CHAPTER I

INTRODUCTION

Background and Rationale

The gray population is the majority population in the world. The proportion of people age 60 and over is growing faster than any other age group. Between 1970 and 2025, a growth in older persons of some 694 million, or 223 percent, is expected. In 2025, there will be approximately 1.2 billion people over the age of 60. By 2050, there will be about 2 billion, with 80 percent of them living in developing countries (World Health Organization [WHO], 2002).

Thailand, a developing country in southeast Asia, has experience a decline in the rate of population growth from 3.0 percent at the beginning of the Third National Social and Development Plan (1972-1977) to 1.2 percent at the end (Wongboonsin, K., 1998). The United Nations' projections indicate that compared to the total population, the proportion of young will decline to 19.6 percent in 2025 and 17.1 percent in 2050, while the proportion of the elderly will climb to 17.1 percent and 27.1 percent in 2025 and 2050. Also, the proportion of the oldest will increase to 1.7 percent and 5.5 percent during that period. If these projections are accurate, Thailand's population will have a much larger proportion of older people and a much smaller proportion of young (Kanchanakijsakul, M.,2002).

Elderly People as a Special Group

Elderly people are the one group that needs to be considered as a special group for the following reasons:

1. Dependency and life expectancy

As mentioned above, the larger proportion of aging is affected by decline in the proportion of children and young. Therefore, it directly affects the dependency ratio.

Old age dependency ratio (i.e. the total population aged 60 and over divided by the population age 15-60) is primarily used by economists and actuaries to forecast the financial implication of pension policies. However, it is also useful for those concerned with the management and planning of caring services (WHO, 2002). Old age dependency ratios are changing quickly throughout the world. In Japan (Table 1.1), there are currently 39 people over age 60 for every 100 in the age group 15-60. In 2025 this number will increase to 66.

Table 1.1: Old age dependency ratio for selected countries/regions

2002		2025	
Japan	0.39	Japan	0.66
North America	0.26	North America	0.44
European Union	0.36	European Union	0.56

In Thailand, the old age dependency ratio is continually increasing. There are currently 11 elderly persons for every 100 working age persons; this is expected to rise

to 14 by the 20th century's end and it's projected to top 20 elderly persons per 100 working aged by the year 2015 (Aging dependency, 2003).

The Life Expectancy at Birth

Although a drop in the fertility rate is the most influential determinant in the population's aging process, the mortality declines experiences in the last century have had a dramatic effect on survival to old age. Advances in public health and medicine improvement in children, nutritious food and a higher standard of living, together with the control of various communicable and infectious diseases has resulted in a gradual but dramatic increase in life expectancy at birth.

In Thailand, as life expectancy from birth becomes higher; it's significant to note that females have a higher life expectancy than males (Table 1.2). So, females who have a greater longevity will often outlive their spouses, resulting in the loss of support from that spouse, greater economic deprivations; prolonged widowhood and greater dependence on a female support system.

Table 1.2: Life expectancy at birth. Thailand 1965-2001

Year	Male	Female
1965	55.2	61.8
1975	58.0	63.8
1985	63	68.9
1995	69.9	74.9
2001	70.0*	75.0*

Source: National Statistic Office (NSO) report on the 1965-6, 1974-5, 1985-6, 1995-6

*Survey of Population Change, Population Gazette, Institute for Population and Social Research, Mahidol University 2001.

