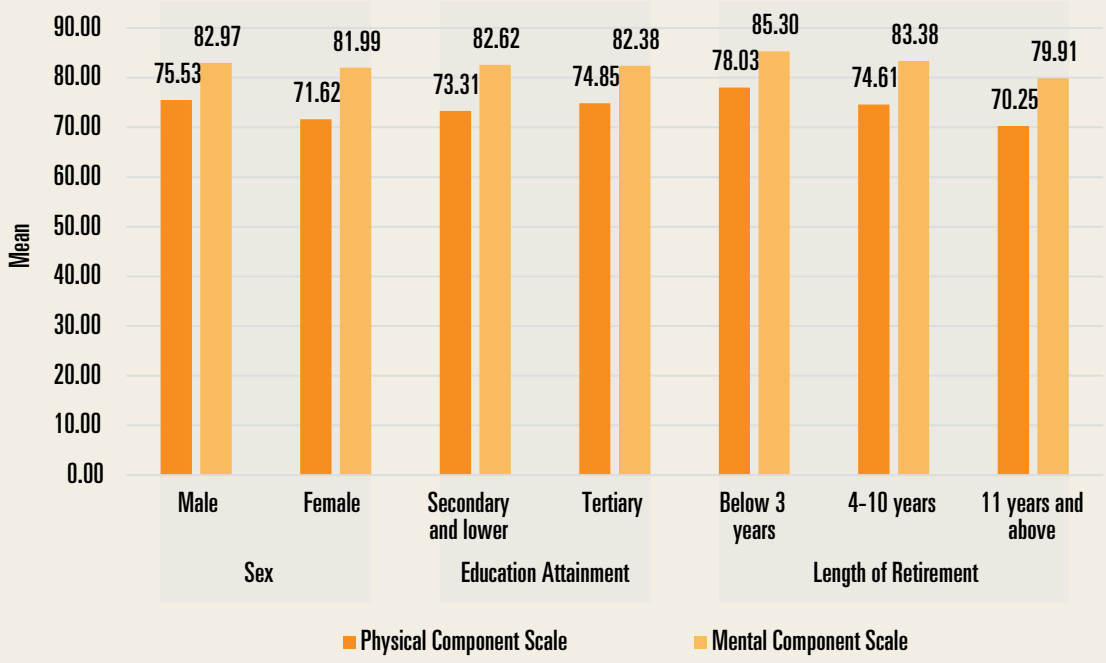


Figure 4.6-2: Mean score of PCS and MCS by sex, education attainment and length of retirement

4.6.3 Life Satisfaction

Life satisfaction was measured using 11 items. Respondents rated the items on a scale 1 to 5, with 1 being very unsatisfied and 5 very satisfied. The scale reliability (Cronbach's alpha; α) is 0.912. In general, respondents scored high in life satisfaction with average mean (SD) of 4.38 (4.45). The highest mean was satisfaction on children (4.56) and the lowest was on health (4.05). Mean and SD of each item is in Table 4.6.

Table 4.6: Mean and Standard Deviation of the respondents' life satisfactions

Life Satisfaction	n	Mean (SD)
Your health	747	4.05 (4.00)
Your household income	747	4.15 (4.00)
Residence	747	4.49 (5.00)
Your husband/wife/partner	725	4.63 (5.00)
Your job	555	4.26 (4.00)
Your social life	747	4.33 (4.00)
The amount of leisure time you have	747	4.51 (5.00)
The way you spend your leisure time	745	4.47 (5.00)
Your child(ren)	740	4.56 (5.00)
Environmental safety	747	4.16 (4.00)
Your life in general	747	4.53 (5.00)

Figure 4.6-3 compares the life satisfaction in four distinct sum score categories of 11- 21, 22-32, 33-43 and 44-55. There is not much difference to be observed across the categories by sex, education attainment and length of retirement. However, female respondents (79.8%), those with tertiary education (80.7%) and retired below 3 years (82.4%) had slightly better life satisfaction as compared to the others in similar category. Findings yield conclusion similar to other research on life satisfaction reflecting the elements of contentment and self-acceptance.

