CHAPTER 1

GENERAL BACKGROUND

1.1 INTRODUCTION

Issues of aging population have long been a concern in developed countries where the elderly constitute a sizeable proportion of the population. However, following the adoption of the World Plan of Action on Aging in 1982, considerable attention has been given to the implications of population aging in the developing countries as well. The urgency of the issues stems from the fact that population in the developing world is aging at a much faster pace and involving larger number than was the case in the West.

According to the United Nations, a population is considered 'aged' when more than 7 per cent of its members are of age 65 years and over, or more than 10 per cent are of age 60 years and over. The cut-off age of 60 years is adopted by most Asian countries in defining the elderly because it is generally assumed that most persons would retire by this age. Individuals may also be considered aged before they enter their 60s in many less developed countries (Hugo, 1993).

In 1980, the number of elderly aged 60 and over in the developing countries have already outnumbered those in the developed world by 44.8 million persons (Table 1.1). This number is expected to increase rapidly such that by the year 2000 the aged population in the developing world is expected to increase by an additional 164 million,
as compared to an additional 60 million in the developed world. Constrained by limited resources, many developing countries will have to grapple with the mounting problems posed by the rapid increase in the elderly population.

Table 1.1  Number and Percentage of Elderly Population (in thousand) in Developed and Developing Countries, 1980-2025

<table>
<thead>
<tr>
<th></th>
<th>1980</th>
<th>1990</th>
<th>2000</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>World</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td>4,444,352</td>
<td>5,284,832</td>
<td>6,158,051</td>
<td>8,294,341</td>
</tr>
<tr>
<td>Population 60+</td>
<td>380,260</td>
<td>486,796</td>
<td>604,705</td>
<td>1,181,183</td>
</tr>
<tr>
<td>Percentage</td>
<td>8.56</td>
<td>9.21</td>
<td>9.82</td>
<td>14.24</td>
</tr>
<tr>
<td><strong>Developed Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td>1,079,945</td>
<td>1,143,358</td>
<td>1,185,536</td>
<td>1,238,406</td>
</tr>
<tr>
<td>Population aged 60+</td>
<td>167,717</td>
<td>201,481</td>
<td>228,036</td>
<td>327,300</td>
</tr>
<tr>
<td>Percentage</td>
<td>15.13</td>
<td>17.62</td>
<td>19.23</td>
<td>26.43</td>
</tr>
<tr>
<td><strong>Developing Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td>3,364,407</td>
<td>4,141,474</td>
<td>4,972,515</td>
<td>7,055,935</td>
</tr>
<tr>
<td>Population aged 60+</td>
<td>212,543</td>
<td>285,315</td>
<td>376,670</td>
<td>853,883</td>
</tr>
<tr>
<td>Percentage</td>
<td>6.32</td>
<td>6.89</td>
<td>7.58</td>
<td>12.10</td>
</tr>
</tbody>
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Note: The figures for 1980 are estimates while other figures are medium variant projections.

While the age structure of the population in Malaysia is still considered 'youthful', signs of population aging have emerged in the 1970s, largely as a result of a decline in fertility. The total fertility rate had declined from 5 children per woman in 1970 to about 3 in 1991 (Department of Statistics, 1975, 1992). This decline can be attributed to marriage postponement and increased contraceptive use consequent upon rapid socio-economic development. The crude death rate has also declined to a rather low level, from 7.3 per thousand population in 1970 to 4.9 in 1991. Over the same
period, life expectancy at birth increased from 61.6 years to 67.7 years for men and from 65.6 years to 72.4 years for women (Department of Statistics, 1975 and 1992).

Between 1970 and 1990, the number of elderly population aged 60 and over in Malaysia has increased substantially from 539.1 thousand to 1.08 million. The elderly constituted some 5.2 per cent of the total population in 1970 and this has increased to 6.1 per cent in 1990 (Department of Statistics, 1975, 1991). It is projected that this figure will increase to 6.5 per cent or 1.45 million persons in the year 2000 and 12.6 per cent or 3.96 million persons in the year 2025 (United Nations, 1994). This means that the elderly population would increase by 169 per cent between 1970 and 2000 and show a seven fold increase between 1970 and 2025. In view of the rapid increase in the number of elderly, the implications of population aging are indeed tremendous.

Concomitant with rapid social and economic development, the family structure has undergone significant changes. The extended family system has given way to the nuclear family or even single member households. This together with a host of other changes such as increasing female labour force participation have eroded traditional source of care for the elderly. Consequently, population aging will present a major challenge in the provision of physical care and socio-economic support for the elderly.