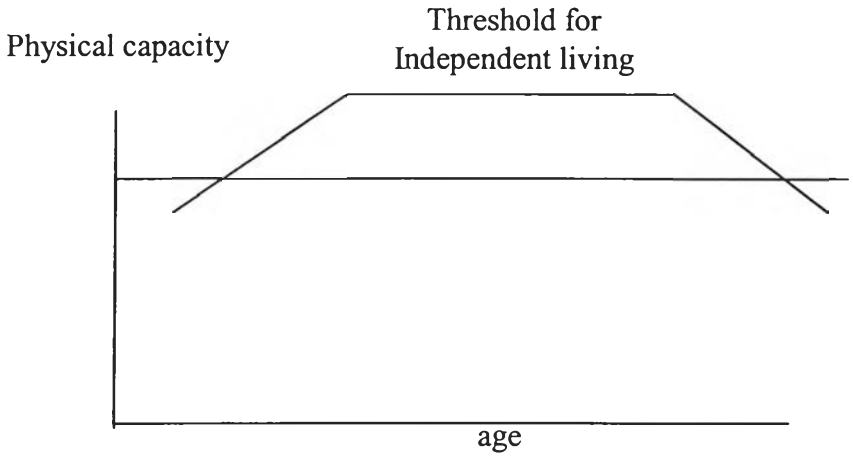
However, dependency ratios and life expectancy are two of the indicators that tell us about the state of affairs of the elderly people. But, there are some limits used in the dependency ratio, because most of the older people in all countries continue to be vital resource to their families and communities. These need to be considered with other relevant resources.

No matter what, as the population of aging lives longer and their dependency increases, it is accompanied by dramatic changes in family structure and roles, as well as labor patterns and migration. Urbanization, the migration of young people to cities in search of jobs, smaller families and more women entering the formal workforce means that fewer people are available to care for older people when they need assistance the most (WHO, 2002).

2. Loss of adaptability

Aging is a life long process, which begins before we are born and continuous through out life (Claudia, S., 1999). The physiological function reserve capacity (such as muscle strength), cardiovascular and respiratory fitness, skeletal integrity of older people declines with increasing age. Older people have to cope with an increasing "fitness gap" and this reduction in reserve capacity places older people closer to the threshold that will limit their functional independence and will reduce their capacity to adapt to new challenges presented by disease and social and environmental factors. Reduced adaptability makes elderly people vulnerable to the increased risk of complications of disease and more likely to suffer a "cascade of disasters" following an initial fairly trivial incident. Loss of adaptability also makes atypical presentations of

diseases more common as thresholds for normal performance are so precarious that minor degrees of impairment, regardless of the organ system involved, result in more general physical and mental disturbance.



Source: Shah Ebrahim 2001 Health of Elderly People, pp 1721

Figure 1: Relationship between age and physical capacity showing the effect of a threshold of independent living.

3. The double burden of disease

As mentioned earlier, elderly people are naturally faced with a physiological decline. As the nation becomes more industrialized, changing patterns of living and working are inevitably accompanied by a shift in diseases patterns. Especially in developing countries, while those countries continue to struggle with infectious diseases, malnutrition and complications from childbirth, they are faced with a rapid growth of non-communicable diseases (NCDs). This "double of diseases" strains already scarce resources to the limit (WHO, 2002).

The shift from communicable to NCDs is fast occurring in most of the developing countries, where chronic illnesses such as heart disease, cancer and depression are quickly becoming the leading causes of morbidity and disability. This trend will escalate over the next few decades. In 1990, 51 percent of the global burden of disease in developing and newly industrialized countries was caused by NCDs, mental health disorders and injuries. By 2020, the burden of these diseases will rise to approximately 78 percent (WHO, 2002).

In Thailand, like all other developing countries, the NCDs have become the leading causes of death and disability. The chronic diseases that most often occurred among Thai elder were hypertension, diabetes mellitus (Dm.), cardiovascular disease, and dementia (Jitapunkul, S., 1999, National Statistic Office 1995). The older the population gets, the more susceptible the people are to diseases. It is rare for any adult to have a single disease problem. Boonnag, S. & Titapunkul, S. (1999) found that cardiovascular diseases (stroke and hypertension), cancer, Dm, and chronic obstructive pulmonary disease (COPD) are the major causes of death in Thai adults.

Thus, the elderly people, who are considered to be a high-risk group for ill health, will have an impact on both social and health services in the future.

4. Increased risk of disability

Aging is the maturation and senescence of biological system. With each additional decade of life, adults will see a number of changes. (For example, a slowing in reaction time, psychomotor speed and verbal memory). They will also notice

declines in addiction behaviors; increase in wealth, leisure time and altruistic behaviors, among many other changes.