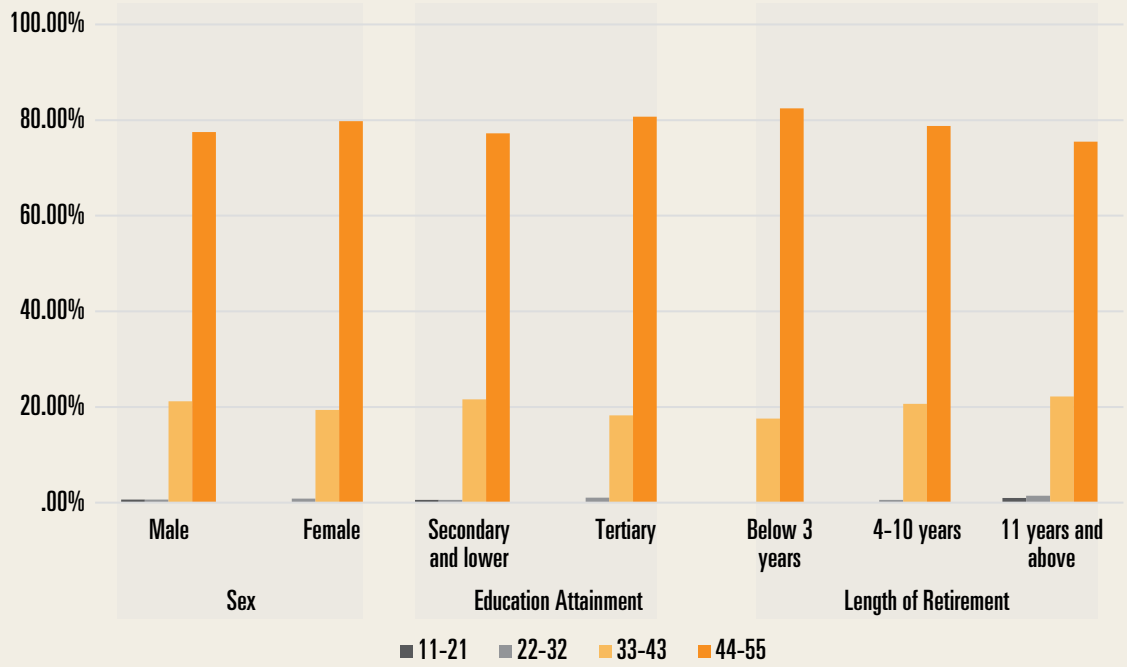
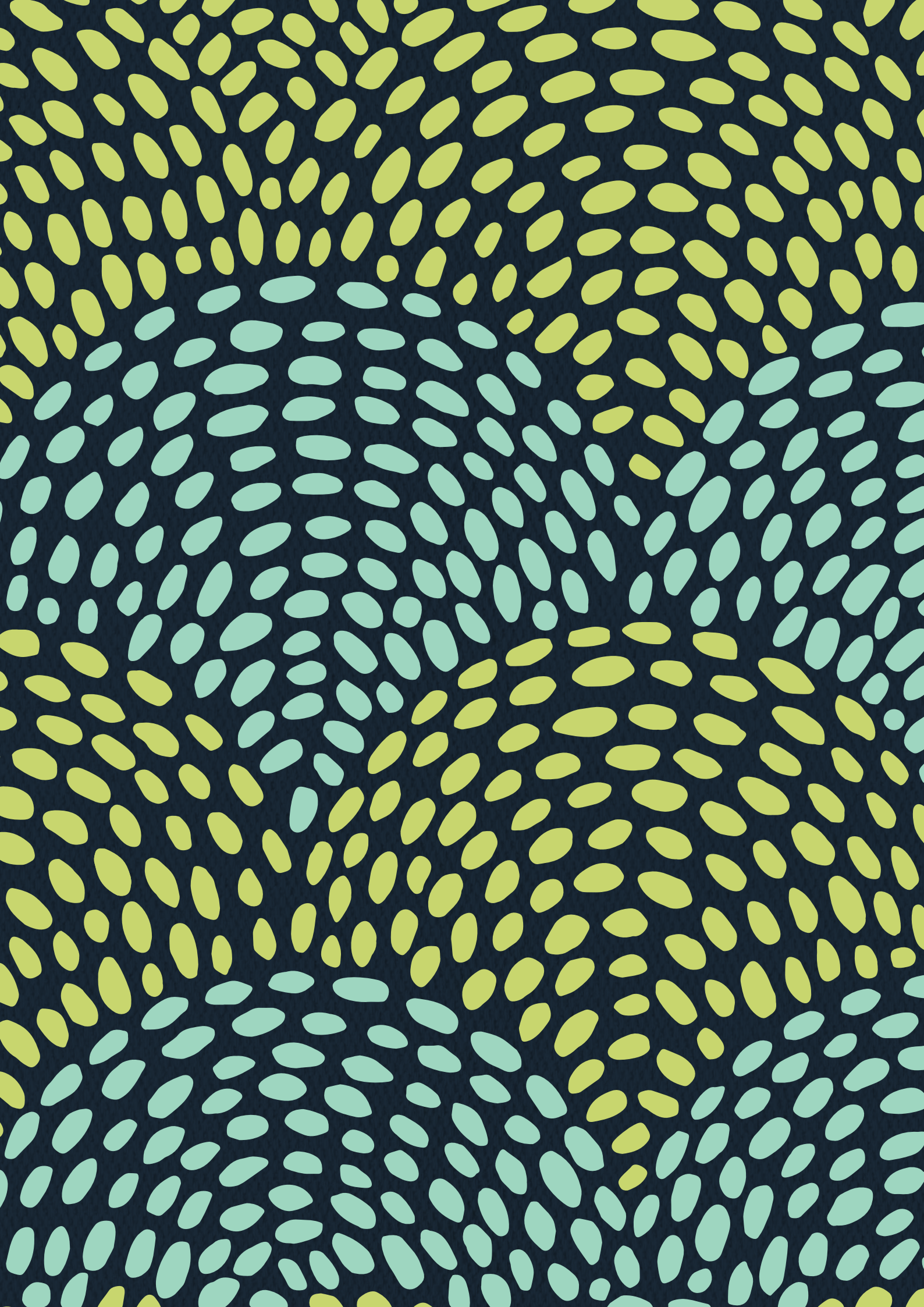


Figure 4.6-3: Percentage of life satisfaction score by sex, education attainment and length of retirement

Key Findings:

- Mean score of IADL is 6.69 (SD = 1.56), which indicated that the respondents were able to perform more than half of the tasks.
- The SF-12 yields that the longer you retire the lower your health related quality of life becomes.
- No difference was observed in life satisfaction across the categories by sex, education attainment and length of retirement which may be due to contentment and self-acceptance.



THIS CHAPTER WILL HIGHLIGHT THE SUMMARY OF RESEARCH FINDINGS FOR PRE-RETIREES AND RETIREES BASED ON THE OBJECTIVES OF THE STUDY NAMELY PRODUCTIVE ACTIVITIES, ASPIRATION AND ATTITUDES TOWARDS RETIREMENT, FACILITATING AND BARRIERS FOR ACTIVE PARTICIPATION, ECONOMIC VALUATION OF PRODUCTIVE ACTIVITIES, HEALTH AND SELF-CARE.

chapter five

Summary of findings and recommendations

SUMMARY OF FINDINGS AND RECOMMENDATIONS

5.0 Introduction

This chapter will highlight the summary of research findings for pre-retirees and retirees based on the objectives of the study namely productive activities, aspiration and attitudes towards retirement, facilitating and barriers for active participation, economic valuation of productive activities, health and self-care. A section will be devoted to present the gap between government commitment and the value of economic contributions of retirees. This will be followed by recommendation based on the findings of the study and finally the limitations of the study.

5.1 Summary of Findings on Pre-retirees

5.1.1 Socio-demographic and Economic Profile

A total of 863 government employees from 11 Federal ministries, aged between 40 to 60 years old participated in the study. Majority of the respondents were Malays, reflecting the composition of government employees in the country, were currently married with dependent children and in nuclear-type households with a mean household size of four persons. Slightly more than half of the respondents had dependent parents. Hence, respondents were mostly "sandwiched generation" – i.e. middle generation sandwiched between child and parent/older generations. Consequently, respondents shouldered both responsibilities caring for own children as well as parents. For male pre-retirees, a higher percentage of them were categorised as "single-earner household" as their spouses were homemakers.

Majority of respondents had tertiary education and about one-third were in the professional group. More male respondents were employed in technical occupation, while more female respondents were in the clerical group. On average, respondents had worked in the government sector for about 20 years. Respondents with in the older age cohort, recorded lower education attainment compared to younger age cohort which reflected different education opportunities across time.

The household monthly income was between RM3,000-RM5,999. The pre-retirees had assets in the form of home ownership, savings and insurance (life, health, property and education). Pre-retirees were reported to have outstanding loans on cars, personal loans and installment, nevertheless, a small percentage had productive loans such as ASB loan. Series of financial management courses be made as one of the training requirement for government employees.