1.2 SIGNIFICANCE OF STUDY

Population aging has important implications in the provision of health care and socio-economic support of elderly persons. With prolongation in life span, more people will live to very old ages. Unless the present retirement age of 55 is revised upwards,
more and more elderly will spend the extra years outside the labour force, especially with the shift from rural agriculture economy to urban-based wage employment. There is therefore a need for programme intervention to promote optimum utilization of the human resource of a large number of elderly who are still healthy and capable of working.

An examination of the age structure of the population shows that the old-old constitute an ever increasing proportion of those aged 60 and over. With the aging of the elderly, there will also be an increase in the number of persons having physical and mental disabilities and various health limitations and chronic diseases. In line with the government's efforts to promote a caring society, it is important to ensure that adequate health care and socio-economic support are extended not only for the present cohort of elderly but also the growing number in the future. A better understanding of the situation facing the present elderly population based on indepth analysis is necessary for policy formulation and programme implementation.

In view of the growing importance of an aging population and the dearth of research on the various aspects of the elderly, this study is carried out to provide a better understanding of health care practices and socio-economic support for the elderly in Peninsular Malaysia. Among others, this analysis will consider the living arrangement, financial and physical capabilities of the elderly as well as the provisions for their support and care, especially by their family members. These aspects will be analyzed in relation to the socio-economic background of the elderly, including their
present work status. The study will also examine the health status of the elderly, in the context of their ability to continue working and to participate in various daily activities.

The specific objectives of this study are:

i) To analyse the demographic profile of the present elderly population;

ii) To investigate the health status and health care practices of the elderly in relation to their socio-economic characteristics to determine to what extent they can continue to work and to play an important role in the community;

iii) To investigate the financial independence and socio-economic support of the elderly in terms of living arrangement and intergenerational help in relation to their socio-economic background and health condition.

1.3 REVIEW OF LITERATURE

The tempo and size of the aging population vary from one country to another and across regions due to different stages of socio-economic development and social and cultural systems (Tan, 1992d; Hugo, 1993). In the developed countries at the end of demographic transition, the elderly already form a significant proportion of the total population. Developing countries, on the other hand are still at an early stage of the transition. However, various recent studies have concluded that in the coming decades, population aging will be the dominant trend of a large part of the Asia and the Pacific countries, most notably in Western Asia (Concepcion, 1987; Leete, 1987; Kuroda, 1991; Tan, 1992b, Cheung, 1993b). It is predicted that by the turn of the century, Asia will
have 86 per cent of the aging population in the less developed countries and 51 per cent of the world's aging population (Kuroda, 1991).

Many of the developing countries in Asia have become increasingly aware of a number of aging issues related to income security, housing, health, lack of appropriate or adequate services, to feelings of isolation and loneliness. Indeed, aging poses a continuing challenge not only to the individual but also the family, community and country. The aging issues facing developing countries are expected to be relatively more severe than those of developed countries primarily because, as a result of a more rapid demographic transition, the process of population aging has been and will be considerably faster (Leete, 1987). For example, population aging in Singapore is well under way due to the rapid decline in fertility and also adult mortality. In 1990, about one in eleven Singaporeans was of age 60 and over, and this will increase to about one in four persons by the year 2030. The proportion of elderly in Singapore is therefore expected to increase from 9 per cent to 26 per cent of the population over this period (Cheung, 1993b: 86).

Changes in the family structure and gradual erosion of traditional family values and sources of support have been found in the more modernized sectors in Asia (Chan, 1985; Concepcion, 1987; Martin, 1989, 1990; Cheung, 1991; Tan, 1992d; Ogawa, 1994). In the past three decades, there has also been a declining trend of the elderly in coresidence with adult children (Martin, 1988; Kendig, 1989; Chang and Ofstedal, 1991; DaVanzo and Chan, 1994).
The situation of the elderly in different parts of Asia varies according to the level of social and economic development. It is also influenced by the type of family systems operating in the society, some of which may be disintegrating. Patriarchal family systems are common in East and South Asia such as in China, Japan, Northern India and Pakistan (Dyson and Moore, 1983). In such a system, males have life-long membership in the family to which they are born, whereas females are only temporary residents of their natal family and join their husbands' families when they marry (Mason, 1992). Gender asymmetries therefore are likely to put elderly women more at risk of non-support and non-care since their security depends on the willingness of fathers, husbands or sons to support them, whereas male security rests on the ownership and control of family property (Mason, 1992). On the other hand—the bilateral family systems found mainly in South-East Asia such as Southern India and Sri Lanka are organized on different principles (Dyson and Moore, 1983). Households in these family systems tend to be organized around the individual married couple, with a tendency towards coresidence or living in proximity with the wife's parents rather than the husband's parents (Mason, 1992).