These changes may be more prevalent in older people because they are, in fact, true expressions of senescence. Or they may be more prevalent simply because of the greater length of time older people have lived, and hence the greater opportunity they have had to experience the risks or exposures that produce these affects. More than likely to be responsible for changes we consider aging. For example, the highest audible pitch people can hear declines with age, but it is also likely that long year of occupational exposure to noise, untreated ear infections during childhood, and an accumulation of minor injuries might contribute to loss of hearing in old age.

In addition, in both developing and developed countries, the accumulation of chronic diseases in the middle ages will be the major cause of disability in the later life. It is a significant and costly cause of disability, reducing the quality of life (WHO, 2001). An elder's disabilities make it difficult to carry our basic Activities of Daily Living (ADLs) such as bathing, eating, using the toilet and walking across the room. The likely hood of experiencing major disabilities dramatically increases in very old age.

In Thailand, Titapunkul, S. et al (1999) stated that the real health problems of Thai elder were disability and dependency. In 1996-1997, national health examination survey (NHES-2), using WHO's definition (long term disability means 6 months disabilities or more and total disabilities refers to all disabilities happened) it was found

that 25 percent of the older adults have been totally disabled. In addition, 19 percent of all elders have a long-term disability and 6 percent of the elderly dependents in ADSs. It is significant to note that female elders usually had a higher rate and severity than male elders (Titapunkul, S., 2000).

Therefore, vulnerable Thai elders need to be concerned and find a way to improve their health and quality of life urgently.

5. Providing care for Aging Population

As population age, one of the greatest challenge in health policy is to strike a balance among support for self care (people looking after themselves), informal support (care from family members and friends) and formal care includes both primary care (delivered mostly at community level) and institutional care (either hospital and nursing homes). While, it is clear that most of care individual need is provided by themselves or their information caregivers, most countries allot their financial resources inversely, i.e., the greatest share of expenditure is on institutional care (WHO, 2002).

While recent demographic trends in large number of countries indicate the increase in the proportion of childless women, change in divorce and marriage patterns and the over all much smaller number of children of future cohorts of older people, all contributing to shrink pool of family support. Unfortunately, formal health care and social services systems needs are unequally accessible to all. In many countries older people who are poor and who live in rural area have limited or no access to needed health care. A decline in public support for primary health care services in many areas

has put increased financial and intergenerational strain on older people and their families.

Then, balancing in support for elderly need to be considered. Empowering the elderly themselves and strengthen the role of caregivers will be recognized rather improving the quality of the formal services.

6. Cost of care

The potentially very high costs care for older people make a compelling case for considering older people as a special group. WHO (2002) stated that research in countries with aged populations has shown that aging per se is not likely to lead health care costs that are spiraling out of control for two reasons;

1. The major causes of escalating health care costs are related to circumstances that are unrelated to demographic aging of a given population. Inefficiencies in care delivery, building too many hospitals, payment systems that encourage ling hospital stays, excessive numbers of medical interventions and the inappropriate use of high cost technologies are key factors in escalations in health care costs. For example, in the United States and other OECD countries, new technologies were sometimes rapidly introduced and used where alternative and expensive procedures already existed and for which the marginal effectiveness was relative low.
2. Chronic disease exact a particularly heavy burdens because they contribute to disabilities, diminish quality of life and greatly increase health care costs. In USA, for example, more than 65 percent of American aged 65 years of older

have some from of cardiovascular disease and half of all men two thirds of women older that age 70 have arthritis. Nearly 40 percent, 12 million seniors were limited by chronic disease. Of these, 3 million were unable to perform ADLs thus placing care-giving demands on family and friends.

Therefore, demand on public health, medical, and social service were increasing. Currently, almost one third of total US health care expenditures, or $ 300 billion each year, is for older adults. By 2030, health care spending will increase by 25 percent simply because the population will be older, and this does not take into account inflation or cost of new technology.