5.1.2 Productive Activities

Productive activities were measured by collecting data on time use pattern. A slightly higher percentage of the male respondents were involved in caring for their families than the female respondents, even though the female were reported to have spent more time (on average) on each type of care than male except care for grandchildren. Male respondents had the tendency to be involved in volunteering activities and side jobs twice more compared to female respondents. Respondents with lower education attainment reported to have the highest percentage in almost all activities except caring for parents and caring for own children compared to tertiary-educated respondents. They also consistently spent more time per week in all activities except for own children compared to their more educated peers.

A higher percentage of those who had worked less than 18 years participated in the care for parents and children compared to their counter parts. One-fourth of those who had worked for less than 18 years were also involved in supplementary income generating activities. In contrast, those who had worked for more than 18 years were more involved in providing care for grandchildren and volunteerism. In general, majority of the respondents were involved in family activities with limited involvement in the community.

5.1.3 Aspirations and Attitudes towards Life in Retirement and Retirement Preparedness

5.1.3.1 Aspirations and Attitudes towards Retirement

Eleven items were used to measure pre-retirees' aspirations and attitudes towards life in retirement. The data showed that pre-retirees had positive attitude towards retirement, particularly among female respondents, older age cohort (50 years and older) and those with tertiary education. More than three quarters of the pre-retirees were looking forward to be involved in religious activities, spending time with their family and travelling in retirement. Majority had unwritten retirement plans, and very few had written plans. The data also showed that a higher percentage of pre-retirees who attended pre-retirement courses had written plans. This situation needs to be emphasized as to make pre-retirement course compulsory for government employees and introduce the courses as early as age 40.

5.1.3.2 Retirement Preparedness

Retirement preparedness was measured using two different scales: self-rated perception of retirement preparedness and 17-item Retirement Preparedness Scale.

The self-rated perception of retirement preparedness indicated that the respondents perceived they were prepared for retirement. A higher percentage of male pre-retirees perceived they were prepared in all five areas except on finance and those below 40 years old perceived they were least prepared than the other age groups.

The 17-item Retirement Preparedness Scale required respondents to choose statements which reflect the rank of areas. More than half of the respondents envisioned their life in retirement, felt they can adjust to the loss of power and adapt to new roles upon retirement. Nevertheless, more than half of the respondents indicated they will set retirement goals when the time comes, reflecting unclear retirement goals. In terms of family relationship, a high percentage of respondents reported that they would make efforts to strengthen family relationship. In addition, pre-retirees claimed to have a wide social network beyond co-workers and family members. As for involvement in the community, pre-retirees anticipated that they would only get involved in such activities when they had free time.

In terms of health, pre-retirees reported that they consumed healthy food and enjoyed a balanced diet. Nevertheless, they exercised at their convenience, and reported to have had regular medical check-ups as advised. Pre-retirees claimed that their income was just enough to cover their monthly expenses.

Unfortunately, pre-retirees were not habitual savers – i.e. they only occasionally saved for retirement. As far as the services and facilities for older persons are concerned, generally, pre-retirees were aware of these services and facilities.

The top three assistances cited by pre-retirees to assist them to prepare for retirement were as follows: money management in retirement; financial advice for retirement; emotional preparation for the next step in life. In addition, social aspects of life planning are vital in preparation for social and interpersonal needs and what to do with the rest of their lives. Hence, both financial and socio-psychological aspects of retirement preparation were equally important in preparing for retirement. Consequently, the syllabus of life after retirement intervention program needs to be comprehensive and covers financial as well as socio-psychological matters.

5.1.4 Facilitating Environment and Barriers to Active Participation in Community Setting

Health status was found to be the key facilitating factor and barrier to active participation in the community. All respondents irrespective of their backgrounds, mentioned maintaining good health would facilitate active/productive participation of pre-retirees in the community while ill-health would be a barrier to active participation in the community. Consequently, it is important to maintain good health to achieve the aim of productive and active ageing in retirement. In addition, instilling the feeling of responsibility towards the community, flexible time and opportunity to share experience would facilitate retirees to actively participate in the community.

Health status seemed to be the dominant barrier to re-employment mentioned by all categories of respondents, followed by age limit and working environment not suitable for senior citizens. Employers were reluctant/not interested to employ retirees and respondents who chose not to work were also reported as barrier to re-employment after retirement. Ageism and stereotyping of older persons which still prevail must be addressed to accelerate effort to promote active participation of retirees in the community.

5.1.5 Value of Productive Activities

More than 90% of the economic contributions were from the productive activities of caring for family members. The remaining economic contributions were attributed to volunteerism and additional jobs. The employees' involvement in family care limited their participation in the community. The economic contribution of pre-retirees using MRR was RM16,336,977 per year and using OC was RM14,570,075 per year. The total ECs of the government employees in Klang Valley was calculated based on the percentage of involvement of the respondents in the study. The total annual ECs by the MRR method was estimated at approximately RM11 billion and OC method was at approximately RM9.8 billion. It can be concluded that MRR method provides more accurate and estimate the value of household production, nevertheless database on market replacement value for various household production activities has to be developed.

5.1.6 Health Status and Health Service Utilization Patterns

Perceived health status often influenced one's health seeking behaviour. More than three quarters of the respondents in this study perceived their health as good despite the fact that one-fourth indicated they had hypertension. Less than 10% perceived their health as poor or very poor. Less than half of the respondents did not have any diseases at all and they comprised of the younger age group, females and those who had worked for less than 18 years. About 11% of the respondents had at least one age-related disease.

Majority of the pre-retirees utilized government clinics and hospitals for outpatient services – i.e. half of them consulted doctors in government clinics and one-fourth in government hospitals. Only 50% of the respondents practiced high self-care while the other half practiced low self-care. The annual estimated out patient cost for about 50% of pre-retirees in the study who visited government clinics was RM140,760. The cost of treatment for diabetes was the highest health care cost. The estimated cost for less than 100 respondents was almost one-quarter million Malaysian Ringgit. Those with NCDs diseases need to be given the skill to manage their diseases as to help curbs increase cost of health care by the government.

5.1.7 Self-care

Ten statements were used to measure self-care practices within the last six months. The self-care practices score was computed and grouped into low and high self-care. Those scoring below 40 were grouped as low self-care and 40 and above were grouped as high self-care. The data shows that more than half of the respondents practiced low self-care. A higher percentage of female respondents were in the high self-care group compared to male respondents. The older age group tended to be in the highself-care group. Those with low self-care are more susceptible to NCDs which eventually the cost will borne by the government. Self-care practices should also be a priority to government employees to optimize productivity at the workplace.