However, the trend towards decreasing coresidence with adult children does not necessarily lead to an erosion of support and care of the elderly by younger family members (Mason, 1992; Kono, 1994). Although trend data on support of elderly are difficult to obtain, recent cross-sectional statistics suggest that family support are responsible for 70 to 80 per cent of care received by elderly persons who are in need of help (Andrews et al., 1986; Hermalin et al., 1992; Knodel et al., 1990). The World
Health Organization surveys on health care of the elderly conducted in Malaysia, the Republic of Korea, Philippines and Fiji in 1983 also found family members remain the principal care providers (Andrews et al., 1986). The findings in Malaysia indicate that 72 per cent of the elderly live with their children (Andrews et al., 1986). Likewise, the ASEAN (Association of South-East Asian Nations) Ageing Surveys conducted in the Philippines, Indonesia, Malaysia, Singapore and Thailand in 1984 reported that children or grandchildren represented the main source of support for the majority of the elderly, with only less than 10 per cent of elderly respondents in each country living alone (Chen and Jones, 1989). This is again verified by findings from the 1988 Second Malaysian Family Life Survey (MFLS-II) survey in Malaysia; an elderly with one adult child has a lower probability of co-residence compared with one who has five adult children: 60 per cent versus 80 per cent (DaVanzo, 1992).

Although family is the key emotional and financial support of the elderly, efforts in integrating the elderly in the mainstream of socio-economic development and adequate old age saving and social security are equally important (Osteria, 1993; Abdullah, 1993; Choe, 1993). However, in most developing countries, resources are first claimed by development projects, resulting in under-development of the social security system (Cheung, 1993a).

Old age may result in diminishing physical and mental capabilities such as dementia and other chronic diseases, due to deterioration, malfunction or accidents. Findings of a WHO survey carried out in Malaysia in 1983 found that visual disorders
were the most common problem of elderly persons, followed by chewing problems, hearing disorders and difficulty in walking long distances (Andrews et al., 1986). About 10 per cent of the elderly were unable to perform one or more of the listed simple activities. Old age was found to affect the cognitive skill and this was found to be more severe among elderly women than men. A survey on Family Care of the Elderly conducted in the Klang Valley in 1991 reported that more than half of the elderly persons in the sample experienced weakness in the limbs. Other common health problems reported by the elderly persons were high or low blood pressure, heart diseases, diabetes, eye disorders and respiratory diseases (Tey and Cho, 1992). Generally, health care problems are more likely to relate to women since they comprise the majority of the elderly on account of longer life expectancy as compared to the men. (Chen, 1985; Martin, 1988; Chan, 1992c).

While enjoying a longer life expectancy, women typically marry men 3-5 years older than themselves, and as such they are more likely than men to live in old age without a spouse (Tey and Abdullah, 1993). This is in part also due to the higher propensity of remarriage among men than women. There are therefore implications on gender asymmetry in the care and support of the elderly: elderly men can often rely on their wives for care, and this is found to be generally true even in the West (Martin, 1988), but older women, often after having first cared for their aging parents or parents-in-law, then for an aging husband, may themselves end up without a care provider (Chan, 1985, 1992b; Mason, 1992). In Malaysia, this problem may be serious especially
for Chinese females as an increasing proportion of them also do not marry (Chan, 1992a).

An analysis of the Malaysian Family Life Survey-II data shows that coresidence is influenced by the benefits, costs, opportunities and preferences of coresidence versus separate living arrangements. For instance, married elderly are more likely to coreside with an adult child when housing costs are higher or when they are in poor health (DaVanzo and Chan, 1994). One in five among those who were partially disabled did not coreside with their own children, and this proportion is lower than those who were fully able or fully disabled (Tey and Cho, 1992).