However, in developing countries, within the current health services system, both inequity of access to services and overuse of ineffective occur. Older people who would benefit from specific interventions (such as coronary revascularization) do not receive them. Simultaneously, acute hospital beds are inefficiently used by older patients waiting for transfer to a different care sector, Increasing the barriers to gaining entry into secondary care for older people is obvious, but misplaced response. Ensuring for both health and social care costs are need to be considered in economic appraisal, rather than just costs of one or other system should ensure that the balance of care is of net benefit to society and not simply to player rather than another.

7. Aging policies

As mentioned earlier, population aging is one of humanity's greatest triumphs. At the 21st century, global aging will put increased economic and social demands on all

countries. At the same time, older people are precious, often ignored resources that makes an important contribute to the fabric of our societies. WHO argues that countries can afford to get old if government, international organizations and civil society enact " active aging'' policies and program to enhance the health, participation and security of older citizens. The time to plan and act is now (WHO, 2002).

That program and policies belong to the recommendation should be based on rights, need, preference and capacities of older people. The program also needs to embrace a life course perspective that recognizes the importance influence of earlier life experience on the way individual age. Then, improving QOL of the elderly people will directly support this policy.

With all those reasons, the elderly will be no doubt to become as a special group that needs to be concerned. Therefore, this study will be focus on the elderly group.

Aging Policy in Thailand

In 1986, the first long term plan for the elderly in Thailand (1986 - 2001) was drawn by the national committee for the elderly, to be used as the framework and guidelines for the authorized and associated organizations. However, there has been little progress in actions of the state organizations between 1982 – 1991. Active progress materialized after the passing of the national long – term plan of action for the elderly (1992 - 2011) in 1992 (Titapunkul, S., & Bunnag, S., 1999).

The national long term plan of action for the elderly (1992 - 2011) was prepared to support the implementation of government policies on the care of older persons. The objectives of the plan are;

1). To provide the elderly with general knowledge on changing age and environmental adjustments including health care

2). To provide the elderly with protection and caring of families and community in other welfare services as deemed necessary

3). To support roles of the elderly in participation of family and other activities

4). To emphasized the responsibility of the society for the elderly

(The national long term plan of the elderly, 1992-2011)

Major measures carried out under the plan include;

1). To disseminate knowledge to the elderly on self-adjustment, self health care, prevention of diseases, nutrition and proper exercise.

2). To extend social welfare services for the elderly, particularly for those without income or with insufficient income and with no patrons.

3). To provide education, training, or occupational counseling for the capable elderly to be equipped with knowledge and skills for employment.

4). To organize recreational activities for the elderly and transfer of knowledge and experiences to younger generations.

5). To campaign on the importance of extended family system and social values of respecting and paying gratitude to the ancestors and the elderly.

6). To cooperate with religious institution in dissemination morals as the spiritual help of the elderly including development of morals dissemination in diversified and appropriate methods.

7). To promote and support roles of communities and private sectors in providing welfare services for the elderly and providing the opportunity for them participate in various for the elderly.

8). To collect basic data concerned and to encourage study, research, monitoring and evaluation of the elderly issues.

Titapunkul, S., & Bunnag, S. (1999) recommendation for future trends of state actions for aging population should include as following;

1). Provide welfare of all aspects, particularly a pension for every Thai elderly. Social security and promotion of private pension insurance are unavoidable strategies in the future.

2). Strengthen family values and sustain family support for the elderly

3). Strengthen community participation in both social and health care sectors

4). Provide welfare and support schemes for caregiver of dependent elderly and disables.

5). Provide community care in both health and social sectors especially at the primary health care level.

6). Although institutional care is inevitable, these services should be provided only for the elderly need. Geriatric assessment is essential for the placement evaluation.

7). Improve ability of self-care among the elderly and this should cover not only health promotion and preventing and prevention but also simple curative care and rehabilitation. Alternative medicine is also invaluable.

8). Strengthen information care, which is also an essential domain of care for Thai elderly. Religious organization, senior citizen clubs and non-government organizations are important resources of informal care.