5.2 Summary of Findings on Retirees

5.2.1 Socio-demographic and Economic Profile

A total of 747 government retirees residing in Klang Valley participated in the study. The mean age of the retirees was 64.8 years old and majority were Malays, currently married and had secondary education. Majority of these retirees lived in two-generation households. The mean length of retirement was 9.6 years with a median of eight years. Slightly more than half of the respondents indicated they never attended any pre-retirement course to prepare them for retirement. The mean amount of monthly pension received by the respondents was RM2,174.18 with a median of RM1, 900.00 per month. The percentage of respondents who continued working for pay after retirement was small, hence only a few received an income from salary/wage. Majority of retirees owned a house, and more than half reported having some form of savings. Compared to pre-retirees, a small percentage of respondents in this study had outstanding debts. Heavy reliance of pension for income in old age may have negative effects on the standard of living as a result of increased cost of living.

5.2.2 Productive Activities

Older adults continued to make valuable contributions to the society after they withdrew from the labour force. Only a small percentage of retirees were involved in income generating activities after retirement. They were involved in many types of activities, even though mostly concentrated in own routine activities such as doing household chores, doing hobbies and others. In other words, they not only took care of themselves and enjoyed life but seemed to be the mainstay of many families and households– they provided assistance, performed caring tasks in their own home and that of their relatives and friends. The help they provided allowed their children to continue working.

Besides caring for family members, the number of retirees that were involved in "giving back to the society "kind of activities such as teaching and volunteering was still small (about 23%). Thus, they may represent untapped talents that became a loss to the society and community.

5.2.3 Attitudes towards Retirement, Adjustment and Life in Retirement

5.2.3.1 Attitudes towards Retirement

Generally, retirees have positive attitudes towards retirement across sex, length of retirement, education attainment and retirement options. Their attitudes were influenced by (i) their perception of their economic resources in retirement and (ii) ability to enjoy retirement such as being healthy. Divorced/separated respondents showed negative attitudes towards retirement compared to those who are currently married or widower. On the other hand, respondents who retired from government service due to privatization had positive attitude towards retirement. It was reported that retirees who continued to work also indicated positive attitude towards retirement.

5.2.3.2 Retirement Adjustment

Result indicated that retirees were better adjusted in retirement if they scored high in the following: financial preparation, health, spirituality, home, mental and relationships. In addition, the number of assets owned, positive attitudes towards retirement and having tertiary education also influenced positively towards their retirement adjustment. In contrast, their adjustment in retirement were negatively affected by outstanding loans and diseases/illnesses.

5.2.3.3 Life in Retirement

Seventeen statements were developed to measure life in retirement which comprised of daily routine, changes in roles and power in retirement, retirement goal, family relationship and social network, involvement in the community, pattern of food intake, exercise, medical check-up, spending pattern, debt burden, saving habits, suitability of current house, mobility, knowledge on facilities and services for older persons and time utilization. The responses to each question indicated ranking of ideal practice for the question and response 4 showed the best practice. In brief, the retirees reported to have a good life in retirement. Consequently, retirees who were female, currently married, never married and longer length in retirement scored high in the scale indicating their life in retirement were close to the ideal life. However, the research is only confined to Klang Valley where the facilities and amenities are easily accessible. There is a need to study life in retirement among those living elsewhere especially in rural area.

5.2.4 Facilitating Environment and Barriers to Active Participation in Community Setting

Key factors to facilitate active participation among older persons were good health (which relate to one's earlier "investment in health"), the opportunity to share experiences, opportunity to mix with others, financial reward and instilling the feeling of responsibility to the community. On the other hand, the retirees mentioned wanting to rest, health problem, and age limits as major barriers to active participation in the community. Other prominent factors that hindered re-employment were related to workplace environment such as non-flexible working hours and unsuitable working environment for older persons and the cost of being re-employed weighed as more than its benefit. There is a need to relook at the employment act, policy and work arrangement to attract more retirees to continue working.

5.2.5 Value of Productive Activities

The highest value contributed by retirees was on house hold chores followed by gardening. In general, the overall economic contribution among female respondents was much higher compared to male respondents especially after taking into account the household chores. There were also some differences in the value of productive activities by length of retirement whereby those who have retired for more than 11 years tended to have higher economic value as compared to those who have just retired. The total economic contributions (ECs) based on study samples using MRR was RM15 million and using OC was RM9 million. The total annual ECs using MRR method was approximately RM11.7 billion whereas the value by way of OC was approximately RM10.3 billion. Commonly, retirees are seen as a burden and not contributing to society. Nonetheless, findings showed that they contributed significantly to society especially in care roles.

5.2.6 Health Status and Health Service Utilization Patterns

Retirees generally perceived that they were healthy (about 80%). About 30% of retirees perceived their health as very good while more than half perceived their health as good. About 22% of respondents had no diseases at all. For those who had diseases, the maximum number of diseases reported was seven; 31% had one disease, 24% had two and 14% had three diseases. The top three diseases reported by the retirees were NCDs, namely hypertension, diabetes and hyper cholesterol.

Retirees mostly seek treatment in government clinics and hospitals. About48% and 41% visited government clinics and hospitals respectively in the past six months and the total number of visits were 1,010 and 824 respectively. Consequently, the estimated total annual cost borne by government for government clinics was RM121,200 and RM98,880 for government hospitals. NCDs can undermined health gains and imposing financial and economic costs on government and households because NCDs are preventable through self-care and health maintenance throughout one's life.

5.2.7 Self-care

Majority of the respondents adopted healthy habits as indicated by high score in self-care scale especially among those aged 60 to 69 years. Respondents who scored low in self-care scale consisted of males, age less than 60, tertiary educated and retired for more than 11 years. Self-care is critical for retirees to manage their NCDs and age-related diseases as well as maintaining good health.

5.3 Gap between Government Expenditure and Value of Respondents' Productive Activities

The potential economic implication and fiscal burden due to growth of aged population in the country has become a concern and caught the attention of policy makers in the last five years. This concern has been highlighted and incorporated in the 11th Malaysian Plan (Government of Malaysia, 2015), where the focus was to promote active and productive ageing and providing supportive environment to enable older persons to contribute to society. Active and productive ageing emphasized that older adults have the potentials to contribute to society and their participation in society will not only improve their own well-being, but also societies (WHO, 2002).

The government is a major employer in the country and the commitment for its employees and retirees consisted of salary, pensions and health benefits. Therefore, the demographic trend and longevity directly impact fiscal commitment of the government. At the same time, employees and retirees were involved in productive activities that are yet to be valued (economically). As such, the study analysed the gap between government expenditure on the respondents and their productive contribution to the nation such as through voluntary work and rendering informal care in the community and at home.