Based on a cursory review of the literature, it would appear that health and other problems affecting the elderly population can be tremendous. Hence, with further extension of life involving an increasingly larger number of elderly persons, such problems would be further compounded. Moreover, the standard of skills and knowledge in health care is presently inadequate to cope with the health and social problems of the elderly (Knodel et al., 1992b). Added to this is the rising cost of health care; the cost implications and burden may be too heavy for many individuals, families and countries to bear (Ogawa, 1989, 1990). Hence, early preparation through an indepth understanding of all aging issues would be advantageous to all concerned. Despite its importance, systematic research on the elderly and their support systems in developing countries is only at the infancy stage. In Malaysia, past studies on the elderly have tended to deal only with their levels, trends and patterns. More recently,
however, some attempts have been made to examine the socio-economic impacts on living arrangements and health care of the elderly as well as the developmental aspects of aging (see, for example Masitah and Nazileh, 1986; Haaga et al., 1990; Tey and Cho, 1992; DaVanzo, 1994; Chan, 1995; Tey and Tey, 1995).

The literature review indicates that the welfare approach is adopted in most studies on aging. Few studies have highlighted the need to ensure that the elderly remain in the mainstream of the economy. With a rising proportion and number of elderly persons, developing countries should adopt ways and means to facilitate their continued participation of the elderly in economic and social life, otherwise a very valuable resource will remain untapped.

1.4 RESEARCH METHODOLOGY

1.4.1 Framework Of Analysis

While health care and socio-economic support of the elderly can affect their well-being, due consideration should also be given to facilitate their continuing contribution as an important resource of the nation and remain independent. It is therefore important to understand the factors directly or indirectly affecting health care and socio-economic support. According to Cowgill and Holmes (1972), a complete socio-economic system would have to be taken into account to understand the direct or indirect influences affecting health care practices and socio-economic support of the elderly.
Based on such a framework, industrialization and urbanization are expected to adversely affect the care and support of the elderly (see Figure 1.1). At the initial stages of industrialization and urbanization, the proportion of families relying on family enterprise and farm business would fall, and new entrants into the labour force would be inclined to find jobs in the formal sector, such as in factories or offices. Consequently, the power and control of resources are likely to shift from the hands of parents to their children. Moreover, with the disintegration of traditional cultural values, which underlie the importance of filial piety, respect and care for the elderly, and younger generations preferring to set up their own autonomous households, coresidence with children is likely to become less common. All these changes will adversely affect health care practices and socio-economic support of the elderly.

Concomitant with rising education, more and more women are now engaged in formal sectors, and this results in the erosion of a traditional source of support for the elderly. The rural-urban exodus of the youths also means that the elderly who are left behind will now have fewer care-givers.

Decreasing family size results in fewer potential family workers and care-givers among the younger generations. This together with rural exodus of youths to urban centres have caused severe shortage of labour in certain cases and elderly persons have to continue working to older ages, some for financial reasons.
Figure 1.1 An Analytical Framework on Interrelationships between Socio-economic and Demographic Variables on Health Care and Socio-economic Support of the Elderly

Public Support System:
- Employee Provident Fund & Old-aged pension
- Health services utilization
- Community and Institutional support

Demographic Variables:
- Age
- Marital Status
- Family Size
- Place of Residence

Socio-economic Variables:
- Industrialization & Urbanization
- Education
- Ethnic Group

Health Status of the Elderly

Family Support System:
- Income support
- Home medical care & Physical Support
- Family ties
- Living Arrangement

Note: Modified using framework from Ogawa (1988: 122).
The migration of children, on the other hand, may result in an improvement in the financial position of the elderly through remittances from the children. However this depends largely in the strength of family ties and, more often than not, outmigration may undermine intergenerational family ties and support if children seldom return home or contact their parents.

The care and support of the elderly and the perpetuation of an independent and active lifestyle are also dependent on the availability of a public support system. It is expected that the elderly living in the urban areas and having higher education are more likely to have access to social security and health care services. With better nutrition and health practices, urban elderly are likely to be healthier than their rural counterparts. The availability of socio-economic or family support or their own financial independence may determine the type of health services utilized and hence the perpetuation of good health. This study will therefore examine some of the implied hypotheses provided in the framework.

1.4.2 Data Source

The main data source for this study is the SENIOR sample of the Second Malaysian Family Life Survey (MFLS-II), a household survey carried out in Peninsular Malaysia in 1988/89 by the National Population and Family Development Board and the Rand Corporation. The SENIOR sample consists of 1357 persons (671 men and 686 women) of age 50 years and over, who were residing in 398 enumeration blocks. These enumeration blocks were selected using a probability proportional to size (PPS)
sampling procedure based on an updated sampling frame provided by the Department of Statistics (DaVanzo et al., 1993).

For those living quarters with more than one eligible senior respondents, only one person was selected at random using the Kish selection procedure. In each enumeration block, the Indians who represent about 10.24 per cent of the population were sampled at twice the rate to ensure sufficient sample size for analysis. Hence, to obtain total estimates, the data have to be weighted to adjust for:

(i) over-representation of the Indians;
(ii) under-representation of senior persons who come from households with more than one eligible senior respondents.