9). Provide continuous programs for both formal and informal education for the elderly and younger people nation-wide (preparing people for old age).

10). Provide education and training for both health and social personal.

In addition, the direction of Thailand Health Development Plan under the 9th National Economics and Social Development Plan (2002- 2006) focuses on human centered development within holistic approach strategies for sustainable development. The main strategies are to improve the quality of life of the Thai people (The Bureau of the health policy and planning. MOPH, 2001).

Then, it is significant to note that the study in the area of active aging, QOL of aging by using strategies of empowering the elderly, family, and community strongly support of aging policy of Thailand and WHO.

Quality of Life of the Elderly

Who adopted the definition of Quality of life (QOL) as an individual's perception of their position in life in the context of culture and value systems in which they live and in relation to their goal, expectations, standards and concerns (WHO1996). It is a broad ranging concept affected with a complex way by the persons'physical health, psychological state, level of independence, social relationships, personal beliefs and relationship to salient feathers of the environment and spiritual. WHO has therefore developed instruments for assessing quality of life that can be used in a variety of cultures setting while allowing the result from different populations and countries to be compared.

However, QOL assessment was almost unknown 15 years ago, it has rapidly become an integral variable of outcome in clinical research; over 1,000 new articles each year are indexed under Quality of life (Mathew, F., et al, 1998). QOL of the elderly people, for example, Farguhar's study (1995) on elderly people's definitions of QOL, found that there is more to QOL than health, indeed, social contacts appear to be as valued components of good QOL as health status.Asakawa, et al (2000) study on effects of functional decline on QOL among the Japanese elderly, the results show that 692 Japanese elderly had a high function capacity baseline. During a 2- year period of follow up, 12.3 percent of the subjects experienced function decline. Analysis of covariance with statistical tests for simple main effects revealed the changes in criterion variables significantly differed along with changes in functional status when effects to age, gender, and socioeconomic status were controlled. The subjects who experienced functional decline showed large decreases in the number of relatives, friends, and

neighbors having frequent contacts, a larger decline in life satisfaction, and a larger increase in depression than those without function decline. The results seem to confirm further the importance of functional health status as a prerequisite for higher QOL.

In Thailand. Sirisawang, W., Tawichasri, S., & Patumanond, S. (2000) using WHOQOL-BREF explor the elderly's quality of life in Chiang Mai. They found that most of the elderly resided in their houses, had good relationship with and were taken care by the families. Their living depends on their sibling (86.4%). Their incomes were considered adequate (77.8%) and most were spent on charities (87.0%). There were able to perform daily activities without any (92.6%), spent their time mostly on resting (90.7%), participated in religious activities (90.1%) and were able to go places alone (67.9%). The average quality of life was high, especially on psychosocial domain. Elderly male had better quality of life than female.

However, according QOL definition, that is, the individual's perception of their position in life. Therefore, in difference situation, how the elderly feel or satisfy may also change over time. In addition QOL does not have the same meaning in every culture (Sriruksa, P., 2001). Then, careful comparative studies of the various countries would be necessary the degree to which a common definition of contribute factors to QOL.

Thus, to improve the QOL of the elderly people. QOL assessment and based line data need to be explored under their culture, environment and policy of each area. The QOL assessment will be useful for the elderly health promotion planning, health

policy research, provide an important aspect of the routine auditing of health and social services, and help us to know the real situation form a holistic point of view.

Elderly People in Patthalung Province

Patthalung is the one small province in the south of Thailand. At present the number of elderly people in Patthalung are 50,282.The number of the elderly people increased during last three year with 0.14 percent. Similarly, the pattern of country, most of the elderly in Patthalung live in rural areas (Patthalung Provincial Health Office, 2003).

There is no study about health behaviors, social support, and access to service and health status among the elderly in this district. The existing data only shown that there are 2,945 elderly in this district. Activity the support for the elderly just only the MOPH policy implemented. What is the reality of the elderly problem? Assessment of the perceived social support, health behaviors, access to service and health status of elderly people will become in order to find out the strategies to improving the QOL among the elderly. Not only these activities help us in improving QOL but this activities support aging policy and the Aging Policy in Thailand also.