In this study, the government's expenditures were calculated using the salary (pre-retirees) and pensions (retirees) reported by respondents and the healthcare cost was calculated using the frequency of outpatient visits reported. The time spent on the productive activities of the respondents were measured and their economic valuation were estimated using MRR. Analyses were calculated based on cohort comparison. Three cohort groups were used as a basis of comparison. For pre-retirees, the groups were: aged below 40, 40 to 49, and 50 to 60 years; for retirees the groups were: below age 60, 60 to 69, and 70 and older.

Figure 5.3 shows the cost paid by the government (i.e. sum of total salary/pension received, outpatient health utilization cost[13]) and the estimated economic value of their productive activities[14] for the samples. The result shows that besides receiving salary/pension from the government, pre-retirees and retirees were contributing to the economy. The highest contribution among pre-retirees was from the cohort of 40 to 49 years old and among retirees was from 60 to 69 age cohort.

The health utilization cost among retirees tended to increase with age. The data also shows that the government has to bear the health utilization cost among the pre-retirees as well. The lifestyle diseases suffered by pre-retirees will progress to old age unless interventions are introduced to improve the disease management.

[13] The health care cost was estimated using the outpatient cost only. Other cost such as inpatient care and diseased –based cost were not factored in the calculation, thus underestimating the real cost borne by the government.

[14] The time spent for productive activities were not based on a comprehensive time use study. So, the value obtained represent the rough estimate of time used and its economic values.

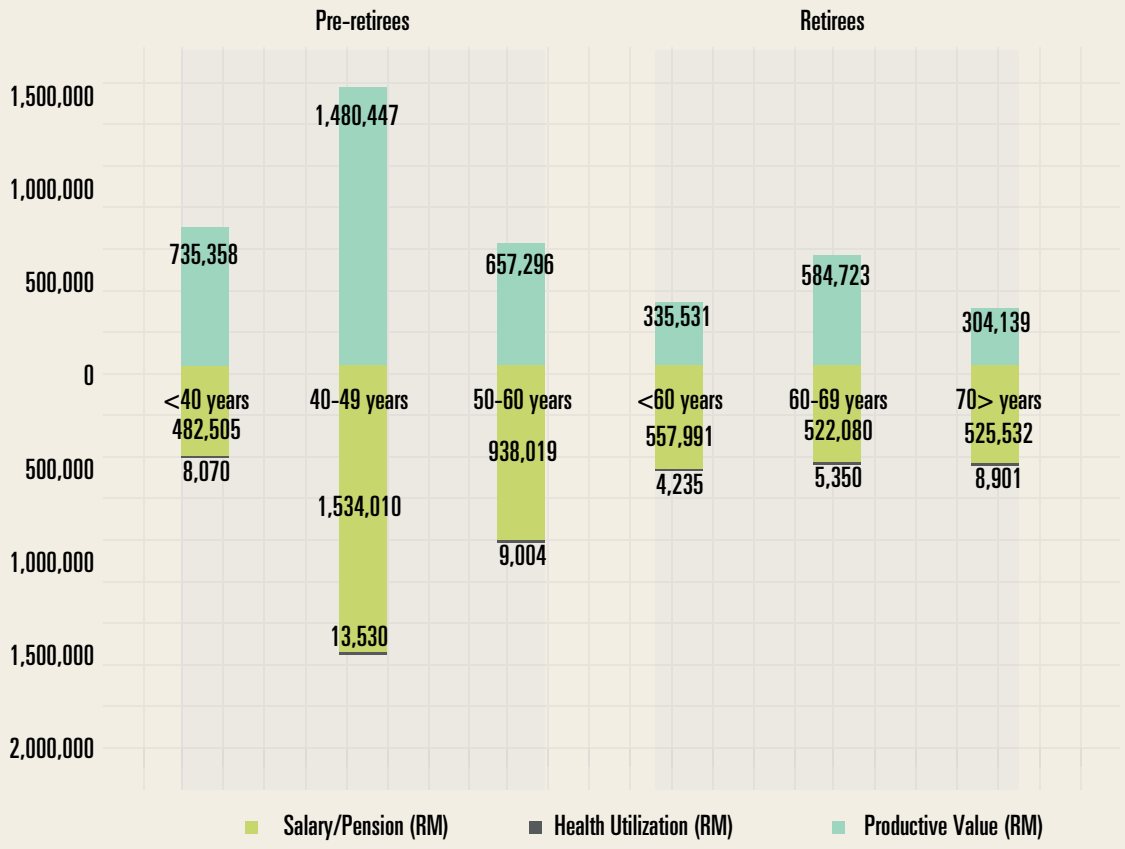


Figure 5.3: Salary/Pension, health utilization and productive value by age cohort

In conclusion, retirees are not totally burdening the economy as the study shows that workers and retirees did contribute to the economy, albeit the percentage of contributors were small. Intervention efforts should be intensified to encourage more active participation of pre-retirees and retirees in productive activities, especially for the community such as volunteerism as they are "untapped" resources that has the potential to contribute to national development. In such cases, strategy of mainstreaming of older persons would be beneficial.

In order to obtain improved data of the contribution of older persons, further research is needed to extrapolate the results to the larger population of workers and retirees. Although the study showed limited involvement in community and more on home activities, it should be acknowledged, that informal care provided by family members has tremendous impact on the lives of both the recipients and carers and yet it is often ignored in economic evaluation. Aggregate estimates of the market cost to replace unpaid care provided in the study are important for policy making to situate the contribution of unpaid caregivers to the care economy.

In addition to the existing findings of the study, based on the experience during data collection, there is a need for integrated and updated databases on retirees and employees.

5.4 Recommendations and Plan of Action

Several recommendations put forward based on the findings of this study are presented as follows:

Table 5.4: Recommendations and plan of action

Objective	Recommendation	Action	Responsible Party
1. To determine productive activities of pre-retirees and retirees.	**PRE-RETIREES**		
	1. Develop government volunteer corps to cultivate the culture of community involvement and volunteerism among pre-retirees.	1. To acknowledge employees' contribution to the community through a merit system or be built-in the employees' Key Performance Indicator (KPI). 2. To include community involvement as part of the annual in-service training.	PSD
	2. Conduct a national time use study among government employees and to assess burden of care among family.	1. To develop research proposal on national time use study and seek funding.	1. PSD 2. KWAP
	RETIREES		
	1. Develop a database on skills and expertise of retirees.	1. To update retirees database by including their skills and expertise 2. To provide access of the data base to potential employers. 3. To explore possibility of setting job quota for re-employment of retirees. 4. To give incentives to employer who employ retirees.	1. PSD (Post service division) 2. KWAP 3. Ministry of Human Resource
	2. Increase retirees' contribution to the community.	1. To develop directory of community activities. 2. To establish information centre for retirees to know about opportunities to contribute to the community. 3. To disseminate community activities information at common places such as place of worship and public transport. 4. To include community activity information in MyPesara Apps. 5. To give recognition to retirees who are active in community activities.	1. KWAP 2. ***Persatuan Pesara***