The survey collected retrospective data on marriage, births, migration and work and provides data on family background, intergenerational help, and health and functional status.

The study analyses information elicited from respondents aged 50-79 instead of all respondents aged 50 and over because it is felt that those 80 and over may not provide very reliable information. In any case, elderly aged 80 and over only make up 2.7 per cent of the total sample. Respondents aged 50-59 are included in this study not only to ensure a reasonable sample size but also because many of them would be retiring soon, if they have not already done so. Inclusion of this group will also provide us an insight of the characteristics of the "soon-to-be" elderly. This information is therefore most crucial for policies and programmes on aging. Besides, the analysis is
restricted to the three main ethnic groups in Peninsular Malaysia: Malays, Chinese and Indians as 'other' ethnic group only make up 0.7 per cent of the total sample.

Secondary data will also be used where necessary to supplement the above data source. It should be pointed out that this study is largely confined to Peninsular Malaysia, which accounts for more than three-quarters of Malaysia's population, as data on East Malaysia, that is Sabah and Sarawak, are less easily available or reliable. Nevertheless, reference will be made of the total population of Malaysia where data permit.

1.4.3 Definition of Variables

Two aspects utilized in this study deserve further elaboration. Health status is based on the respondents' own assessment of whether it is "good", "fair", or "poor" as well as a range of activities they can perform, that is vigorous or moderate. The survey elicited information on health status using six items of activities. Socio-economic support refers to both physical and financial resources available to the elderly. Physical resource is indicated by living arrangement, that is whether the elderly live with younger persons and whether children or younger persons visit them regularly. Financial resource is indicated by whether the elderly have their own income, that is from their present job, provident funds, insurance or pension, and whether they receive remittances regularly from children or other relatives.

The main independent variables used in this study include age, gender, marital status, ethnic group, place of residence, education level and work status. As these
variables are measured in different scales, appropriate statistical techniques have to be used in the analysis.

1.4.4. Statistical Method

Various bivariate and multivariate procedures will be utilized to identify the characteristics of elderly and various factors affecting their health status and care and socio-economic support. Analysis will be carried out separately on the two areas of focus, socio-economic support and health status and care practices. Several models will be attempted, an example is the following functional form:

\[ Y = a_1 X_1 + a_2 X_2 + a_3 X_3 + \ldots + a_7 X_7 \]

where

\[ Y \quad \text{Whether elderly stay with adult children or not.} \]

\[ X_1 \quad \text{age of elderly.} \]

\[ X_2 \quad \text{gender of elderly, male or female.} \]

\[ X_3 \quad \text{place of residence, rural or urban areas.} \]

\[ X_4 \quad \text{ethnic group, Malay, Chinese or Indian.} \]

\[ X_5 \quad \text{number of surviving children.} \]

\[ X_6 \quad \text{education level, none, primary or secondary.} \]

\[ X_7 \quad \text{current work status, working or not working.} \]

\[ X_8 \quad \text{perceived health status, good, fair or poor health.} \]
For models such as this, where the dependent variable is dichotomous in nature, the Ordinary Least Squares (OLS) cannot be used because the variance of the error terms is not constant for all observations. Instead, logistic regression analysis is used. The logistic regression model is defined as follows:

\[ P \left( Y_i = 1 \right) = \frac{1}{1 + e^{-z}} \]

where

\[ z = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + \ldots + B_k X_k \]

\( Y_i \) is assumed to depend on \( k \) explanatory variables, \( X_k, k=1,2,3,\ldots,k \). The parameters of the model are estimated using the SPSS LOGISTIC REGRESSION Procedure through the maximum-likelihood method.

1.5 OUTLINE OF THE STUDY

This thesis will consist of 5 chapters. The first chapter presents the importance of study, review of literature, research methodology and framework of study. The second chapter will discuss the levels, processes, the past and projected trends of aging and its causes, the geographical pattern of aging, the implications of aging and the profile of the elderly population. This is followed by an analysis of health status and health care practices of the elderly in relation to their socio-economic and demographic characteristics using bivariate and multivariate analysis. Chapter 4 examines the socio-economic status and support of the elderly in terms of living arrangement and financial
support in relation to their socio-economic and demographic characteristics. The final chapter provides a summary of the findings and some policy recommendations. Relevant programmes are suggested based on the findings to improve the well-being of the elderly and ensure their continued participation in society.