In rural areas of Papayom District, Patthalung Province, a province in the south of Thailand, the researcher is interested in studying the health status and factors related to health status of the elderly, and because Patthalung has a trend toward the number of elderly increasing. In 2001, the elderly comprised 9.1 percent of the total population, while in 2003, the elderly comprised 10.3 percent of the total population and it is

expectation that, in 2010, the elderly will comprise 12.58 percent of the total population (Patthalung Provincial Health Office, 2002-2003). It showed that there is a tendency for a similar increase in the number of the elderly throughout the country. The increasing number of elderly leads to many problems, such as health problems, illness problems and treatment problems. For the reasons above, the researcher is interested in studying the health status and factors related to health status of the elderly. The results can be used as a guideline to improve the health care service system for the elderly in Papayom District, Patthalung Province.

Research Questions

1. What is the health status of elderly in Papayom District, Patthalung Province?
2. What are the factors health behaviors, social support, access to health service, that related to the health status of elderly in Papayom District, Patthalung Province?
3. What are the relationships between the health behaviors, social support, access to health service and health status of elderly in Papayom District, Patthalung Province?

General Objective

To assess to the health status of elderly in Papayom District, Patthalung Province.

Specific Objectives

1. To examine the health status of elderly in Papayom District, Patthalung Province.
2. To describe health behaviors, social support and access to health service of elderly in Papayom District, Patthalung Province.
3. To explore the relationship between health behaviors, social support, access to health service and health status of elderly in Papayom District, Patthalung Province.

Research Hypothesis

1. Characteristics of the elderly, socio-demography factors; gender, age, marital status, education level, occupation and type of illness, related to health status of the elderly in Papayom' District of Patthalung Province.
2. Health behaviors, social support and access to health service related to health status of the elderly in Papayom' District of Patthalung Province.

The conceptual framework of this study is summarized in the diagram.