Objective	Recommendation	Action	Responsible Party
2. To examine pre-retirees' and retirees' aspirations and attitudes towards life in retirement, retirement preparedness and retirement adjustment.	**PRE-RETIREES**		
	1. Develop retirement planning modules tailored to the need of the employees and based on different life stages.	1. To introduce retirement planning early in the career especially on financial aspects. 2. To develop "forced saving" program similar to EPF. 3. To develop comprehensive modules consist of both financial and socio- psychological aspects of retirement preparation. 4. To conduct pre-retirement training course (age 40) and retirement preparation course (age 55 onwards).	1. PSD (Service Division) 2. INTAN
	RETIREES		
	1. Increase knowledge and skills in managing life in retirement.	1. To develop managing life in retirement modules. 2. To design and implement a pilot training program on managing life in retirement. 3. To engage and train retirees as trainers. 4. To implement managing life in retirement programs. 5. To conduct periodical training evaluation for further improvement.	1. PSD 2. KWAP 3. ***Persatuan Pesara***

Objective	Recommendation	Action	Responsible Party
3. To identify the facilitating environment and barriers encountered by the pre-retirees and retirees to be involved in productive activities.	**PRE-RETIREES**		
	1. Review employment policy, rules and regulations to address the issue of re-employment in old age.	1. To develop work package suitable for older workers. 2. To introduce attractive package to entice pre-retirees to venture into community activities as part and parcel of their work. 3. To conduct awareness campaign on the importance of productive and active ageing among government employees.	1. PSD 2. Ministry of Human Resource
	2. Develop in-situ preventive health programs to encourage healthy living.	1. To establish a merit system at individual and departmental levels for active participation and for staying healthy. 2. To develop preventive health programs at workplace.	PSD
	3. Review the mandatory retirement age and explore gradual retirement or phase retirement option.	1. To explore workers' preference regarding retirement age and gradual retirement. 2. To conduct trial period for implementation of gradual retirement.	PSD
	4. Overcome ageism and stereotype towards older persons.	1. To conduct research on the extent of ageism and stereotype among different groups. 2. To launch a campaign and educational program to address ageism and stereotype. 3. To develop Malaysian Ageism Index.	1. PSD 2. Ministry of Women 3. Family and Community Development 4. Department of Statistics
	RETIREES		
	5. Increase retirees' involvement in productive activities.	1. To develop registry of retirees who interested to be reemployed. 2. To create job-matching platform specific to post-retirement employment, such as job sharing, contract, flexible time and piecemeal. 3. To provide knowledge and skills in developing senior-preneurs among retirees. 4. To encourage activity centre or self-help group among retirees. 5. To strengthen volunteerism component of 1PESARA volunteer initiatives by promoting aggressively to create a pool of senior volunteer movement amongst retirees.	1. KWAP 2. Ministry of Human Resource

Objective	Recommendation	Action	Responsible Party
4. To assess the value of productive activities contributed by the pre-retirees and retirees to the economy.	**PRE-RETIREES**		
	1. Develop a valuation system for productive activities among government employees and retirees.	1. To compile market replacement rate for productive activities. 2. To develop opportunity costing for the different productive activities based on qualification. 3. To explore reservation wage. 4. To incorporate valuation for the activities in GDP.	1. PSD 2. Ministry of Human Resource
	RETIREES		
	1. Increase the proportion of retirees' involvement in the community.	1. To develop programs to instil the culture of volunteerism in the community. 2. To conduct local community need assessment to identify the issues and needs of the community. 3. To provide training to retirees to enable them to volunteer to the local community. 4. To increase opportunities and accessibility to program in the community to entice the public to participate.	KWAP
5. To assess the health status and health service utilization patterns of the pre-retirees and retirees.	**PRE-RETIREES**		
	1. Systematically implement preventive health policy among government employees.	1. To include the health status as one ofthe indicators for performance. 2. To develop workplace health intervention programs to promote healthy lifestyle, supportive environment and addressing the health needs of employees. 3. To expand mandatory health check-up at the age of 30, 40, 50 and before retirement. 4. To provide incentive for employees who are involve in preventive health activities. 5. To explore possibility of long term care insurance for government employees.	1. PSD 2. Ministry of Health 3. CUEPAC 4. KWAP
	RETIREES		
	1. Systematically monitor health service utilization among retirees.	1. To categorise retirees based on their health status to ease medical support; updated every three years. 2. To implement mandatory health check up at the age of 60 and at the interval of every five years. 3. To establish community health care monitoring and advisory services for retirees.	1. KWAP 2. Ministry of Health 3. ***Komuniti Sihat Perkasa Negara*** (KOSPEN)

Objective	Recommendation	Action	Responsible Party
6. To determine the level of self-care practices of the pre-retirees and retirees.	**PRE-RETIREES**		
	1. Develop programs to increase self-care practices among government employees.	1. To create an awareness on the importance of self-care through various channels. 2. To give recognition to staff who actively involved in promoting self-care. 3. To encourage self-care activities through formation of self-care teams at departmental levels.	1. PSD 2. All ministries
	RETIREES		
	1. Develop programs to increase self-care practices among government retirees.	1. To create an awareness on the importance of self-care through various channels. 2. To encourage self-care activities through community self-care groups.	1. KWAP 2. Ministry of Rural and Regional Development 3. Local Authorities

5.5 Limitations of the Study

There are several limitations inherent in the study that must be acknowledged.

1. Generalizability of results

   This study was conducted in federal ministries and agencies located in Klang Valley. Henceforth, the results of the study might not represent the total population of government employees and retirees in the country.

2. Data collection procedure

   The study adopted multiple procedures in identifying the sample of the study due to time and budget constraints and low response rate apart from managerial challenges (e.g. lack of support from the government employees and the late approval from top management of ministries and agencies) during the data collection process. In addition, the sampling frame provided by the PSD were not updated, thus difficulties were encountered in tracing the retirees. Hence, the samples for the study might not really represent the population required for the study. Similar cases also applied to pre-retirees where by there was very poor response from the selected sample thus the researcher had to resort to convenient sampling method.

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APPENDIX 1

Malaysia has most bloated civil service in the world

| February 1, 2017

Second Finance Minister Johari Abdul Ghani admits salaries and pensions of civil servants are becoming a strain on the government.

KUCHING: The Malaysian civil service is right at the top when it comes to the size of the civil service.

There is one civil servant for every 19.37 people in the country, according to Second Finance Minister Johari Abdul Ghani.

A Borneo Post report said the proportion of civil servants to the national population in other countries such as Singapore is 1 to 71.4 people; Indonesia 1:110; Korea 1:50, China 1:108, Japan 1:28, Russia 1:84 and the United Kingdom 1:118.

The bloated civil service of 1.6 million has caused government expenditure to rise yearly, The Borneo Post quoted Johari as having told the Chinese-language Oriental Daily.

Despite the fact that salaries and pensions to civil servants continue to soar, the government has no plans to reduce the number of civil servants, according to Johari.

“One of the issues that we have to address is the ever-increasing government operating costs and expenses.

“For example, we have about 1.6 million civil servants, which is the world’s largest proportion of civil service,” Johari was quoted as having said.

“In 2003, the pay of public servants totalled RM22 billion, but it increased to RM74 billion by 2016. In 2003, the pension of civil servants was RM5.9 billion, and in 2016 the amount soared to RM19 billion,” he was quoted as saying.

Johari acknowledged that payments would continue to increase in future while the government’s revenues would gradually decline.

“In particular, revenues from the palm oil and natural gas industries, which generated profits of about RM65 billion in 2014, fell sharply to RM30 billion in 2016.

“We will not reduce our existing civil service. Instead, we should encourage civil servants to undertake more jobs in their respective departments to increase their productivity,” Johari was quoted as having told Oriental Daily.

Bernama reported last March that Minister in the Prime Minister’s Department Shahidan Kassim had told parliament that as at December 2014, the ethnic composition of the civil service was as follows: 78.8% Malays, Bumiputera Sabah (6.1%), Bumiputera Sarawak (4.8 %), Chinese (5.2 %), Indians (4.1 %), Other Bumiputera (0.3%) and Others (0.7%).

APPENDIX 2

Health Ministry to introduce new module, reduce healthcare cost | New Straits Times | Malaysia General Business Sports and Lifestyle News

The Health Ministry is currently working on a module for a better private and public partnership to optimise the current pool of medical expertise and reduce healthcare cost. (Bernama photo)

By Beatrice Nita Jay (/authors/beatrice-nita-jay) - March 16, 2017 @ 9:41pm

KUALA LUMPUR: The Health Ministry is currently working on a module for a better private and public partnership to optimise the current healthcare delivery system and reduce healthcare cost.

Its minister, Datuk Seri S. Subramaniam said this was due to the increase in Malaysian's total health expenditure in the recent years.

He said for 2015, the total health expenditure for Malaysia was RM52 billion with 48 per cent from the private healthcare system and 52 per cent from the public healthcare system.

"The cost for healthcare has relatively increased and at the same time, the lifespan of Malaysia has also increased. Although we do have modern technology which can help, the cost, however, is too expensive.

"Optimising the expertise that both the public and private health care system have, would help in ensuring patients receive medical services in primary care," he said, after the opening ceremony of Asian Strategy and Leadership Institute's 2017 Healthcare Forum.

"If most diseases can be treated in clinics, without being referred to the hospitals, then this can reduce the cost of healthcare expenditure one spends in a year," he said, adding that the ministry is currently studying various modules and is in the process of creating one for Malaysia.

RECOMMENDED

Bank Negara adds LaVida Coin to consumer alert list (https://www.nst.com.my/news/nation/2018/08/406182/bank-negara-adds-lavida-coin-consumer-alert-list)

Suspecting an affair, husband admits killing wife (https://www.nst.com.my/news/crime-courts/2018/08/405988/suspecting-affair-husband-admits-killing-wife)

Art can unite the people, foster love for the country: Dr Siti Hasmah (https://www.nst.com.my/news/nation/2018/08/406246/art-can-unite-people-foster-love-country-dr-siti-hasmah)

APPENDIX 3

expensive medical treatments in our blissful retirement vision. But an unexpected turn of events such as terminal illness or accidents can easily wipe away all your life savings.

There is no question that healthcare expense is a big concern for retirees. In fact, many studies suggest it is the biggest concern that retirees have. Instead of planning ahead, many find ways to limit their spending during retirement years as a way to mitigate the worst of health circumstances.

Don't wait till you're sick

Health problems do not discriminate between age and gender. Those who have been known to lead the healthiest of lifestyle could also fall prey to unexpected, life-threatening diseases.

For those who are planning for retirement, healthcare is a huge expenditure to plan for on top of normal living expenses. Unlike travel, hobbies or entertainment expenses in retirement, medical expenses are non-discretionary. If you are sick or injured you need treatment. Having adequate reserves and a good medical coverage can be the difference between a comfortable retirement and one filled with financial challenges.

It is critical that you take a hard look at what your medical expenses might be and factor these costs into your retirement spending estimation as well.

The key product solution for healthcare protection is medical insurance. While people are generally encouraged to start protecting their health at an early age, it is never too late to start tending to your well-being.

But don't wait till you are sick as medical insurance is only available to those who are in good health because insurance company is required to underwrite one's risk. Also, the older you get, the more insurance is likely to cost.

The biggest chucks of healthcare costs

As retirement planning needs to be personalised, so is planning for your healthcare cost in retirement as different people will have different health risk factors. As such, it pays to look into your family health history to determine your health risks in order to prepare more adequately towards it.

According to the World Health Organization (WHO), the top killer diseases in Malaysia are coronary heart disease and stroke. There are treatments for these diseases and other critical illnesses but they don't come cheap. To make matters worse, medical costs are getting higher by the year as our health deteriorates with age. In Malaysia, the medical inflation rate, which is the increase of medical costs, is between 10% and 15% every year.

Below is a list of diseases that commonly inflict senior citizens at retirement and provides a rough cost estimate for treatments today.

When you are planning for your healthcare expenditure in 20 years to come, the amounts in the table serve as a guide.

For instance, medical treatment for cataract costs RM3,500 to RM5,000 now and in 20 years, it could rise to between RM24,000 to RM34,000.