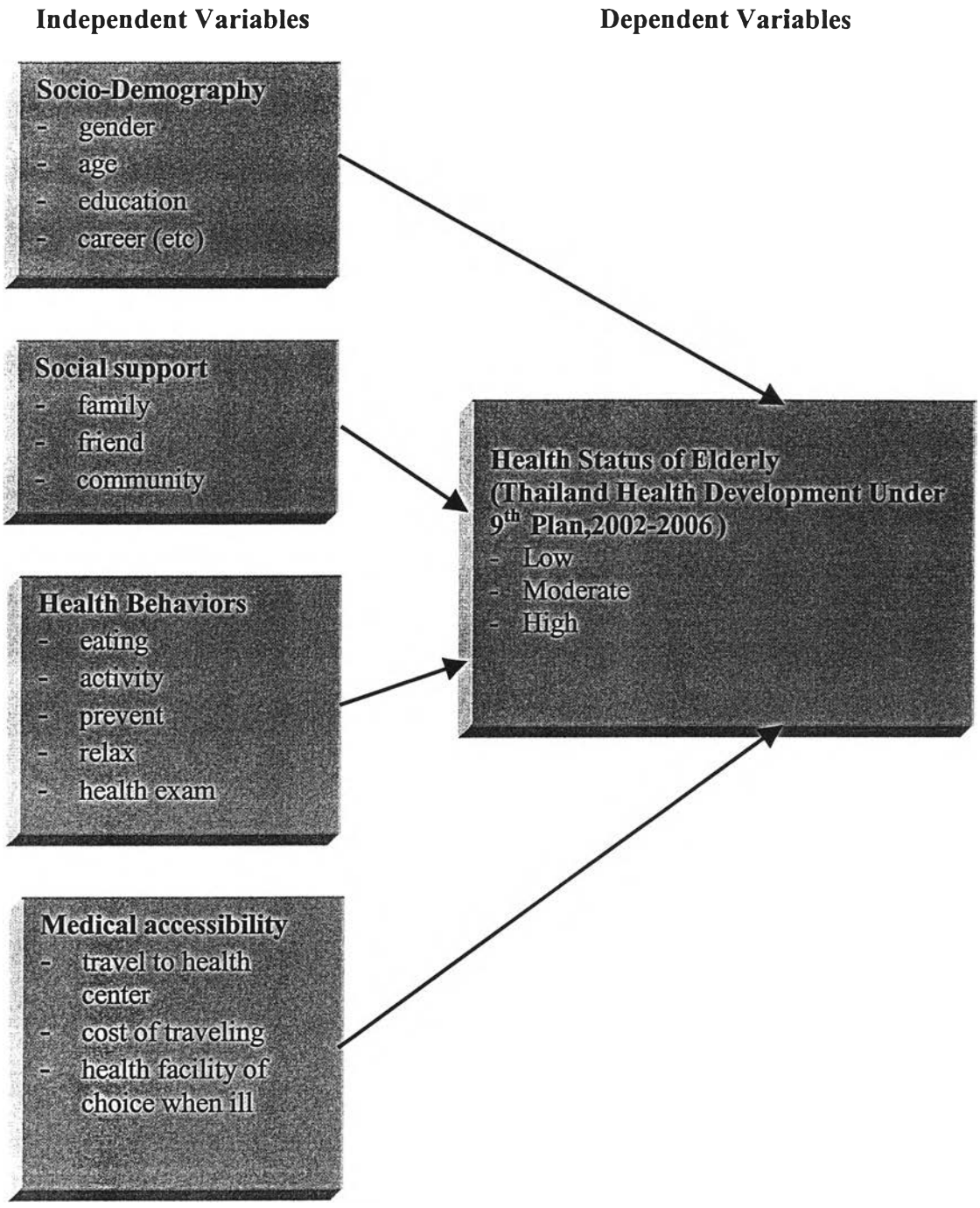


Figure 2: Conceptual Framework

Operational Definitions of Variables

1. **Health status** is defined as the physical health situation of the elderly during the three months prior to the survey. It can be assessed using two methods, namely, interviewing the elderly about any illness during the previous three months, and assessing the quality of life by indication of the Bureau of the health policy and planning. MOPH 2001.
2. **Health behavior** is defined as the pattern of health promoting activities once the elderly is acted on daily living. This is categorized into:
   2.1 Eating, including 3 meal for health food 5 groups.
   2.2 Activity, including all actions on daily living; working, walking and exercise.
   2.3 Preventing behaviors, including coffee ,cigarette, Alcohol ,pipe inhalation
   2.4 Tension management, including psychology care; interest in religion.
   2.5 Physical annual, including health examination by doctor or health personnel.
3. **Medical accessibility (accessibility of health service),** including receiving the health level service and opportunities.
4. **Social support**, including all support from family, friends and community.
5. **Elderly** is defined as both male and female persons who are sixty years of age and above.
6. **Gender** is defined as male and female (elderly).
7. **Marital status** is defined as the current marital status of the elderly. It is classified into married, single, widowed and divorced/ separated.

8. **Education level** is defined as the highest year of education of the elderly. It can be divided into no education, primary education, and secondary education and higher than secondary education.
9. **Occupation** is defined as the current working status from which they earn income. It can be divided into no occupation, retired, government official, trader, agriculture and employer.

Scope of the Study

This study was conducted with both males and females aged 60 years and over residing in rural areas of Papayom District, Patthalung Province, who were able to communicate, walk and no crippled and had no speech problems.

Implication of the Research Results

1. The study will be provided useful recommendation for stakeholders and policymakers.
2. The finding will be useful for Thai elderly. Even through recommendation are offered on the basis of results from the study of only a rural community, the finding are important for strategic planning and delivery of appropriate and effective support for the elderly people living in the similar areas. That will be affective for the elderly people because of most of them live in rural areas of Thailand.
3. The data will be useful for the elderly people research in the future.