Medical Treatment	*Current Cost (RM)	**Cost in 20 years (RM)
Cataract	3,500 to 5,000	24,000 to 34,000
Heart Attack	10,000 to 30,000	67,000 to 202,000
Knee Replacement	15,000 - 40,000	101,000 to 270,000
Hip Replacement	18,000 - 50,000	121,000 to 336,000
Cancer	18,000 - 300,000	121,000 to 2,018,000
Stroke	35,000 - 75,000	235,000 to 505,000
Kidney Failure	150,000 and above	1,009,000 and above

APPENDIX 4

RESIT RASMI

KERAJAAN MALAYSIA
KEMENTERIAN KESIHATAN MALAYSIA
HOSPITAL SERDANG

No Resit : HSDRST/17127359
Tarikh : 20-JUN-2017

RM60.00

BAYARAN PERKHIDMATAN
PERUBATAN KESIHATAN
DAN PERGIGIAN

No. Pesakit :
Nama Pesakit : FPP
No. Akaun :

PERINGATAN

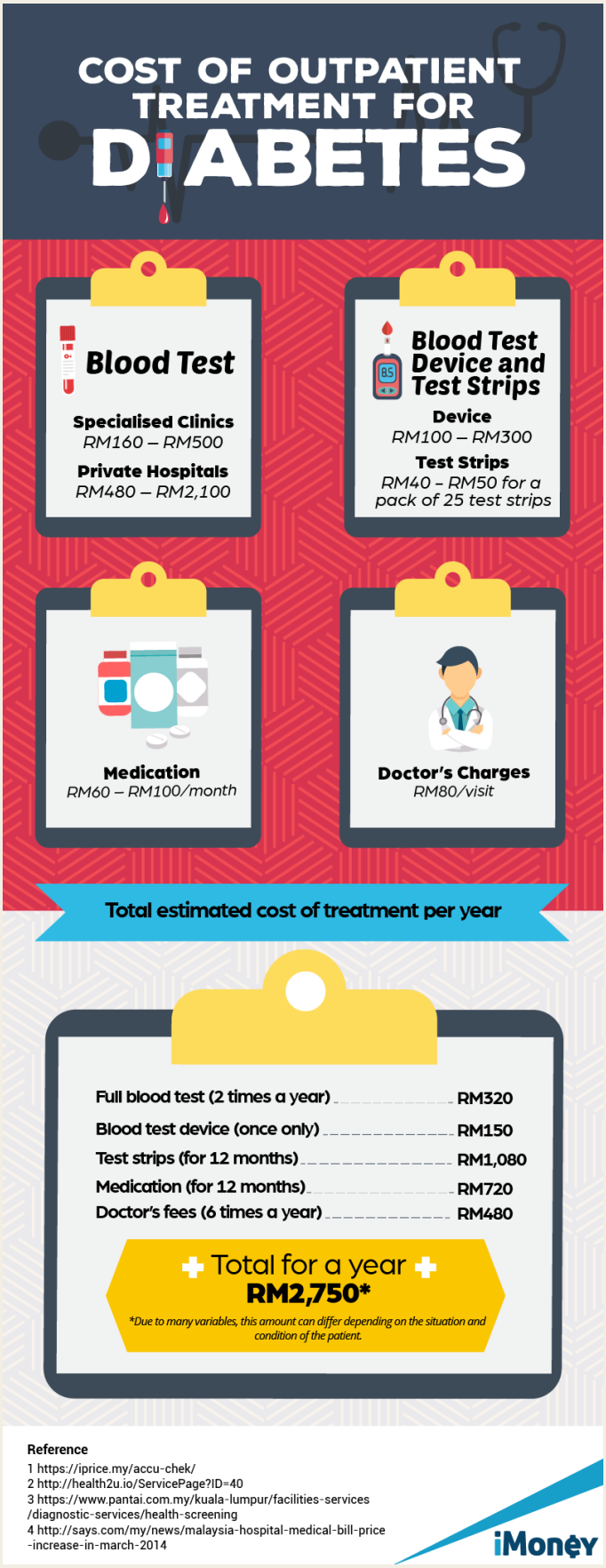
1. Resit-resit yang dicetak dengan komputer sahaja diakui sah oleh pihak Pentadbiran Hospital Serdang.
2. Sebarang pertanyaan berhubung dengan pembayaran hendaklah dikemukakan kepada:

Pengarah Hospital
Unit Hasil
Bahagian Pentadbiran & Kewangan
Hospital Serdang
Jalan Puchong
43300 Kajang
Selangor
Tel : 03-89475555 Fax: 03-89475050

HOSPITAL SERDANG UNIT HASIL SELANGOR

BNPK(8.15)248-10(SK.6) JD.31 (8)

APPENDIX 5



Reference

1 https://iprice.my/accu-chek/
2 http://health2u.io/ServicePage?ID=40
3 https://www.pantai.com.my/kuala-lumpur/facilities-services/diagnostic-services/health-screening
4 http://says.com/my/news/malaysia-hospital-medical-bill-price-increase-in-march-2014

iMoney

APPENDIX 6

BIL HOSPITAL

KERAJAAN MALAYSIA
KEMENTERIAN KESIHATAN MALAYSIA
HOSPITAL SERDANG
JALAN PUCHONG, 43000, Kajang, Selangor
Tel : 03-89475555, Fax: 03-89475050

No Bill : HSBLOP/17086599 Tarikh Bil : 22/05/2017 Tarikh Cetak Semula : 22/05/2017

Maklumat Pesakit		**Maklumat Penjamin**	
Nama Pesakit		FPP Nama Penjamin	:
K/P Pesakit		No K/P Penjamin	:
Alamat Pesakit		Maklumat Surat Jaminan	:
Tarikh Masuk	: 22/05/2017 14.59	Hubungan dengan Penjamin	:
Tarikh Keluar	:		
No.Pesakit	: SD00095049		
No Akaun	: 14463445		

PERIHAL BAYARAN	KADAR KOS SEBENAR / BIL. UNIT	KOS SEBENAR	KADAR DICAJ/ BIL. UNIT	AMAUN DICAJ	CATATAN
Cardiology Code A					
ECG - Report	25.00/1	25.00	25.00/1	25.00	
Cardiology Code B					
ECG (Resting)	0.00/1	0.00	25.00/1	25.00	
Farmasi					
FPP Bisoprolol Fumarate 5 mg Tablet	0.90/30	27.00	.90/30	27.00	
FPP Atorvastatin 20 mg Tablet	3.50/30	105.00	3.50/30	105.00	
FPP Insulin Pre-mixed 100IU/ml Penfill (	15.70/6	94.20	15.70/6	94.20	
FPP Metformin HCl 500 mg Tablet	0.10/60	6.00	.10/60	6.00	
FPP Acetylsalicylic Acid 100 mg Glycin	0.20/30	6.00	.20/30	6.00	

*JUMLAH KOS SEBENAR	263.20 DR
JUMLAH AMAUN DICAJKAN	288.20 DR
AMAUN DEPOSIT	0.00
AMAUN PENGECUALIAN/TIDAK DICAJ	0.00
AMAUN TUNGGAKAN	0.00
JUMLAH SUBSIDI KERAJAAN	**25.00 CR**
AMAUN PERLU DIBAYAR(Bil Semasa+Tunggakan)	**288.20**

Ringgit Malaysia : Dua Ratus Lapan Puluh Lapan Dan Sen Dua Puluh Sahaja.